



uOttawa

L'Université canadienne  
Canada's university

**FACULTÉ DES ÉTUDES SUPÉRIEURES  
ET POSTDOCTORALES**



**uOttawa**

L'Université canadienne  
Canada's university

**FACULTY OF GRADUATE AND  
POSTDOCTORAL STUDIES**

**Heather M. Moulden**

AUTEUR DE LA THÈSE / AUTHOR OF THESIS

**Ph.D. (Clinical Psychology)**

GRADE / DEGRÉ

**School of Psychology**

FACULTÉ, ÉCOLE, DÉPARTEMENT / FACULTY, SCHOOL, DEPARTMENT

**Social Competence and Sexual Aggression: Social Intelligence, Cognitive Distortions, and Victim  
Empathy in Men Who Sexually Offend Against Children**

TITRE DE LA THÈSE / TITLE OF THESIS

**Philip Firestone**

DIRECTEUR (DIRECTRICE) DE LA THÈSE / THESIS SUPERVISOR

CO-DIRECTEUR (CO-DIRECTRICE) DE LA THÈSE / THESIS CO-SUPERVISOR

EXAMINATEURS (EXAMINATRICES) DE LA THÈSE / THESIS EXAMINERS

**Jean Proulx**

**Elisa Romano**

**Jane Ledingham**

**Ralph Serin**

**Gary W. Slater**

Le Doyen de la Faculté des études supérieures et postdoctorales / Dean of the Faculty of Graduate and Postdoctoral Studies

Running head: SOCIAL COMPETENCE AND SEXUAL AGGRESSION

Social Competence and Sexual Aggression: Social Intelligence, Cognitive Distortions,  
and Victim Empathy in Men Who Sexually Offend Against Children

Heather M. Moulden

Thesis submitted to the School of Graduate Studies and Research of the University of  
Ottawa in partial fulfillment of the requirements for the degree of Doctor of Philosophy

School of Psychology

Faculty of Graduate and Postdoctoral Studies

University of Ottawa

Ottawa, Ontario, Canada

July 3, 2008



Library and  
Archives Canada

Bibliothèque et  
Archives Canada

Published Heritage  
Branch

Direction du  
Patrimoine de l'édition

395 Wellington Street  
Ottawa ON K1A 0N4  
Canada

395, rue Wellington  
Ottawa ON K1A 0N4  
Canada

*Your file* *Votre référence*

*ISBN: 978-0-494-48408-1*

*Our file* *Notre référence*

*ISBN: 978-0-494-48408-1*

**NOTICE:**

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

**AVIS:**

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

---

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

  
**Canada**

## Abstract

Social functioning deficits have long been implicated in explanations for sexual abuse. Historically, this understanding has been rooted in research findings, which differentiate child molesters from nonsexual offenders on constructs such as social skills, empathy, and cognitive distortions. The goal of the current study was to examine how these various indicators of social functioning are combined to explain sexual aggression in child molesters. To this end, a model of general aggression in non offenders was adapted and tested to explain sexual and general aggression child molesters. Specifically, it was proposed that poor social intelligence contributes to negative attitudes and beliefs about sexual contact with children (i.e. cognitive distortions), which inhibits capacity for victim specific empathy responses, which in turn leads to sexually aggressive behaviour. Participants were incarcerated men who had been convicted of a sexual offence against a child ( $N = 122$ ) and men who may or may not be incarcerated, but have never admitted to, been charged with, or convicted of a sexual offence ( $N = 61$ ). As predicted, child molesters (relative to non child molesters) reported poorer social intelligence, victim specific and general empathy deficits, and greater cognitive distortions about sexual contact with children. Although these factors were not predictive of sexual aggression, general empathy accounted for significant variance in the prediction of general aggression in child molesters. Interestingly, cognitive distortions made virtually no direct contribution to aggression. However, support was found for a negative influence of cognitive distortions on general empathy, which was then negatively related to general aggression. The results of this study were found after controlling for a number of confounding variables, which suggests that social competency factors are relevant over

and above demographic and criminal history factors in understanding aggression in child molesters. This study demonstrates the importance of integrating independent factors into a testable model, has implications for etiological theories, and contributes to understanding the complex role of social functioning factors in aggression.

### Acknowledgements

I would like to start by thanking my supervisor, Dr. Philip Firestone, for his guidance and wisdom. He has provided invaluable academic and professional support, and I feel fortunate to have had such a mentor and advisor during my doctoral training. I would also like to thank the members of the examining committee, Dr. Jane Ledingham, Dr. Ralph Serin, Dr. Elke Reissing, Dr. Elisa Romano and Dr. Jean Proulx for their valued support, suggestions, and collegiality. Special thanks are due to Dr. William Marshall for his mentorship, inspiration and guidance, and to Liam Marshall, Dr. Geris Serran, and Jean Webber for their support, knowledge, and friendship.

Thank-you to Correctional Service of Canada for accommodating and facilitating data collection for this project and special thanks to the staff and clinical directors at each of the institutions in the Ontario Region for facilitating the completion of this project. Specifically, I would like to acknowledge Dr. Yolanda Fernandez, Dr. Bruce Malcolm, Dr. Jan Looman, Dr. Edward Peacock, and Dr. William Walker, as well as the support staff who provided great practical assistance and generosity with their time. Thank-you also to Drew Kingston, Dr. Kevin Nunes, Dr. Audrey Wexler, and Dr. Dwayne Schindler for their consultation and advice. I would also like to acknowledge financial support from a Social Sciences and Humanities Research Council of Canada Doctoral Fellowship and Ontario Graduate Scholarships. I am very grateful to the men who agreed to participate in this research; their contributions are invaluable.

Finally, I would like to express very sincere thanks to my husband, Dave Pitt, for his encouragement and love, as well as to my family and friends for their faith and support throughout this project and my doctoral training.

## Table of Contents

|   | Page |
|---|------|
| Abstract  | ii   |
| Acknowledgements  | iv   |
| Table of Contents   | v    |
| List of Tables  | ix   |
| List of Figures   | xi   |
| Introduction and literature review  | 1    |
| Theories of child sexual abuse  | 2    |
| Evidence for the role of social functioning in aggressive behaviour         | 6    |
| Social intelligence and behaviour   | 7    |
| The relationship between empathy and social intelligence                    | 11   |
| Cognitive distortions and sexual aggression                                 | 13   |
| Social intelligence, empathy and cognitive distortions in sexual aggression | 15   |
| Present Study   | 17   |
| Method  | 20   |
| Participants  | 20   |
| Measures and Materials  | 23   |
| Response bias   | 24   |
| Social intelligence   | 25   |
| Cognitive distortions   | 27   |
| General and victim empathy  | 28   |
| Aggression  | 30   |

|   |    |
|---|----|
| Procedures  | 33 |
| Incarcerated Participants   | 33 |
| Community Participants  | 34 |
| Scoring   | 34 |
| Data Screening and Treatment                                      | 38 |
| Univariate  | 39 |
| Multivariate  | 39 |
| Results   | 41 |
| Participant characteristics                                       | 41 |
| Relationships between social functioning variables and aggression | 43 |
| Hypothesis 1: Group comparisons                                   | 44 |
| Social intelligence   | 44 |
| General and victim empathy  | 45 |
| Cognitive distortions   | 46 |
| General aggression  | 46 |
| Hypothesis 2: Predicting aggression in child molesters            | 47 |
| Sexual aggression   | 48 |
| General aggression  | 49 |
| The role of cognitive distortions in predicting aggression        | 51 |
| Hypothesis 3: The route to aggression in child molesters          | 52 |
| Discussion  | 56 |
| Hypothesis 1: Group comparisons                                   | 57 |
| Hypothesis 2: Predicting aggression in child molesters            | 61 |

|   |     |
|---|-----|
| Hypothesis 3: The route to aggression in child molesters                          | 66  |
| Clinical Implications   | 67  |
| Summary of findings, limitations, and future research                             | 69  |
| References  | 76  |
| Appendices  | 109 |
| Appendix A: Consent form presented to nonincarcerated/nonoffender<br>Participants | 109 |
| Appendix B: Consent for presented to incarcerated participants                    | 111 |
| Appendix C: Certification of ethics approval: University of Ottawa                | 113 |
| Appendix D: Approval to conduct research, Correctional Service<br>Of Canada       | 114 |
| Appendix E: Sample newspaper recruitment posting                                  | 115 |
| Appendix F: Demographic information form  | 116 |
| Appendix G: Sexual behaviour screening form                                       | 117 |
| Appendix H: Paulhus Deception Scales  | 120 |
| Appendix I: Social Intelligence Measure-Adult Version                             | 123 |
| Appendix J: The Factor Tests of Social Intelligence                               | 124 |
| Appendix K: Molest Scale  | 158 |
| Appendix L: Child Molester Empathy Measure  | 162 |
| Appendix M: Empathy Measure-Adult Version   | 167 |
| Appendix N: Empathy Skills Questionnaire-Self-Report                              | 168 |
| Appendix O: Aggression Questionnaire  | 171 |
| Appendix P: Direct and Indirect Aggression Scale-Adult Version                    | 173 |

|   |     |
|---|-----|
| Appendix Q: Rapid Risk Assessment for Sexual Offence Recidivism                                 | 175 |
| Appendix R: Request for correctional staff cooperation in participation<br>recruitment          | 176 |
| Appendix S: Research recruitment script to be read by correctional staff<br>to eligible inmates | 177 |
| Appendix T: Research recruitment script to be read by researcher to<br>eligible inmates         | 179 |
| Appendix U: Closing statements  | 181 |
| Appendix V: Debriefing form presented to incarcerated participants                              | 172 |
| Appendix W: Phone script for recruitment of community participants                              | 183 |
| Appendix X: Debriefing form presented to nonincarcerated/nonoffender<br>participants            | 185 |

## List of Tables

|   |     |
|---|-----|
| Table 1. Description of participants  | 88  |
| Table 2. Collapsed group differences for demographic information  | 91  |
| Table 3. Group differences (ANOVAs) on measures of social intelligence, empathy, cognitive distortions, and aggression                    | 93  |
| Table 4. Intercorrelations for social functioning and aggression variables for child molesters  | 96  |
| Table 5. Intercorrelations for social functioning and aggression variables for non child molesters  | 97  |
| Table 6. Levene's test for homogeneity of variance  | 98  |
| Table 7. Group differences between child molesters and non child molesters on social functioning and aggression                           | 99  |
| Table 8. Linear regression predicting sexual aggression from social intelligence, empathy, and cognitive distortions in child molesters   | 101 |
| Table 9. Linear regression predicting sexual aggression with limited covariates in child molesters  | 102 |
| Table 10. Linear regression predicting general aggression from social intelligence, empathy, and cognitive distortions in child molesters | 103 |
| Table 11. Linear regression predicting general aggression with limited covariates in child molesters                                      | 105 |
| Table 12. Linear regression testing reduced model to predict general aggression in child molesters  | 106 |

|   |     |
|---|-----|
| Table 13. Hierarchical regression testing unique contribution of cognitive distortions in prediction of general aggression in child molesters | 107 |
| Table 14. Series of regressions for path analysis evaluating relative routes to aggression in child molesters                                 | 108 |

List of Figures

|   |    |
|---|----|
| Figure 1. Illustration of relationship between social intelligence, cognitive distortions, victim empathy and aggression in child molesters based on proposed path analysis | 86 |
| Figure 2. Direct and indirect paths between social intelligence, cognitive distortions, empathy, and aggression in child molesters  | 87 |

Social Competence and Sexual Aggression: Social Intelligence, Cognitive Distortions,  
and Victim Empathy in Men who Sexually Offend Against Children

A fundamental goal of psychology is to explain the causal mechanisms of human behaviour, and in doing so, test, critique, and refine etiological theories. Current theoretical explanations of sexually aggressive behaviour are multifactorial, and consider clusters of problems associated with the commission of child sexual abuse, such as intimacy deficits, social skills problems, deviant sexual arousal, and cognitive distortions (Marshall & Laws, 2003; Ward & Siegert, 2002). In reviewing the major theories of child sexual abuse, certain common themes emerge, and suggest to researchers and clinicians that such elements are agreed by all to play a significant role in sexual aggression. Deficits in interpersonal competence represent an example of theoretical convergence in the analysis of sexual aggression, and child sexual abuse specifically. Although variously defined as social skills, social anxiety, or social self-esteem, social competency factors are consistently included in descriptions of individuals who sexually abuse children, and are believed to play a central role in the etiology and maintenance of sexually aggressive behaviour (Hudson & Ward, 2000). Indeed, the typical child molester is perceived as socially inept and isolated, with limited skills to engage and connect with adults. It is believed that as a result of such deficits and resultant interpersonal barriers, potential offenders attempt to meet needs for intimacy and connectedness in deviant ways. The following is a summary of major theories of child sexual abuse, and particular attention to the role of social functioning factors as one dimension of each framework. The components of social functioning are then examined in sexual offenders, and child

molesters specifically, in an attempt at integration based on a model of general aggression.

### *Theories of Child Sexual Abuse*

In their developmental conceptualization, Ward, Keenan, and Hudson (2000) acknowledge the social deficits characteristic of so many explanations of sexually abusive behaviour, and summarize this observation as "...a lack of awareness of others' beliefs, desires, perspectives, and needs" (p. 41). Four major theories of child sexual abuse include social competency deficits of the offender as crucial in the etiology and/or maintenance of child molestation. These theories are Finkelhor's (1984) precondition model of pedophilia, Marshall and Barbaree's (1990) integrated theory of the etiology of sexual offending, Hall and Hirschman's (1992) quadripartite model of sexual aggression against children, and Ward and Siegert's (2002) pathways model of child sexual abuse.

Finkelhor (1984) argues that four factors are implicated in explanations for child sexual abuse. These factors are characterized by the following claims: a) sexual contact with a child is emotionally satisfying (emotional congruence), b) men who offend are sexually aroused by a child (sexual arousal), c) men have sex with children because they are unable to meet their sexual needs in socially appropriate ways (blockage), and d) men become disinhibited and behave in ways contrary to their normal behaviour (disinhibition). Finkelhor suggests that the first three factors account for the development of sexual interest in children, and the fourth factor represents why this interest is manifested as sexual deviance. According to his theory, these four factors are grouped into four preconditions that must be satisfied in order for sexual abuse against a child to occur. The four prerequisite conditions are a) motivation to sexually abuse a child, b)

overcoming internal inhibitions, c) overcoming external impediments to sexually abuse, and d) overcoming the child's resistance. Finkelhor argues that these preconditions happen in a temporal sequence, such that each stage is necessary for subsequent stages. Based on this conceptualization, from a social functioning perspective, child sexual abuse occurs when the offender attempts to meet emotional needs, but appropriate outlets are unavailable to him because he lacks the interpersonal competency to meet these needs through appropriate means.

In two papers Marshall (Marshall & Barbaree, 1990; Marshall & Marshall, 2000) has proposed a theory of sexual offending reflecting the integration of research on how biological, social, and early childhood experiences interact to predispose some young men to be sexually aggressive and to employ inappropriate interaction styles. Specifically, the integrated theory of the etiology of sexual offending suggests that developmental adversity, such as inconsistent, abusive, and/or neglectful parenting, contributes to problematic interpersonal functioning (Marshall & Marshall, 2000; Starczyk & Marshall, 2003). It is suggested that these negative experiences produce attitudes, emotions, and beliefs about oneself and other people, which impede the development of skills required for the challenges of satisfying interpersonal relationships. As a young person, lack of socially effective skills increases the likelihood that relationships and attempted connections with partners will be unsuccessful. These experiences likely further entrench negative cognitive and emotional dispositions toward appropriate partners, and consideration of alternative sources, such as children. It is the combination of vulnerability factors and situational elements, such as victim access, intoxication, or strong negative affect that ultimately contribute to the commission of a

sexual offence. However, the distal factors represent the foundational or characterological deficits that seem to be necessary conditions for child sexual abuse to occur. Some of these negative attitudes, emotions and beliefs have been broadly defined as social intelligence, empathy, and cognitive distortions, which can be construed as aspects of social competence.

Hall and Hirschman (1991, 1992) applied their quadripartite model of sexual aggression against adults to the abuse of children. The four-factors for both victim groups, include deviant sexual interest, distorted cognitive processes, affective dyscontrol, and personality problems. While all factors contribute to the probability of offending, one factor is considered to be the primary motivator, which increases the valence of the other factors until the individual is pushed beyond their personal threshold, and sexually abuses a child. The final component identified by Hall and Hirschman, ( i.e. personality problems) refers to enduring interpersonal competency factors, such as social relatedness or empathy that may reflect the experience of adverse developmental experiences. These adverse experiences may increase the possibility for negative or antisocial attitudes (Baxter, Marshall, Barbaree, Davidson, & Malcolm, 1984; Hall & Proctor, 1987) and diminish the probability of adequate socialization (Lipton, McDonel, & McFall, 1987; Marshall & Barbaree, 1984; Overholser & Beck, 1986; Starczyk & Marshall, 2003; Stermac, & Quinsey, 1986). Similar to other theories of child sexual abuse, problematic socialization, and failure to acquire adequate social and emotional skills contribute to relational dissatisfaction and disturbance and the potential to meet social needs inappropriate ways.

In an attempt to integrate the overlapping and unique elements of these three main etiological theories, Ward and Siegert (2002) introduced the pathways model of child sexual abuse. This multifactorial theory suggests that child sexual abuse is the result of biological determinants, developmental adversity, cultural/social factors, and situational variables. These factors exert their influence on the mechanisms related to four problem clusters: emotional dysregulation, intimacy/social skills deficits, deviant sexual arousal, and cognitive distortions. Within these domains, difficulties may arise as a function of differences in severity, direction, and pervasiveness. The authors argue that all offenders display activation in each of these domains, and that all factors impact on the commission of a sexual crime. Combinations of all these factors determine the manifestation of sexual aggression, and each pathway is characterized by disturbance in a primary domain (e.g. intimacy/social skills deficits).

Considerable attention has been devoted to elucidating the social functioning of sexual offenders, and many clinicians and theorists have argued that deficits in this area play an etiological role in offending. Clearly, it is not the only causal route, but social competency represents a common dimension of theories on child sexual abuse, including social cognition, empathy, and social skills. To date no study has examined the role of social functioning deficits in child molesters, despite evidence that sexual offenders are less socially competent than nonsex offenders (see Hudson & Ward, 2000 for review). For example, research has found that rapists misconstrue women's social cues as hostile or seductive more frequently than nonsex offenders (Lipton, et al., 1987; Malamuth & Brown, 1994), and child molesters report higher levels of social anxiety and poorer social skills compared to a group of rapists and nonsex offenders (Marshall, Barbaree, &

Fernandez, 1995; Segal & Marshall, 1985). The present study examines the mechanisms of social functioning believed to be implicated in child sexual abuse by integrating aspects of social competence, including social intelligence, empathy, and cognitive distortions.

*Evidence for the Role of Social Functioning in Aggressive Behaviour*

In a recent seminal paper Björkvist, Österman, and Kaukiainen (2000) proposed that general aggression is the product of social intelligence in the absence of empathy. Based on an extensive body of literature examining physical, verbal, and indirect aggression in boys and girls, adult males, and adult females Kaukiainen and his colleagues (Kaukiainen, et al., 1999; Kaukiainen, Björkvist, Österman, & Lagerspetz, 1996) demonstrated that social intelligence is necessary for all types of aggressive behaviour, but that different levels of social intelligence and empathy are what predict the expression of that aggression. Social intelligence helps individuals decide which response set is likely to be most appropriate (i.e., have the maximum benefits and the least costs) for the emotional climate of the interaction. In times of conflict, social intelligence is an asset in that it provides the individual with the skills to achieve resolution and the option to do so peacefully. However, such astute analyses of others also allows the person to accurately select one or another form of aggression to terminate conflict and to achieve their goals without regard for the other person's needs (i.e. in the absence of empathy).

In their review of the relationship between social intelligence, empathy, and aggressive behaviour Björkvist et al. (2000) concluded that social intelligence is required for all conflict resolution (both aggressive and peaceful), but that empathy mitigates aggression. Specifically, social intelligence was found to be most strongly positively

related to the expression of indirect aggression, whereas empathy mitigated the expression of all forms of aggression. Björkvist et al. found that in children the relationships between social intelligence and the three forms of aggression (physical, verbal, and indirect) were all significantly increased when the influence of empathy was removed from the correlations. Thus empathy served to attenuate each form of aggression although the effects of both social intelligence and empathy were more marked in indirect forms of aggression. Not surprisingly empathy was strongly correlated with peaceful outcomes, whereas the weakest relationship between social intelligence and aggression was in the use of physical aggression, once empathy was accounted for. Socially intelligent people clearly sometimes resort to physical aggression, but when they do, it is either because they lack empathy, or more likely because they simply withhold or give up their capacity to be empathic toward the other person, perhaps as a result of the conflict.

In reviewing this model and its application to nonforensic populations, it seems that conceptualizing social functioning factors this way has helped to understand how different components affect one another to influence the expression of aggression. Furthermore, given similar factor deficits have been implicated in child molesters, it seemed this framework for understanding the relationship between variables also held promise for explaining and testing a model of sexual aggression in child molesters.

### *Social Intelligence and Behaviour*

Humans live in groups and this requires us to elicit the cooperation of others to achieve our goals. As Goody (1995) notes, this means humans must “be calculating beings; they must be able to calculate the consequences of their own behaviour, to calculate the likely behaviour of others, to calculate the balance of the advantage and loss

– and all this in the context where the evidence on which their calculations are based is ephemeral, ambiguous, and liable to change, not least as a consequence of their own action” (p. 2). What Goody describes is a constellation of skills associated with the concept of social intelligence. Historically, debate has ensued regarding the extent to which social intelligence is conceptually distinct from academic intelligence. Research has demonstrated that although correlated, social and academic intelligence are distinct features of wise functioning (Ford & Tisak, 1983; Marlowe, 1986; Campbell & McCord, 1996). This makes sense given that some academically bright individuals function quite poorly in their social lives, while some socially skilled people are poor at academic work. Using a variety of tools to measure social interests, social self-efficacy, empathy skills, interpersonal behavioural skills, and general intelligence, Marlowe (1986) concluded that social intelligence was multidimensional and included interpersonal skills, empathy skills, social attitudes, emotionality, and social ease/anxiety.

The basic components of social intelligence that consistently appear in the literature concern the idea that the basis for effective social functioning rests upon a specific form of intelligence that governs how people monitor their own behaviour and that of others, how they predict the consequences of their behaviour on others, as well as the responses of others, and how they modulate their own behaviour accordingly (Moulden & Marshall, 2002). Social intelligence, construed in this manner, carries no implications of moral behaviour. Intimidation or manipulation may work as effectively to achieve a person’s goals as would more kindly behaviour.

The literature on psychopaths, for example, suggests they can read other people’s responses sufficiently well to get what they want (Marshall & Barbaree, 1984).

Psychopaths modulate their behaviour such that they can either manipulate others to do what they want or intimidate them to get the cooperation they need (Marshall, & Serin, 1997). Being able to read others well, and modify responses accordingly, are two of the signature features of social intelligence, and psychopaths are clearly able to do both well, yet still hurt others. Even otherwise prosocial people who are highly socially intelligent will occasionally abuse the rights of others or even aggress against them (Felson, 2000). Thus, being socially intelligent is not synonymous with being prosocial. It seems more accurate to regard social intelligence as a neutral tool, which may be used for both prosocial and antisocial purposes. The demands of the situation, and aspects of one's personality, moral standards, and level of empathy, determine the goals for which a person will use his/her social intelligence.

#### *Social Intelligence and Sexual Aggression*

Social competence deficits have consistently been implicated in explanatory frameworks of sexual aggression, such that deficits in interpersonal functioning mediate the relationship between biological and early environmental vulnerability factors, and sexual aggression. Social intelligence, as defined by Goody (1995), is more consistent with a dynamic and context-based process of effective social interaction (see McFall, 1990) believed to be problematic for sexual offenders. However, to date virtually all research on this group has conceptualized social competence as social skills or social self-esteem rather than intelligence. Therefore, the literature reviewed below is presented to illustrate the general social deficits observed in sexual offenders.

Although the findings have been inconsistent, there is enough empirical evidence to suggest that sexual offenders, and child molesters in particular, have some manner of

social functioning deficits. Research based on observed heterosocial interactions between sexual offenders or controls, and a female confederate have determined child molesters to be less skillful in conversation, and to engage in less socially skilled behaviour compared to controls (Overholser & Beck, 1986; Stermac & Quinsey, 1986). Furthermore, in Overholser and Beck's research, child molesters exhibited fear responses in anticipation of negative social evaluation based on physiological assessment.

In a study by Marshall, Barbaree, and Fernandez (1995) comparing child molesters, rapists, and nonsex offenders, participants were compared on various facets of social competence, such as social self-esteem, social avoidance, and socially appropriate responses. Marshall et al. found child molesters were more socially anxious and more likely to respond in an under-assertive manner compared to rapists who were more likely to be aggressive. In response to videos depicting various social interactions child molesters considered an underassertive respondent to be most attractive and the most appropriate. Interestingly, although the child molesters rated the aggressive actor as least attractive, they rated him as more appropriate than the designated appropriate actor. Rapists judged the aggressive respondent to be most attractive and most appropriate. The nonsex offenders dramatically differentiated the appropriateness of the three actors in a manner consistent with accepted social norms. Clearly, sexual offenders experience more social anxiety, and respond to and interpret social interactions inappropriately. Although Marshall et al. did not assess the participants' thoughts or emotional responses to the actors in the videotaped vignettes, it seems that the groups made different assumptions about their behaviour, and experienced different emotional responses to the different styles. This finding is consistent with previous research by Marshall and his colleagues in

which child molesters, compared to nonsexual offenders, have scored lowest on indices of social skills and social anxiety (Marshall & Mazzucco, 1995; Segal & Marshall, 1985).

As Hudson and Ward (2000) argue in their review of social competency in sexual offending, many of the social deficit characteristics of sexual offenders are generally accepted in the literature. They are typically seen as socially inept and isolated, as having limited interpersonal skills, being sexually preoccupied, and hostile in interactions. However, what are not clear are the mechanisms by which these deficiencies operate to facilitate or cause sexual aggression.

#### *The Relationship Between Empathy and Social Intelligence*

Like social intelligence, empathy has been clearly implicated in the mediation of behaviour, both antisocial and prosocial (Feshbach, 1987; Moore, 1990). As such, empathy can serve to either inhibit the initiation of aggressive behaviour or curtail ongoing aggression (Miller & Eisenberg, 1988). Current definitions of empathy consider cognitive and emotional aspects, including both the ability to recognize another person's emotions as well as the observer's response to that emotion (Davis, 1983; Eisenberg, & Miller, 1987; Marshall, Hudson, Jones, & Fernandez, 1995). Marshall et al., (1995), for example, have formulated a model of empathy involving emotional recognition, perspective taking, the experience of a compassionate emotional response, and taking action to comfort the sufferer or reduce his/her suffering.

When considering the definition of social intelligence outlined in the previous section, the first two stages of Marshall et al.'s model of empathy closely match aspects of this description. Social intelligence requires the person to be adept at recognizing emotional responses in others, and to be able to consider another person's perspective. In

fact Vernon (1933), in his definition of social intelligence included insight into the states and traits of others as an important characteristic. Although until recently empathy and social intelligence have been studied separately, it is clear there is considerable overlap in the processes recognized as critical to both. The important question then becomes *is empathy part of social intelligence?* Although empathy relies on processes similar to those tapped by social intelligence, it also involves the initiation of a feeling state in the observer (either a feeling of compassion or a shared feeling of distress) and an active response by the observer to ameliorate the distress of the target person. In addition, social intelligence has other components (accurate anticipation of the other person's reaction) and also serves other purposes (achievement of socially mediated personal goals). For example, in Thorndike's (1920) definition, the ability to manage others is considered to be an important aspect of social intelligence. It is therefore, conceptually possible to distinguish these two constructs (social intelligence and empathy), and to evaluate their separate contributions to behaviour.

Although intuitively appealing as an explanation for the heinous behaviour of sexual offenders, there is little evidence that these men experience generalized empathy deficits. In fact they appear to have the capacity to experience empathy at levels comparable to nonsex offenders (Marshall, Jones, Hudson, & McDonald, 1993; Seto, 1992), even when considering victims of sexual abuse (Fernandez, Marshall, Lightbody, & O'Sullivan, 1999; Marshall, O'Sullivan, & Fernandez, 1996). A measure has been developed to distinguish generalized from specific empathy, and research with this tool suggests that sexual offenders have deficits in empathy primarily concerning their own victim(s) (Fernandez et al., 1999; Marshall et al, 1996). These findings hold true for both

rapists (Fernandez, & Marshall, 2003; Marshall & Moulden, 2001) and child molesters (Fernandez et al., 1999; Marshall et al., 1996).

Based on the model by Björkvist and his colleagues (2000), as well as on etiological theories of sexual aggression and observed group differences in empathy and social competence, it appears that when conceptualizing the role of social functioning in aggressive behaviour, aggression is the likely product of social intelligence in the absence of empathy. As Björkvist et al. put it “social intelligence minus empathy equals aggression”. However, such a model of general aggression does not explain the decision to use sex as the vehicle for violence. Therefore, how do we understand sexual aggression from a social functioning framework?

#### *Cognitive Distortions and Sexual Aggression*

Within the area of sexual aggression, it has been proposed that in addition to social intelligence and empathy, consideration of cognitive distortions (i.e. negative attitudes and beliefs and distorted sexual perceptions) must also be included in comprehensive etiological models (Hudson & Ward, 2000; Ward & Siegert, 2002). Hudson and Ward reviewed the literature on social competence and identified the ongoing debate concerning the relationship between cognitive distortions and deficiencies in the ability to empathize with victims. Abel and colleagues (Abel et al., 1989) described cognitive distortions as internal processes, including judgments and perceptions that are used to rationalize behaviour after an offence. They proposed that these distortions allow sexual offenders to maintain their self-esteem and avoid guilt and anxiety by justifying their sexual abuse post-offence (Abel et al., 1989). In the context of considering cognitive processes in sexually aggressive behaviour, a debate has ensued

about where cognitive distortions in sexual offenders come from and why. Some argue that such distortions are related to conscious post-offence processes employed to excuse or justify behaviour, thereby allowing the offender to continue to be abusive (Murphy, 1990). Others suggest that cognitive distortions arise prior to offending, as a way of overcoming internal inhibitions by eliminating empathy (Dietz, Tiemann-Blackwell, Daley, & Bentley, 1982; Finkelhor, 1984; Lisak & Ivan, 1995). In keeping with Finkelhor's (1984) explanation of cognitive distortions, some researchers have suggested that cognitive distortions are the product of underlying schemas (cognitive frameworks in long term memory), which actively modify incoming information so that it is consistent with their beliefs about themselves, others, and the world (Ward & Keenan, 1999). In reality, each perspective on the cognitive processes surrounding sexually abusive behaviour may be true.

Cognitive distortions of particular concern are those that are self-serving, or offense supportive. These include beliefs about people in general, women and children in particular, or specific victims. An example of a cognitive distortion might be "Sometimes, touching a child sexually is a way to show love and affection." (from the MOLEST scale, Bumby, 1996). Cognitive distortions about interpersonal interactions or specific victims serve to diminish the responsibility of the offender by presenting distorted impressions of offense related factors, victim-specific, or otherwise. Some research suggests that compared to nonsex offenders, rapists possess negative views about women, endorse violence against women, and accept rape myths (Bumby, 1996; Hall, Howard, & Boezio, 1986; Marolla, & Scully, 1986), and that these views are negatively correlated with their reported empathy for a specific victim (Marshall &

Moulden, 2001). Likewise, research suggests that child molesters endorse beliefs that children desire sexual contact with adults, are sexually responsive, and are obliged to do what adults want regardless of whether or not it upsets them (Bumby, 1996; Marshall, Anderson, & Fernandez, 1999; Hanson, Gizzarelli, & Scott, 1994).

Such attitudes and beliefs about children make them vulnerable to be victimized because they redefine abusive behaviour as loving, caring, or educational. Furthermore, these cognitive structures dismiss or minimize the potential for harm as a result of the offender's actions, and undermine the victim as being worthy of protection and self-determination. Such beliefs are in direct contrast to authentic perspective taking, and acknowledgement of the negative impact of sexual abuse. It is challenging, if not impossible, to hold both conceptualizations of child sexual abuse simultaneously. Therefore, distorted social interpretations about victims, and their responses and characteristics may facilitate the offending process by rationalizing abuse and inhibiting empathic responses.

#### *Social Intelligence, Empathy and Cognitive Distortions in Sexual Aggression*

Cognitive distortions have been linked to empathy deficits (Marshall, Hamilton, & Fernandez, 1998), and, in fact, it has been suggested that apparent deficits in victim empathy are no more than specific types of cognitive distortions (Marshall, et al., 1999). Marshall et al. (1999) have proposed that the empathy deficits toward specific victims observed in sexual offenders result from various rationalizations and justifications used to either disregard the victim's feelings or enable them to ignore the victim's distress.

Consistently, these three concepts (i.e. social intelligence, victim empathy, and cognitive distortions) appear in the sexual offender literature (Hudson & Ward, 2000;

Marshall, et al., 1999), however almost always independently. Although, the expression of these constructs is different in sexual offenders compared to nonsex offenders, and there exists good theoretical support for relationships between these variables, the ways in which they are related to each other and to engagement in sexually aggressive behaviour is unknown. Despite a number of integrated theories about child sexual abuse, many have not been empirically tested. One of the next steps in sexual offender research should focus on integrating how causal mechanisms are related to each other and predictive of sexual aggression. Given that social functioning is a common theme in so many conceptualizations of child sexual abuse, examination of this dimension, including social intelligence, victim empathy, and offense or victim specific cognitive distortions, may elucidate this aspect of the etiology of sexual offending against children. This dissertation represents the first attempt to evaluate how these factors are related both to each other and to sexually offensive behaviour.

It is proposed that in addition to biological/distal factors, sexual aggression is in part a function of deficits or problems with social functioning. Based on Björkvist et al.'s (2000) model for general aggression it seems reasonable that a similar process would apply to sexual offending. However, some additional mechanism or process must be involved in the decision to use sex as the way in which to aggress. Cognitive distortions are proposed as this component given their role in empathy inhibition, and the influence that social experiences have on the formation and strengthening of thought processes and cognitive bias. Such deficiencies in social competence are not believed to be the sole cause of sexual assaults, however they are clearly part of multidimensional theories of

child sexual abuse (Finkelhor, 1984; Hall & Hirschman, 1992; Marshall & Barbaree, 1990).

### *Present Study*

The relationship between these constructs (i.e. social intelligence, empathy, and cognitive distortions) was examined in both sexual offenders and nonsexual offenders. The sexual offender group consisted of incarcerated sexual offenders who had committed a *hands-on* offense against a child. A comparison group of nonsex offenders consisted of men who were convicted and incarcerated for a nonsexual, physically violent crime, as well as non-offenders, recruited from the community.

The purpose of the present correlational study was to attempt to integrate variables believed to individually contribute to our understanding of what causes sexual aggression. To this end the study design and analysis examined the nature of relationships between social intelligence, general/victim empathy, and cognitive distortions in predicting sexual and general aggression in child molesters. Furthermore, a theoretically derived sequence between variables was proposed and tested.

### *Hypotheses 1: Group Differences*

The first hypotheses were aimed at differentiating between child molesters and non child molesters on the variables of interest: social intelligence, general and victim empathy, and cognitive distortions. Based on previous literature, it was expected that child molesters would differ significantly from non child molesters on measures of social intelligence, victim empathy, and cognitive distortions. More specifically, child molesters were expected to be less socially intelligent than non child molesters, report deficits in

victim empathy compared to non child molesters, and endorse more cognitive distortions about children and sexual behaviour than non child molesters.

*Hypothesis 2: Predicting Aggression in Child Molesters*

The second hypotheses were concerned with the ability of social competency variables to collectively predict aggression in child molesters. It was proposed that social intelligence, victim empathy, and cognitive distortions would predict sexual aggression in child molesters.

In order to assess the contribution of cognitive distortions to the existing model of general aggression, it was predicted that cognitive distortions would significantly account for variance over and above that of social intelligence and victim empathy in its association with aggression in child molesters.

*Hypothesis 3: The Route to Aggression in Child Molesters*

The etiological theories reviewed above suggest that there is a developmental sequence to the manifestation of disturbances in social functioning. To summarize, these models theorize that problematic early childhood experiences interfere with healthy relationships, and thus the development of social intelligence. Poor social intelligence, in turn, impedes efforts toward intimate relationships with others. These negative interactions with intimate others are believed to contribute to negative attitudes and beliefs about others and to result in unsuccessful relationships. The consequent negative attitudes and beliefs become further ingrained with each unsatisfying interaction, resulting in viewing a particular group (e.g. women or children) in a negative way. Holding such negative attitudes and beliefs has been proposed to specifically inhibit empathic responses toward the associated group.

Based on these propositions, a specific sequence or order was hypothesized and tested. This model accounts for the relationships between variables and between each variable and aggression. Specifically, it was hypothesized that social intelligence would be negatively associated with cognitive distortions, such that those individuals low in social intelligence will be more likely to endorse more cognitive distortions. Cognitive distortions would be negatively associated to victim empathy, where individuals reporting more cognitive distortions would also be less empathic towards their victim. Lastly, victim empathy would be negatively associated with sexual aggression. Individuals reporting poor victim empathy will be more likely to be sexually aggressive. This route (see Figure 1) is proposed to best explain the relationship between social functioning and sexual aggression in child molesters.

## Method

### *Participants*

Participants included 52 intrafamilial child molesters (ICM), 70 extra familial child molesters (ECM), 31 nonsexual offenders (NSO), and 30 community nonoffenders (CNO). All offender participants were inmates in federal penitentiaries in Ontario. Intrafamilial child molesters consisted of men who committed a sexual offense against a biological or step-child exclusively. Extra familial child molesters included men who had been convicted of a sexual offence against an unrelated child, and included men who had offended against their own children in addition to extra familial victims. All offenders were classified as child molesters if they had at least one index (i.e. current offence) conviction for a sexual offence of a child 16 years old or younger. The present sample of child molesters represent all eligible child molesters sentenced to penitentiaries in the Ontario Region of Correctional Service of Canada between September 2006 and September 2007.

Offenders were classified as nonsexual offenders if they a) had no current or prior convictions or charges for a sexual offence, b) denied ever committing an act of sexual aggression, and c) were currently convicted of a violent crime. A group of community nonoffenders were also included if they a) denied a history of sexual and/or violent convictions, and b) denied ever committing an act of sexual aggression.

Participation was voluntary and informed consent was given (Appendices A and B). Certification of ethical approval from the Social Sciences and Humanities Research Ethics Board of the University of Ottawa (Appendix C) and permission from the

Correctional Service of Canada (CSC) (Appendix D) to conduct the present research were granted.

A total of 234 adult males were recruited to participate in the present study. Two community participants withdrew from the study due to the sensitive nature of the questionnaire items. These individuals were debriefed and paid for their time. Fifteen community participants and three nonsexual offenders were excluded based on endorsement of sexually aggressive behaviours or because they admitted that they have been concerned about their sexual behaviour and/or fantasy. Thirty-one incarcerated participants refused to participate either directly after learning about the study as part of the informed consent process or part way through completing the questionnaire package. Those individuals who completed a portion of the package were debriefed and asked not to discuss the nature of the study with other inmates. This resulted in a sample of 183 participants.

Although information was not collected for the community participants who chose not to complete the study, some demographic and criminal history data were available for the incarcerated refusers. The incarcerated refusers were compared to the other incarcerated participants and were found to be no different with respect to age,  $F(1,182) = 0.11, p = .92$ , employment,  $\chi^2(4) = 3.12, p = .54$ , sentence length,  $F(1,182) = 1.14, p = .29$ , and number of prior convictions for sexual offences,  $F(1, 182) = .31, p = .58$ . These groups did differ on level of education,  $F(1, 182) = .653, p = .011$ , such that nonrefusers mean level of education was greater. However, the modes for both groups were the same, and indicated that they had completed primary school. Refusers and nonrefusers also differed on marital status,  $\chi^2(5) = 18.31, p = .003$ . Refusers were more

likely to be single and nonrefusers were more likely to be married or in a common law union. Finally, the groups were significantly different with respect to the number of prior convictions for both violent,  $F(1, 182) = 5.20, p = .02$ , and general offences,  $F(1, 182) = 23.08, p < .001$ , where refusers had the greater number of convictions in both cases.

Offenders were recruited from Canadian federal institutions. Child molesters were selected through institutional treatment program waiting lists. Program waiting lists are a viable recruitment option in Canada because all men convicted of a sexual offense or sex-related crime and sentenced to a federal institution are referred and encouraged, by way of parole eligibility, to participate in treatment programs. Therefore, virtually all non-treated sexual offenders incarcerated in a particular institution at a given time appeared on a treatment program waiting list and were approached to participate in the present study.

Sexual offender treatment programs, such as those delivered in the federal Canadian prison system, have been demonstrated to be effective in addressing factors related to sexual offending, such as empathy and cognitive distortions (for a review see Marshall, Marshall, Serran, & Fernandez, 2006). Therefore, in order to evaluate these constructs as they relate to the commission of sexual offenses, only men who have received no prior treatment in a federal institution were included in the study. Based on review of participants' file information, participation in previous sex offender treatment could not be reliably determined. Therefore, it was assumed that some participants may have participated in treatment in the community (e.g. while awaiting trial) or in a provincial institution. Lack of standardized programs outside of the federal system make

it difficult to assess the quality of such programs, and thus their comparability to one another and federal treatment programs.

Nonsexual offenders were randomly selected and screened from institutional population lists. A group of community nonoffenders were recruited through an advertisement placed in the local newspaper for the Kingston and Ottawa areas (Appendix E). The posting requested adult male participants for a research study and offered to pay \$10.00 to each participant for their time. Previous research has demonstrated that this procedure for recruitment produces a sample of males who closely resemble incarcerated men on a variety of demographic characteristics (e.g. education, income, age; Marshall & Moulden, 2001).

#### *Measures and Materials*

Where available, data were collected on demographic information including age, education, employment, and marital status based on file information and a demographic information form (Appendix F). Education was defined as the highest level of formal education the respondent had completed: 1) none, 2) primary, 3) high school, 4) college diploma or specialized training, and 5) university degree or above. Data were also collected on whether or not incarcerated participants were employed at the time of the offence. Marital status was coded based on the following categories: 1) never married or involved in a significant relationship (i.e. living together for six months), 2) single, 3) common-law or legally married, 4) separated or divorced, and 5) widowed. Additionally, community and incarcerated nonsexual offenders completed a screening form querying self-reported criminal and sexually aggressive behaviour (Appendix G).

*Response Bias*

In the use of self-report data there may be a tendency for participants to try to present themselves in a positive light to the examiner, particularly in forensic populations (Nugent & Kroner, 1996). Therefore, in order to assess to what degree participants responded in a socially desirable manner, they completed the Paulhus Deception Scales (PDS; Paulhus, 1998, see Appendix H). The PDS is designed to assess socially desirable responding both as a response set (a temporary tendency caused by situational demands) and a response style (a trait-like tendency apparent whenever the individual gives self-reports; Paulhus). This questionnaire consists of 40 items, 20 of which are negatively keyed. The PDS has two subscales, Impression Management (IM – the tendency to give inflated self-descriptions to an audience) and Self-Deceptive Enhancement (SDE – the tendency to give, honest but inflated self-descriptions). Participants were required to rate themselves according to the extent to which they agree with each statement, where one represents *not true*, and five represents *very true*. The types of statements participants are required to rate include, “I never regret my decisions” and “I sometimes drive faster than the speed limit”. Paulhus reports psychometric information for prison entrants. Internal consistency (Cronbach’s alpha) of the IM, SDE, and PDS (total) are .71, .84, and .86, respectively. The PDS also has good convergent validity, correlating highly with other measures of deception, such as the Marlowe-Crowne Social Desirability Scale ( $r = .84$ ; Paulhus). In the present study the internal consistency was calculated for each group. Chronbach’s coefficient alpha for the IM, SDE, and PDS (total) were as follows: intrafamilial child molesters, .77, .81, .83; extra familial child molesters, .86, .75, .86;

nonsexual offenders, .72, .80, .82, and community nonoffenders, .60, .76, .73, respectively.

### *Social Intelligence*

The Social Intelligence Measure-Adult Version (SIM-AV, Moulden & Marshall, 2001, Appendix I) is a measure designed to represent skills or tendencies believed to be characteristic of social intelligence. This measure was originally designed as a peer-estimation tool for children (Kaukiainen, Björkqvist, Österman, Lagerspetz, & Forsblom, 1995a). Self-report instruments are often vulnerable to the tendency to present oneself in a positive light, and therefore threaten the validity of the responses. To avoid these problems Björkqvist et al. (2000) used peer-estimated measures in which participants were asked to rate the aggression, empathy, and social intelligence of other children with whom they went to school. In the present study, Björkqvist et al.'s model of aggression was applied to adults. Therefore, two challenges existed. The first was to adapt the current questionnaire items, designed for children, to reflect adult behavior and in adult language. The second was to redesign the questionnaires in a self-report format. Given the population of interest is incarcerated, many of these men do not know one another well, nor are they permitted to engage in direct aggression, therefore these estimations would not be reliable.

The adapted measure consists of 10 items, which describe ways in which people interact with each other. Respondents were asked to rate on a five-point scale, where one represents *never* and five represents *very often*, how often the experiences listed are true for them. Again, the original version is designed for children and as a peer-estimation, therefore the items were slightly altered in language to reflect self-report. For example,

Item 3, which originally read "Accommodates easily to new people and new situations" was altered to read "I find it easy to get along with new people and in new situations".

A pilot study was undertaken in 2001 to evaluate the psychometric properties of the adapted versions. A community sample was recruited and previous research has found that men from this population closely match the incarcerated men on indices of age, education, and SES (Marshall, & Moulden, 2001). The SIM-AV demonstrated good internal consistency  $\alpha = .79$ , and moderate test-retest reliability  $r = .50$  over a two-week period (Moulden, & Marshall, 2001). The internal consistency of the SIM-AV with the present sample was good. Specifically, Chronbach's coefficient alpha for the ICM, ECM, NSO, and CNO were .73, .82, .84, and .73, respectively.

The Factor Tests of Social Intelligence (FTSI; O'Sullivan & Guilford, 1976; Appendix J) is comprised of four tests derived from Guilford's 33 original tests of social intelligence. The first sub-test assesses the ability to predict what will happen next in a sequence of behaviours. The task is for the participant to choose one of three alternative cartoons, which depict what is most likely to follow in a given interpersonal situation. The second sub-test measures the ability to assess interpersonal relationships and understanding of the meaning of verbal and behavioural cues in different contexts. Participants will match one of three pairs of persons between whom a given statement would best apply, such as "Would you like to go out for a coffee?" The third sub-test measures the ability to perceive the state or disposition associated with a behaviour. The task is to detect similarity in behavioural information in different expressional modes, such as sadness. This is tested by identifying which one of four cards does not portray a particular emotion, based on facial expression, hand gestures, or body posture. Finally,

the fourth sub-test measures the ability to perceive feelings and intentions of others. The task is to detect which image best completes an interpersonal sequence. This measure is reported to have high internal consistency ( $\alpha = .88$ ) and test-retest reliability ( $\alpha = .84$ ) and demonstrates convergent validity with other measures of empathy and interpersonal skills (O'Sullivan & Guilford, 1976; Riggio, Messamer, & Throckmorton, 1991). Chronbach's coefficient alphas in the present study were .75, .83, .72, and .81, for ICM, ECM, NSO, and CNO groups respectively.

### *Cognitive Distortions*

Participants completed the MOLEST scale (MS; Bumby, 1996; Appendix K), which consists of 38 items designed to assess negative and problematic beliefs and attitudes in child molesters. Respondents were asked to indicate to what extent they agree with statements about sexual interactions with children. Responses are based on a 4-point scale where 1 represents *strongly disagree* and 4 represents *strongly agree*. Examples of items on the MS are "A lot of times sexual assaults on children aren't planned...they just happen", and " Sometimes touching a child sexually is a way to show love and affection". In validation studies the measure has been found to have excellent internal consistency ( $\alpha = .97$ ) and test-retest reliability ( $r = .84$ ; Bumby, 1996). Further, it is correlated with other measures of distorted attitudes about sex with children and the number of years offending (Bumby, 1996). Although self-report measures of negative attitudes have been criticized for being transparent (Tierney & McCabe, 2001), the author of the MS has claimed it is unrelated to social desirability (Bumby, 1996). The MS significantly discriminates rapists from child molesters, and from other nonsex offenders (Bumby, 1996). Internal consistency for the MS in the present study was also very good.

Chronbach's coefficient alphas were .94, .96, .92, and .95 for ICM, ECM, NSO, and CNO, respectively.

### *General and Victim Empathy*

The Child Molester Empathy Measure (CMEM; Fernandez, Marshall, Lightbody, & O'Sullivan, 1999, Appendix L) has three scenarios that describe children who were victims of (1) a vehicle accident that has left them permanently disfigured; (2) a sexual assault by an unknown assailant; or (3) the crime perpetrated by the respondent himself.

Respondents were asked to assess the cognitive and affective aspects of empathy. For each vignette, participants were asked to "think about..." a particular victim and then provide their recognition of the victim's feelings and problems as a result of being victimized based on a 30-item subscale. A second 20-item subscale assessed the participant's own feelings toward the victim. Subscale responses are based on an 11-point scale, where zero represents *not at all* and 10 represents *very much*. Internal reliability was reportedly high for all three scenarios (alphas = .82; .87; .88), and test-retest reliability over a two-week period revealed a satisfactory correlation ( $r = .83$ ) (Fernandez, et al., 1999). Sexual offenders were compared to nonsexual offenders, and the CMEM discriminated between the two groups, showing that sexual offenders show less empathy than nonsexual offender to victims of sexual abuse, and less empathy toward their own victim of sexual abuse (Fernandez, et al., 1999). In the present study the internal consistency for the ICM group was .65, .49, .58, and .77 for scenario 1, scenario 2, scenario 3, and the CMEM full scale, respectively. For the ECM group Chronbach's coefficient alphas were .67, .73, .71, and .77, again for scenario 1, scenario 2, scenario 3, and the full scale, respectively. Internal consistency for the NSOs was .61, .61, .56, and

.22 for scenario 1, 2, 3, and the full scale respectively. Finally, the CNO group provided data for scenarios 1 and 2 only because they have not committed any offence.

Chronbach's alphas were .11, .45, and .42, for scenario 1, scenario 2, and full scale (based on scenarios 1 and 2 only), respectively. The internal consistency for the CMEM in the present study was significantly lower than previous reports.

The Empathy Measure-Adult Version (EM-AV, Moulden & Marshall, 2001; Appendix M) was adapted from a peer estimation measure assessing empathy in children following the same procedure described above (Kaukiainen, Björkvist, Österman, Lagerspetz, & Forsblom, 1995b). The EM-AV consists of 8 items, which describe ways people demonstrate empathy. Respondents are asked to rate on a five-point scale, where one represents *never* and five represents *very often*, how often they engage in the behaviors or feelings listed. Given its original form and target population, in the adapted version the language was altered to reflect adult, self-report responses. Item one originally read "Helps friends in trouble", but was altered to read " I typically help friends when they are in distress". Following the same procedures as for the SIM-AV, the psychometric properties of the EM-AV were evaluated and revealed good internal consistency,  $\alpha = .84$ , and test-retest,  $r = .82$  (Moulden & Marshall, 2001). Chronbach's coefficient alphas in the present study were as follows: .83, .89, .94, and .67, for ICM, ECM, NSO, and CNO groups respectively.

The Empathy Skills Questionnaire (ESQ; Preston & Murphy, 1996, Appendix N) was designed as a structured interview in which respondents are asked about how they would respond to various types of situations. Unlike other self-report measures, the ESQ requires respondents to generate their response, rather than rating themselves on

predetermined statements. Previous research (Serin, Gobeil, & Preston, 2006) has reported good internal consistency ( $\alpha = .82, .88, \text{ and } .82$ ) for the three scales of the ESQ (perspective taking, affect, and coping with distress). This same study also collected data on interrater reliability, which was fair for the three scales,  $r = .64, .75, .64$ . In the present study, respondents were requested to read the items and document their responses themselves rather than provide replies to interview questions. Due to this procedural modification of the measure, it is more accurate to identify it as a self-report administration. Therefore, throughout this document, the ESQ will be referred to as The Empathy Skills Questionnaire-Self-Report (ESQ-SR). The ESQ-SR's internal consistency was also good in the present study. Chronbach's coefficient alphas were  $.84, .94, .84, \text{ and } .83$  for ICM, ECM, NSO, and CNO, respectively. Interrater reliability was calculated for the ESQ-SR by the researcher and a graduate student in clinical psychology. The interrater reliability for the present study was  $r = .73$ .

### *Aggression*

To measure aggressive tendencies, participants completed the Aggression Questionnaire (AQ; Buss & Perry, 1992; Appendix O). This measure has been widely used to evaluate aggression in a variety of populations. AQ is a self-rating scale with 29 items. Items are rated on a five-point scale where one represents *extremely uncharacteristic of me* and five represents *extremely characteristic of me*. There are four subscales measuring Anger (A), Physical Aggression (PA), Verbal Aggression (VA), and Hostility (H) and factor analysis confirmed these four factors (Buss, & Perry, 1992; Harris, 1995). However, research with offender populations has suggested that only two factors exist. One factor combines physical aggression and anger (P), and the other

combines verbal aggression and hostility (V) (Williams, Boyd, Cascardi, & Poythress, 1996). This two factor model demonstrated good convergent validity with Novaco's Anger Scale (Williams, et al.). An example of items on the AQ include "If I have to resort to violence to protect my rights, I will". Test-retest reliability was tested over a 9 week period, and Buss and Perry reported correlations for each factor/subscale: PA, .80; VA, .76; A, .72; and H, .72. The test-retest correlation for the total score was .80 (Buss & Perry, 1992). Internal consistency was reportedly high for all subscales and total scores respectively (alphas = PA.85; VA, .72; A, .83; H, .77, and Total, .89; Buss & Perry, 1992). The AQ has been demonstrated to have good convergent validity, with high correlations with the Aggression Inventory (Harris), and discriminating between those men more or less likely to have engaged in a physical fight within the past 5 years (Archer, Holloway, & McLoughlin, 1995). Psychometrics for the AQ in the present study were based on the two factor model. The AQ displayed good internal consistency with Chronbach's alphas for P, V, and total scores of .90, .86, and .88 for ICM, .92, .99, and .92 for ECM, .90, .86, and .91 for NSO, and .90, .87, and .91 for CNO.

The Direct and Indirect Aggression Scales-Adult Version (DAIS-AV, Moulden & Marshall, 2001; Appendix P) was adapted from a peer-estimated measure designed to assess aggressive behaviour in children (Björkvist, Lagerspetz, & Österman, 1992). The current measure consists of 24 items describing expressions of aggression. Respondents are asked to rate on a five-point scale, where one represents *never* and five represents *very often*, how often they engage in the behaviors when they are feeling upset or angry with someone. As the original version of the questionnaire was designed for children and as a peer-estimation, the items were slightly altered in language, to reflect self-report

responses more typical of adult behaviors. For example, item 20, which originally read "Write(s) small notes where the other one is criticized", was altered to read, "Criticize that person behind their back". Following the same procedure for the SIM-AV, and EM-AV, the psychometric properties of the DAIS-AV were evaluated. Internal consistency for the measure was excellent,  $\alpha = .91$ , and test-retest reliability was fair,  $r = .75$  (Moulden & Marshall, 2001). Although factor analysis has not been performed on this measure, review of the items suggests that two factors clearly exist, namely a factor of direct aggression, and a factor of indirect aggression. In the present study internal consistency was examined for the total score, and investigated in two unofficial factors. Chronbach's coefficient alpha for the direct items, indirect items, and total score are as follows: ICM, .86, .88, and .93; ECM, .92, .92, and .95; NSO, .91, .82, and .91; and CNO, .89, .91 and .94.

The Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR; Hanson, 1997; Appendix Q) was scored for the current study from the information collected at the time of assessment and from criminal record data. The RRASOR consists of four items: (1) prior sexual offences, (2) age at release, (3) victim gender, and (4) relationship to victim. RRASOR scores can range from 0 to 6, with higher scores reflecting greater risk for sexual recidivism. Hanson (1997) selected these four items from a larger pool of variables through multivariate statistical procedures. In their meta-analysis, Hanson and Morton-Bourgon (2004) found a medium association between the RRASOR and sexual recidivism (mean  $d = .59$ ) and a small to medium association with violent (including sexual) recidivism (mean  $d = .34$ ). In addition, good inter-rater reliability has been found with the RRASOR (Barbaree, Seto, Langton, & Peacock, 2001).

### *Procedures*

In order to ensure confidentiality, signed consent forms were removed from completed questionnaire packages. Questionnaire packages were then coded and placed in a separate envelope. Incarcerated participants were not asked to identify themselves anywhere but on the consent forms. Community participation was anonymous. As it is not known whether or not order effects exist for this series of questionnaires, the presentation of measures was controlled for by random order counterbalancing.

#### *Incarcerated Participants*

Administrative and clinical correctional staff affiliated with the Psychology department of each institution were asked to assist with participant recruitment (Appendix R). Prison files, criminal records, and police reports were examined to classify the incarcerated sample into one of three groups (i.e. Intrafamilial child molesters, Extra familial child molesters, or Nonsexual offenders). Eligible inmates were approached by correctional staff about the study (Appendix S). If participants expressed interest in the study, groups of approximately 10 participants at a time were requested to meet with the researcher and asked to participate in the study following the recruitment script (Appendix T). Groups of sexual and nonsexual offenders were invited to participate separately. All meetings took place in secure public domains of the institution (e.g. treatment program rooms or classrooms).

If participants were interested in the study they were asked to sign the consent form (Appendix B, institutional consent form). Participants were then provided with questionnaire packages to complete, including the sexual behaviours screening form for incarcerated nonsexual offenders (Appendix G). Completion times varied from

approximately one hour to two hours. Once completed, participants were debriefed about the study and the closing statement was read (Appendix U). The debriefing form (Appendix V, institutional debriefing form) provided contact information should participants require more information about the study as well as counseling contacts within the institution should the study evoke any negative feelings.

### *Community Participants*

Community participants responded to a recruitment advertisement (Appendix E) in local newspapers by calling the author. The purpose of the study was described on the telephone (Appendix W) and again when respondents attended the clinic/office to participate in the study. If interested, an appointment was scheduled. Groups of approximately ten participants were invited to attend either Rockwood Psychological Services in Kingston or the University of Ottawa in Ottawa. They were provided with the information form (Appendix A, community information form) upon arrival, and asked to complete the questionnaire package, including screening and demographic forms. Once they completed the questionnaire packages, participants were debriefed, and paid \$10.00 for their time. The closing statement (Appendix U) was read to participants and debriefing forms (Appendix X, community debriefing form) included contact numbers for more information about the study, as well as for counseling services should the study elicit any negative feelings.

### *Scoring*

The PDS requires participants to rate themselves for each item on a scale of 1 to 5. The questionnaire has 20 negatively keyed items, which are reversed scored. One point is provided for extreme responses on each item so as to ensure that high scores indicate

exaggeration rather than accurate self-descriptions (Paulhus, 1998). No points are allotted for non-extreme responses. Two subscales, Impression management and Self-deceptive enhancement are scored separately, by adding together the first 20 items for the SDE scale, and the last 20 items for the IM scale. The sum of the two subscales represents the overall score. Scores range from 0-40, where higher scores represent increased socially desirable responding.

The SIM-AV is scored by summing the ten items, for a maximum total score of 50. Higher scores are representative of greater social intelligence.

The FTSI is scored by summing negatively and positively keyed items on each subtest. Each subtest is scored independently, and summed to produce a full-scale score of social intelligence. Higher scores are indicative of higher social intelligence.

The MS consists of 36 items. Scoring requires summing items for a maximum total of 144. Higher scores indicate greater distorted beliefs about sexual contact with children.

Higher scores on CMEM represent higher levels of empathy. Each scenario is scored independently on two subscales. Both subscales require participants to respond on a scale of 0 to 10. The first subscale, designed to reflect the participant's recognition of the victim's feelings, has 25 positively keyed and 5 negatively keyed items. The second subscale assesses the participant's own feelings toward the victim. This scale has 14 positively keyed items and 6 negatively keyed items. Negatively keyed items are reversed scored. All items are then summed for each subscale. The two subscales are then summed to produce an empathy rating indicative of the participant's feelings of empathy for each

victim, with the maximum possible score for each scenario of 500 (i.e., 50 items by maximum score of 10). Each vignette is represented by an independent empathy score.

The EM-AV is scored by summing the scores for the eight items to a maximum score of 40. Higher scores are indicative of higher levels of empathy.

Scoring of the ESQ-SR required the participants' responses to be evaluated based on a three-point scale (0-2) where a higher score represented the more empathic or effective response. Separate scores for the subscales, perspective taking, affect, and coping with distress were summed to equal a total empathy score.

To score the AQ, the two negatively keyed items are reversed scored. Each subscale is summed individually to represent a score for each factor, physical aggression, verbal aggression, anger, and hostility. The subscale scores are then summed to produce a total maximum score of 145. Higher scores indicate greater endorsement of aggressive tendencies and attributions.

The DIAS-AV consists of 24 items, which are summed to produce a maximum total score of 120. Higher scores are representative of higher levels of aggressive behaviour.

Scoring of the RRASOR involves categorically coding information for each of the four items. Prior sexual offences are scored as follows: None = 0, 1 conviction/ 1-2 charges = 1, 2-3 convictions/ 3-5 charges = 2, and 4 or more convictions/ 6 or more charges = 3. If the offender is more than 25 years old at the assessment, the age item is scored 0 and if younger than 25 years, the item is scored 1. For the victim gender item, a score of 0 is coded for female victims, and a score of 1 is coded for male victims. Finally, if the offender is related to the victim the item is scored 0, and if the offender is unrelated

to the victim the item is scored 1. Item scores are summed to a maximum score of 6, and each score is associated with increasing levels of risk.

### Data Screening and Treatment

All data analyses were performed with version 13 of the Statistical Package for the Social Sciences (SPSS) for Windows. The significance for all a priori analyses was evaluated at  $p < .05$ . Planned comparisons were tested using Bonferroni t-tests to correct for familywise error.

The researcher was present during all data collection, and screened completed questionnaires for missed pages or questions prior to debriefing the participant. The proportion and pattern of missing data was evaluated using SPSS MVA (Missing Value Analysis: SPSS Inc., 1997). This program is specifically designed to highlight patterns of missing values and to replace them in the data set. Only variables with at least 5% of data missing are evaluated in this analysis. The reason is that if only a few data points in a relatively large data set are missing, the problems are less serious and any procedure for treating missing data yields similar results (Tabachnick & Fidell, 2001). SPSS MVA evaluates whether or not missing data in one variable are related to any of the other variables, and identifies patterns in the data. There was no pattern to the data missing,  $\text{MCAR} = 88.81, p = .89$ . If the MCAR statistic is not significant this means that the data are missing in a completely random pattern.

For the purpose of preserving cases, and because little data was missing and in a random pattern, regression analysis was used to estimate missing values. Cases with complete data generated the regression equation and the equation was then used to predict missing values for incomplete cases (Tabachnick & Fidell, 2001).

*Univariate*

Standardized scores were computed to identify those values outside three standard deviations from the mean. These values were then replaced with the next highest or lowest value within three standard deviations. Normality was examined for each group and problems were identified for the DIAS-AV. A log (10) transformation was performed to correct positive skewness ( $z = 6.25$ ) and slight platykurtosis ( $z = 4.54$ ). Analyses were performed on both the modified and unmodified data. The results were comparable with respect to significance. Therefore, only the results from the unmodified data were reported.

None of the variables were multicollinear (see Tables 3-6), despite the selection of multiple measures for the same construct. In order to reduce the regression load, two options are available for reducing the number of variables. The variables can be combined in the form of composite scores, which reflects results on each measure. The other option is to only use the most psychometrically sound measure. Given that some measures of seemingly similar constructs were not significantly correlated the calculation of a composite score is inappropriate. Therefore, the most psychometrically sound measure was used to represent a given construct in regression analyses.

*Multivariate*

Multivariate outliers were identified using Mahalanobis distance, which is the distance of a case from the centroid of the remaining cases, where the centroid is the point created by the intersection of the means of all the variables (Tabachnick & Fidell, 2001). The measurement of this distance is used to detect multivariate outliers. If univariate and multivariate outliers are related, transformations of the univariate outliers

can usually reduce the impact of multivariate outliers. However, based on the first regression eleven multivariate outliers were identified and deleted. All multivariate analyses were performed on the dataset with multivariate outliers removed.

## Results

The purpose of study 1 was to examine if differences exist between child molesters and non child molesters on measures of social intelligence, victim empathy, cognitive distortions, and aggression.

### *Participant Characteristics*

Data were collected for four comparison groups, including ICM, ECM, NSO, and CNO. Descriptive characteristics for these groups are summarized in Table 1. A series of ANOVAs and Chi square analyses were performed to evaluate group differences on demographic and offense information, including age, education, employment, marital status, criminal history, sentence length, and victim characteristics. These analyses were evaluated at the  $p < .05$  level because it is desirable, in this case, to be more liberal in detecting potential differences, which would otherwise distort the data.

With respect to age, the NSO group was significantly younger than either group of child molesters, but did not differ from the CNO group. No other age differences between the groups were evident. As illustrated in the table, there was a significant overall effect for education, such that the CNO group had significantly higher levels of education compared to all of the incarcerated participants. Although data were not available for employment status for the CNO group, comparison of the incarcerated groups revealed a significant difference. Specifically, NSO were less likely to be employed at the time of the offence compared to both groups of child molesters, who were no different from one another. The distribution of marital status revealed that no participant was reflected in either the separated/divorced or widowed categories. Therefore, this variable was dichotomized to reflect whether participants were in a legal

union (i.e. common-law or married) or not. Table 1 displays the significant difference between groups. Specifically, ICM were more likely to be married than both the ECM and NSO groups.

Criminal history was examined for the incarcerated participants. Although NSO had significantly fewer sexual offence charges and convictions, and more violent and general charges and convictions, these between group differences were by design. Despite criminal history differences, the index sentence length did not differ between the three offender groups.

Characteristics of the victim were recorded for the child molester groups only. Extra familial victims were older than intrafamilial victims, and also more likely to be male compared to gender proportions for intrafamilial victims. The ECM group had significantly more victims. Finally, ECM also scored higher on the risk assessment tool, the RRASOR.

The question of interest was to determine if child molesters are different from non child molesters on variables related to social competence. Given few differences existed between the subgroups (i.e. ICM and ECM, and NSO and CNO) on various descriptive variables, these four groups were collapsed into two groups: child molesters (CM) and non child molesters (NCM). A description of the two collapsed groups is summarized in Table 2. Significant differences between CM and NCM groups included age and education level, such that the NCM were younger and had achieved higher levels of education. Although differences existed between groups on sexual, violent, and general charges and convictions, these differences are a function of how the groups were defined and selected.

In order to ensure the appropriateness of collapsing across groups and to detect differences within the subgroups of CM and NCM, ANOVAs including all four groups were performed. Table 3 summarizes the differences between groups. The only difference within collapsed groups noted was between ICM and ECM on the ESQ-SR. Therefore, analyses to examine group differences were performed on the two groups: child molesters (CM) and non child molesters (NCM).

#### *Relationships Between Social Functioning Variables and Aggression*

Correlation matrices summarize the relationships between variables for child molesters (Table 4) and non child molesters (Table 5). For child molesters measures of general aggression (AQ, DIAS-AV) were significantly correlated with each other, and to the RRASOR. Tests of social intelligence (SIM-AV, FTSI) were correlated, as were general empathy measures (ESQ-SR, EM-AV). Across two measures, general empathy (EM-AV, ESQ-SR) was negatively related to general aggression (AQ, DIAS-AV), but not sexual aggression (RRASOR). General empathy (EM-AV, ESQ-SR) was also positively correlated with social intelligence (FTSI, SIM-AV). Victim empathy (CMEM-V) was correlated with indices of general empathy from the same measure (CMEM), and negatively related to cognitive distortions (MS).

For non child molesters measures of aggression (AQ, DIAS-AV) and general empathy (EM-AV, ESQ-SR) were significantly negatively correlated. Furthermore, social intelligence (SIM-AV, FTSI) was positively correlated with general empathy (ESQ-SR, EM-AV, CMEM-G). Measures of victim empathy (CMEM-V), and cognitive distortions (MS) did not correlate with any other variables.

Of particular interest for the present analyses are the relationships between social desirability, measured by the PDS, and other variables of interest. The PDS was significantly correlated with the DIAS-AV, AQ and EM-AV in both groups, and the ESQ-SR and MS in the CM group. Therefore, it was included, along with confounding demographic variables, as a covariate in the analyses of variance for these particular variables.

#### *Hypothesis One: Group Comparisons*

A series of between-subjects analysis of covariance (ANCOVA) were used to evaluate hypothesis one. Specifically, what differences exist between child molesters and non child molesters on the following variables: social intelligence (SIM-AV, FTSI), empathy (ESQ-SR, EM-AV, CMEM), cognitive distortions (MS), and aggression (DIAS-AV, AQ), after controlling for confounding variables. Descriptive variables that differed between the comparison groups (i.e. CM and NCM) were entered as covariates in the analyses, along with PDS scores where appropriate. Levene's test for homogeneity of variance was calculated for each analysis. The results were not significant and are reported in Table 6. Adjusted means and standard deviations are summarized for the ANCOVAs in Table 7.

#### *Social Intelligence*

Two measures of social intelligence were examined, SIM-AV and FTSI. The ANCOVAs included age and education as covariates. Overall, the ANCOVA for the SIM-AV scores was significant. The inclusion of covariates failed to account for significant variance in the analysis. This finding suggested that NCM are more socially intelligent than CM.

The ANCOVA for FTSI was not significant. Age and education were again included as covariates. Age failed to account for any significant variance. However, education significantly covaried with FTSI scores,  $F(1, 179) = 20.80, p < .001$ . These results indicated that after accounting for education, no differences between CM and NCM on social intelligence existed. For the purpose of further exploring specific deficits with respect to social intelligence, groups were compared on each subtest. As with the FTSI total scores, across subtests, no differences between groups were observed, after accounting for education.

#### *General and Victim Empathy*

General and victim specific empathy were evaluated based on the ESQ-SR, EM-AV, and CMEM. The ANCOVA for the ESQ-SR included age, education, and PDS scores as covariates. No significant group difference was found on the ESQ-SR after accounting for the effect of the PDS scores. The PDS significantly covaried with ESQ-SR scores,  $F(1, 178) = 6.38, p = .012$ . Therefore, the tendency to present oneself in a favourable manner accounted for potential differences between groups on this measure of general empathy.

The ANCOVA for the EM-AV also included age, education, and PDS scores as covariates. EM-AV scores for CM and NCM were not significantly different. Although age did not covary with this measure of general empathy, PDS scores and education were both significant,  $F(1, 178) = 23.61, p < .001$ , and  $F(1, 178) F = 4.94, p = .027$ , respectively. Therefore, again socially desirable responding, and in this case, higher education accounted for whatever differences might exist between CM and NCM on general empathy.

The CMEM was used to evaluate both general and victim specific types of empathy. Each of the three scenarios for the CMEM was evaluated separately, and covariates included age and education. The ANCOVAs for CMEM Scenario 1 and Scenario 2 were not significant, suggesting that CM and NCM do not differ with respect to general empathy. However, a significant effect was observed for CMEM Scenario 3. NCM had higher Scenario 3 scores than CM, which suggests that child molesters experienced less empathy for their own victim compared to NCM. An additional within subject ANOVA revealed that compared to their own responses on Scenarios 1 and 2, CM also reported significantly lower scores on Scenario 3,  $F(1, 121) = 287.64, p < .001$ . This finding indicates that CM exhibit victim specific empathy deficits, which are both significantly less than the empathy experienced by NCM, and also compared to their experience of empathy for nonvictims. None of the covariates accounted for significant variance in these analyses.

#### *Cognitive Distortions*

The ANCOVA for the MS included age, education, and PDS scores as covariates. PDS scores accounted for significant variance in this analysis,  $F(1, 178) = 4.43, p = .037$ . However, even after accounting for the variance associated with response style, the results were still significant, such that CM had higher scores than the NCM group.

#### *General Aggression*

Two measures of general aggression were compared. Covariates for both ANCOVAs included age, education, and PDS scores. The ANCOVA for DIAS-AV was not significant. PDS scores and age significantly covaried with DIAS-AV scores,  $F(1, 178) = 55.56, p < .001$ , and  $F(1, 178) = 15.78, p < .001$ , respectively, suggesting that

greater socially desirable responding and age account for differences in self-reported aggression.

Similarly, ANCOVA results on the AQ were also not significant, and age and PDS significantly covaried with AQ scores,  $F(1, 178) = 11.75, p = .001$ ,  $F(1, 178) = 65.61, p < .001$ , respectively. AQ factors were analyzed separately to further explore aspects of aggression between groups. As with the AQ total scores, CM and NCM groups did not differ on the P and V factors, after accounting for the significant effects of age and PDS scores as covariates.

A second purpose of the study was to examine the nature of the relationship between social intelligence, victim empathy, and cognitive distortions in predicting sexual aggression in child molesters. Only child molesters were included in these analyses because the purpose was to examine and extend the model proposed by Björkvist et al. (2000) in sexual offenders specifically. Given that few differences existed between the ICM and ECM groups they were collapsed into one group, consisting of 111 child molesters after multivariate outliers were removed.

#### *Hypothesis Two: Predicting Aggression in Child Molesters*

Regression analyses were performed to examine how social intelligence, cognitive distortions, and victim empathy are associated with aggression in child molesters. To investigate the prediction of sexual aggression, RRASOR scores represented the criterion variable. Although RRASOR scores are indicative of *future* risk for sexually aggressive behaviour, these scores are the product of summing factors related to the index offence, which are known to be associated with a greater proclivity to sexual aggression.

*Sexual Aggression*

A linear regression was performed using predictor variables, SIM-AV, ESQ-SR, EM, CMEM-G, CMEM-V, and MS. Three indicators of empathy were included. Both the ESQ-SR and the EM-AV represent measures of general empathy and were psychometrically sound. Although, neither tool differentiated between groups, they were included to explore what, if any, contribution either measure would make in the prediction of sexual aggression. Although, theoretically the CMEM is a measure of victim specific empathy (the type of empathy implicated in sexual offending behaviour) the CMEM performed quite poorly psychometrically. However, for the purpose of examining its potential contribution, scores for general and victim specific empathy were included from this measure.

All variables which represented potential confounds (i.e. PDS, marital status, victim age, the number of victims) were included in the regression analyses. These covariates represent those variables, which correlated with predictor variables and/or differed between the two groups of child molesters.

It is noteworthy that a significant difference existed between the two groups of child molesters on victim gender. However, given this variable is an item on the RRASOR, it was not included. Therefore, covariates: PDS, marital status, victim age, and the number of victims were entered in block 1, and collectively, scores for the SIM-AV, EM-AV, ESQ-SR, CMEM-G, CMEM-V, and MS were entered into block 2. The results of the regression are summarized in Table 8.

After all variables were entered the overall  $R$  was significant,  $F(10, 100) = 2.75$ ,  $p = .005$ . Covariates in block 1 were collectively significant,  $R^2 = .20$ ,  $F(4, 106) = 6.40$ ,  $p$

<.001, accounting for 20% of the variance. However, marital status was the only significant covariate,  $t(106) = -4.50, p < .001$ . The predictor variables in block 2 did not significantly predict sexual aggression over and above the covariates,  $R^2 = .16, \Delta F(6, 100) = .440, p = .850$ , and accounted for only 2% of the variance.

Given that few proposed covariates accounted for variance in the initial regression equation, a follow-up regression was performed without extraneous covariates.

Therefore, only marital status was included as a covariate in block 1, and the same predictors (SIM-AV, EM-AV, ESQ-SR, CMEM-G, CMEM-V, and MS) were entered into block 2. The results are summarized in Table 9. The overall  $R$  was significant,  $F(7, 103) = 3.36, p = .003$ . As expected, the covariate in block 1 was significant,  $R^2 = .16, F(1, 109) = 20.87, p < .001$ , accounting for 16% of the variance. This suggests that marital status on its own accounted for most of the variance absorbed by the covariates in the first regression analyses. This indicates that within child molesters, being in a union is negatively related to risk for future sexual offending. The predictor variables in block 2 were not significant after controlling for marital status,  $R^2 = .18, \Delta F(6, 103) = .527, p = .787$ , but still accounted for 2% of the variance in the prediction of sexual aggression.

### *General Aggression*

Given the predictor variables performed so poorly in the regression analyses for sexual aggression, the model was tested for general aggression. Another series of linear regressions were performed with general aggression as the criterion variable. The AQ was selected as the better measure of general aggression because of good psychometric properties, validated subscales, and evidence of discrimination between child molesters and nonsexual offenders.

Variables identified as potential confounds included PDS, marital status, victim age, number of victims, and RRASOR scores. As with the previous regression analyses, these variables were included either because they were correlated with predictor variables or because they differed between the two groups of child molesters. Again, victim gender was not included because it is an item on the RRASOR, and would therefore be redundant in the analyses. Covariates were entered into block 1. Block 2 included the same predictor variables as above, including SIM-AV, EM-AV, ESQ-SR, CMEM-G, CMEM-V, and MS. The results of this regression are summarized in Table 10.

When all variables were included after the final block, the  $R$  was significant,  $F(11, 99) = 8.08, p < .001$ . The first model representing the covariates, was significant,  $R^2 = .37, F(5, 105) = 12.39, p < .001$ , accounting for 37% of the variance. PDS scores,  $t(105) = -6.30, p < .001$ , was a significant covariate, suggesting that socially desirable responding was negatively related to aggression scores. The predictor variables were also collectively significant,  $R^2 = .47, \Delta F(6, 99) = 4.33, p = .001$ , accounting for 14% of the variance. Only general empathy (ESQ-SR) made a unique contribution to the prediction of general aggression,  $sr^2 = -.30, t(99) = -4.15, p < .001$ .

Based on the results of this first regression, another linear regression was performed, including only the significant covariate, PDS scores. By eliminating nonproductive covariates the equation is more powerful in predicting aggression. The same predictor variables (SIM-AV, EM-AV, ESQ-SR, CMEM-G, CMEM-V, and MS) were entered into block 2. The results of this regression are summarized in Table 11. With all variables entered the regression was significant,  $R = .66, F(7, 103) = 11.63, p < .001$ . With the inclusion of the covariate, the model for block 1 was significant,  $R^2 = .29,$

$F(1, 109) = 44.85, p < .001$ , accounting for 29% of the variance. After the predictor variables were included in block 2, the equation remained significant,  $R^2 = .44, \Delta F(6, 103) = 4.61, p < .001$ , accounting for 15% of the variance. Therefore, by eliminating the extraneous variables the regression equation remained unchanged. The ESQ-SR remained the only unique predictor to reach significance,  $sr^2 = .32, t(103) = -4.39, p < .001$ .

To further examine the contribution of the ESQ-SR to the equation, a follow-up regression was performed on the reduced model where the ESQ-SR predicts aggression singularly. Table 12 summarizes the results of this regression. Based on this regression, after controlling for the same covariate in block 1 (PDS scores), ESQ-SR scores alone accounted for 11% of the variance,  $\Delta F(1, 108) = 19.05, p < .001$ . This finding indicates that 11% of the variance in the full model was accounted for by ESQ-SR scores.

#### *The Role of Cognitive Distortions in Predicting Aggression*

A hierarchical regression was used to examine the unique contribution of cognitive distortions in the prediction of aggression in child molesters. Given the results of the linear regression in predicting sexual aggression, this analysis was completed for general aggression only. The results of the regression are summarized in Table 13. PDS scores were entered in the first block. In the second block, social intelligence (SIM-AV), empathy (ESQ-SR), and victim empathy (CMEM-V) were entered together as predictors of general aggression from the original formulation,  $SI - E = A$  (Björkvist, et al., 2000). Two empathy measures were included because they each accounted for meaningful variance in the original regression equation, and also based on the proposition that victim empathy is particularly relevant in this formulation for sexual aggressors.

Cognitive distortions (MS) were entered last, in block 3, to examine what if any unique variance was left unaccounted for, and explained by the inclusion of MS scores in the prediction of general aggression in child molesters. The criterion variable was aggressive behaviour (AQ). The overall  $R$  was significant,  $F(5, 105) = 16.06, p < .001$ , suggesting that the variables together accounted for significant variance in predicting AQ scores. As expected, the covariate was significant,  $R^2 = .29, F(1, 109) = 44.85, p < .001$ , accounting for 29% of the variance. After controlling for the covariate in block 1, empathy (ESQ-SR, CMEM-V) and social intelligence (SIM-AV) in block 2, also made a significant contribution,  $R^2 = .43, \Delta F(3, 106) = 8.74, p < .001$ , and accounted for an additional 14% of the variance. Finally, cognitive distortions (MS) in the last block did not make a unique contribution in the regression equation,  $R^2 = .43, \Delta F(1, 105) = .10, p = 0.75$ .

### *Hypothesis Three: The Route to Aggression in Child Molesters*

Path analysis is a statistical procedure, which examines the associative strength between variables. These variables are theoretically ordered to convey a path and suggest a causal relationship. Of course, path analysis does not permit a true test of causality given the original design of this study. However, it allows one to compare theoretically determined causal models of the nature of relationships between variables. Path analysis allows one to assess the relative importance of various direct and indirect routes.

In order to evaluate the model proposed in this path analysis, a series of three linear regressions were performed for sexual offenders to evaluate which route best describes the relationship between social intelligence and aggression. Given that the variables of interest were not associated or predictive of sexual aggression, only general

aggression was considered in the path analysis. Based on each regression, a coefficient is determined for the relationship between variables and the criterion, which is then used to define and later, evaluate paths. In order to gather coefficients, each leg of all the various routes must be accounted for. The coefficients are then combined to create a path or route between variables. These paths can then be compared to determine which one best explains the relationship between the series of variables in predicting a criterion variable.

Table 14 summarizes the standardized coefficients or beta weights associated with each regression for the path analysis. Predictors, social intelligence, cognitive distortions, and general empathy were entered into the first linear regression to evaluate their individual paths to aggression. The overall regression was significant,  $R^2 = .22$ ,  $F(3, 107) = 10.05$ ,  $p < .001$ .

A second regression was performed to evaluate the paths to empathy (ESQ-SR). Social intelligence and cognitive distortions (SIM-AV, MS) were entered as predictors. These variables together did not significantly predict empathy in child molesters,  $R^2 = .05$ ,  $F(2, 108) = 2.64$ ,  $p = .08$ . It should be noted that the regression could be evaluated as a trend at this significance level. The last regression examined the path from social intelligence (SIM-AV) to cognitive distortions (MS). The overall regression was not significant,  $R^2 = .002$ ,  $F(1, 109) = 0.18$ ,  $p = .68$ . Figure 2 illustrates the possible paths and the strength of the association between variables within each leg of the various routes.

In order to evaluate the best route, and determine if empathy and cognitive distortions add value to the relationship between social intelligence and general aggression, the beta weights for the direct route from the first regression (social

intelligence to aggression) were compared to the product of the beta weights for the indirect route from the second regression (social intelligence to cognitive distortions to victim empathy), and the third regression (social intelligence to cognitive distortions) combined.

Direct route:

Social intelligence → Aggression

$$= -0.02$$

Indirect route 1:

Social intelligence → Empathy → Aggression

$$0.08 \times -0.47 = -0.04$$

Indirect route 2:

Social intelligence → Cognitive distortions → Empathy → Aggression

$$-0.04 \times -0.20 \times -0.47 = -0.004$$

The predictive strength of a path is denoted by larger beta weight values. The strongest route was the direct path between social intelligence and aggression. The overall effect was that social intelligence has a negative impact on aggression (-0.02), however the strength of this path was not significant. Furthermore, this path was not augmented by the addition of cognitive distortions or victim empathy.

In evaluating the total effect for indirect routes, the summed totals associated with the indirect routes are added together.

Total indirect effect:

$$\text{Indirect route 1} + \text{indirect route 2} = -0.04 + -0.004 = -0.04$$

To evaluate the total causal effect of all routes considered between social intelligence and general aggression, the summed totals of the indirect routes are added to the coefficient of the direct route.

Total causal effect:

$$\text{Direct route} + \text{total indirect effect} = -0.02 + -0.044 = -0.06$$

Therefore, based on these comparisons, no explanatory strength is added by the inclusion of empathy and cognitive distortions when describing the relationship between social intelligence and general aggression in child molesters.

## Discussion

The present dissertation proposed and tested a model for the role of social functioning in the molestation of children. The first set of analyses sought to replicate previous findings supporting the notion that child molesters are deficit on indicators of social competence. In the present study social competence was comprised of social intelligence, empathy (both general and victim specific), and beliefs and attitudes about sex with children, defined as cognitive distortions. Child molesters, comprised of both intra- and extra-familial offenders, were compared to a group of non child molesters, which included both nonsexual violent offenders and community nonoffenders.

As a second component of this research, cognitive distortions were proposed as a unique factor in the explanation of sexual aggression. This proposed model builds on a theory of general aggression (Björkvist et al., 2000) by suggesting cognitive distortions make a unique contribution in the explanation of sexual aggression. The role of these variables (i.e. social intelligence, victim/general empathy, and cognitive distortions) in predicting general and sexual aggression was evaluated in a group of child molesters.

Finally, a hypothesized sequence or order with respect to the relationships between variables was evaluated. Specifically, based on the etiological theories of child sexual abuse, deficits in social intelligence are believed to negatively impact on problematic beliefs and attitudes about sex with children, which then inhibit empathic responses and thus contribute to aggressive behaviour. This path explaining the relationship between social functioning variables was examined in a group of child molesters.

*Hypothesis One: Group Comparisons*

It was hypothesized that child molesters would be less socially intelligent than non child molesters. This hypothesis was partially supported by differences observed between groups with respect to social intelligence, as measured by the SIM-AV. This finding is consistent with previous research findings, which suggest that as a group child molesters demonstrate deficits in the skills necessary for effective adult social interaction, such as recognizing emotional/ facial information, and influencing the behaviours of others (Hudson & Ward, 2000; Marshall, Barbaree, & Fernandez, 1995). According to etiological models for sexual offending and child molestation, deficits in social competence are a consequence of early negative experiences, and associated social learning (Marshall & Barbaree, 1990). Deficits in social intelligence are believed to be particularly pronounced in adult heterosocial interactions, and so child molesters turn to children to meet their needs for social connection and intimacy (Finkelhor, 1984).

Although correlated, the two social intelligence measures performed differentially in distinguishing the two groups. One explanation is that the FTSI is quite a long measure, and therefore participants may have struggled to attend consistently throughout the administration. Also, some instructions required further explanation, and yet despite this, may have remained somewhat confusing for participants. Also, the measures differed with respect to stimuli presentation. The SIM-AV requires the participant to read and comprehend verbal information, whereas items of the FTSI are presented non-verbally. Therefore, differences between groups on abilities in this domain may account for why the two measures differentially assessed social intelligence, such that differential performance on the SIM-AV is actually indicative of verbal processing differences

between groups. Further study of social intelligence based on non-verbal tools will be useful to discern if findings from verbal-based assessment are replicated.

Empathy is consistently implicated in deficit models for sexual offenders, and has been demonstrated to be negatively correlated with all types of aggression (Björkvist, et al., 2000; Marshall et al, 1995; Marshall et al., 1993). It has been argued that sexual offenders, including child molesters, do not suffer from generalized empathy deficits compared to other offenders or nonoffenders, but rather suspend empathy for a specific victim (Fernandez & Marshall, 2003; Fernandez, Marshall, Lightbody, & O'Sullivan, 1999). This empathy effect has been demonstrated most strongly with respect to specific victims of sexual abuse, and it was hypothesized that child molesters would demonstrate empathy deficits when considering their own victims. This hypothesis was supported. Child molesters did not differ from non child molesters on measures of general empathy, as measured by the EM-AV, ESQ-SR, and CMEM-G. Victim specific empathy deficits, as measured by CMEM-V were evaluated in two ways. When child molesters were compared to nonsexual offenders, the child molesters demonstrated significantly less empathy toward their own victims. Additionally, compared to their own responses to other scenarios, child molesters demonstrated a deficit in victim specific empathy. Clearly, victim specific empathy is relevant to sexually offending given both between and within group deficits. It is believed that child molesters, like all aggressors, experience a lapse in empathy when committing a violent act. Based on the present study, this is proposed to be the result of negative attitudes and beliefs about sex with children. Indeed, child molesters endorsed significantly more cognitive distortions about sexual contact

with minors, and these scores were inversely related to victim specific empathy, but not general empathy.

Cognitive distortions regarding sexual contact with children were hypothesized to be greater in child molesters compared to non child molesters, and this was in fact the case. This finding provides further evidence that child molesters do endorse offence supportive attitudes that differentiate this group from other individuals. However, what is less clear is whether negative attitudes and beliefs about sexual contact with children are the cause or consequence of perpetrating sexual abuse. The role of cognitive distortions in predicting general and sexual aggression is discussed further below.

As hypothesized there was no difference in general aggression, as measured by the AQ and DIAS-AV between child molesters and non child molesters. Although the targets may be different, their tendency toward aggression in various forms (e.g. direct, indirect) does not differentiate these groups.

It is important to note that the covariates played a significant role in a number of the analyses. Education accounted for differences between groups on social intelligence (FTSI) and general empathy (EM-AV), such that lower levels of education in the child molester group better accounted for the differences observed on social intelligence and empathy. Previous research has found that academic intelligence and social intelligence are unique factors. Although, the relationship with education may initially suggest otherwise, one also wonders about the social context within which formal education (measured as achievement in the present study) exists. Individuals may withdraw from school or demonstrate difficulties in school as a result of social functioning problems.

Age also played an explanatory role in understanding differences between the groups with respect to general aggression, such that older age in child molesters versus non child molesters accounted for potential differences on general aggression between groups, as measured by AQ and DIAS-AV. This finding is consistent with strong support for the decrease in crime and violence observed in all types of offenders, including sexual offenders, with age (Barbaree, Blanchard, & Langton, 2003; Blanchard & Barbaree, 2005). However, age did not covary with other variables of interest such as social intelligence or empathy.

Finally, impression management has been identified as influencing responses obtained by forensic participants. Measures of aggression, empathy, and cognitive distortions (in CM only) were unduly influenced by tendencies on the part of respondents to present themselves in a favourable light. PDS scores significantly covaried with measures of empathy (ESQ-SR, EM-AV), aggression (AQ, DIAS-AV), and cognitive distortions (MS), but only MS scores remained significantly different between groups after response style was controlled for. These findings support the assertion that self-report data is vulnerable to impression management, and response style should be considered when administering self-report questionnaires. Of course, performance based and objective measures, such as the FTSI, would also minimize the effects of impression management. Despite efforts to consider and control for potential confounding variables, the factors considered in the present study are not exhaustive and so one cannot rule out the possibility that other factors impacted on the findings.

Comparisons of child molesters and non child molesters largely replicated previous research findings. Consistent with the hypotheses, there was evidence that

compared to non child molesters, child molesters were less socially intelligent, experienced victim-specific empathy deficits, endorsed negative attitudes and beliefs about sexual contact with children, and were equally aggressive.

*Hypothesis Two: Predicting Aggression in Child Molesters*

The second part of this study examined the relationships between variables. Firstly, it was proposed that in child molesters empathy would be negatively associated with aggression, and cognitive distortions would be positively associated with aggressive behaviour. This hypothesis was partially supported. Consistent with previous research, general empathy was negatively related to general aggression, supporting the position that deficits or situational inhibition of empathy are associated with increased proclivity toward aggression. Interestingly, this relationship was not mirrored for sexual aggression. Additionally, no relationship existed between social intelligence and sexual aggression, nor between cognitive distortions and sexual aggression, which was contrary to the hypothesis in both instances. The implications of these findings are discussed below.

Other correlations were supportive of the theoretical relationships between social functioning variables. For example, social intelligence was positively associated with general empathy, and this correlation, along with the relationship between empathy and aggression, map well onto the model reported by Björkvist et al. (2000). Furthermore, cognitive distortions were negatively associated with victim empathy, which offers support for the notion that negative attitudes and beliefs about sexual contact with children are associated with decreases in the experience of victim specific empathy. Although no direct relationship was observed, these correlations together, offer support

for the relationship between social intelligence, general and/victim specific empathy, cognitive distortions and aggression.

As a further step toward understanding how these various factors are related to aggression in an integrated way, hypothesis two tested the ability of social intelligence, empathy, and cognitive distortions to predict sexual and general aggression. Given the variables were not correlated with sexual aggression, it was not surprising that the variables did not predict sexual aggression, as measured by RRASOR scores. There are a number of explanations for the lack of support for this hypothesis. Of course, it may be that these factors, namely social intelligence, empathy, and cognitive distortions, do not explain much of the variance when predicting sexual aggression. Although, differences do exist between sexual offenders and nonsexual offenders on these factors, they may not be relevant to the etiology and maintenance of sexual offending specifically. Furthermore, such differences may be artifacts of other, more meaningful or reliable, constructs, such as marital status.

Significant variance was accounted for by marital status in the prediction of sexual aggression, and may have better accounted for aggression scores than other social competency factors. Marital status was negatively correlated with RRASOR scores, suggesting that being in a relationship is associated with less risk for sexual reoffending. The role of marital status in sexual offending has received significant support, and is included as one of only ten items in the Static-99 (Hanson & Thornton, 2000), a risk assessment tool for sexual reoffending. It seems likely that social functioning constructs would impact on the likelihood that one secures a romantic relationship, and furthermore the quality of that relationship.

Another possible explanation is related to issues of power. Initial sample size estimates were based on 7 predictors and a medium effect size. Based on these parameters approximately 106 participants would be required to ensure adequate power. In the actual regression analyses 10 predictors were entered (including covariates), which would have required 130 participants, versus the 111 available for analysis. However, this discrepancy is likely not significant enough to solely undermine the ability of the variables to predict sexual aggression collectively, particularly because some effects were larger than estimated. In the tests of the group differences, effect sizes ( $\eta^2$ ) for variables used in the regressions were quite large. Furthermore, when extraneous covariates were removed, thus increasing the power of the analysis, the predictive ability of the model did not improve.

Finally, the measure of sexual aggression, the RRASOR, may not be a good method of operationalizing this construct. Although RRASOR scores are one of the best predictors of risk for future reoffending (Hanson, & Morton-Bourgon, 2004), perhaps causal and maintenance factors are significantly distinct. Therefore, attempting to explain the etiology of offending by predicting scores on a measure developed to predict reoffending potentially confounded the results. Although other options may be available, they too come with their own potential problems. For example, a self-report measure, such as the AQ, for sexual aggression could be developed. However, such a measure may be flawed by attempts to balance face validity with guards against the potential for impression management. Behavioural measures, such as plethysmography present another possibility for assessment, however, one must be clear in differentiating between sexually deviant arousal and the mechanisms involved in perpetrating acts of sexual

aggression. Sexual deviation is likely one element, but surely does not capture the complex social motivations for engaging in the behaviour.

Although the model performed better when applied to general aggression, the hypothesized relationships were only partially supported. General empathy was the only predictor that reliably contributed to the equation for general aggression. Although victim specific empathy showed promise, once the extraneous covariates were removed, its contribution became less meaningful. In child molesters, response style, and general empathy accounted for almost half of the variance in predicting general aggression.

As mentioned above the inverse relationship between empathy and aggression is well documented. It appears that the other elements of social competence proposed in the present study contribute little when considering this relationship in child molesters. This is surprising given the relationships between social intelligence and empathy, and aggression described by Björkvist et al. (2000).

Despite evidence that sexual offenders, and child molesters specifically, demonstrate impairment on indicators of social intelligence, social anxiety, and social skills, no relationship between social intelligence and any type of aggression was observed in this group of child molesters. One possible explanation is that such deficits do not, in fact, play an etiological role in aggressive behaviour, or none that accounts for such behaviour over and above that which is determined by empathy. Another possible explanation has to do with the measurement of social intelligence. Both tools were defined as measures of social intelligence versus social skills, or emotional intelligence. Neither measure, nor the construct has been previously applied to sexual offenders. Therefore, perhaps these measures were not adequate in reflecting the types of deficits

previously identified in other research on socially relevant factors. For example, requiring the participant to nonverbally decode social interactions, such as in the FTSI.

The relationship between empathy and general aggression is consistent with a large body of research. General empathy deficits predicted general aggression, but not sexual aggression. Additionally, a subtest of victim specific empathy also failed to contribute to explanations for either type of aggression. Given the reliable relationship between empathy and aggression, it was surprising that it did not also play a role in sexual aggression. However, one must consider two motivating forces in sexual aggression. Sexual interest and/or emotional attraction are believed to interact with aggressive tendencies, and therefore the ability to override the rights of another person and physically abuse them in some way. It may be that empathy deficits are relevant to aggressive versus sexual aspects of a sexual offence, and so are less relevant to predictions of sexual aggression, than deviant arousal may be.

The third part of the hypothesis was also not supported. Cognitive distortions did not account for any unique variance in the prediction of general aggression in child molesters, after accounting for empathy and social intelligence. Given other results from this study, the present finding was not surprising. However, from a theoretical perspective, the lack of association between aggression, either sexual or general, and negative attitudes and beliefs about sex with children was somewhat perplexing. Cognitive distortions about sexual offending have often been included as an important part of explanatory theories (Marshall & Barbaree, 1990; Ward, Hudson, Johnston, & Marshall, 1997; Ward & Siegert, 2002). However, recently some researchers have argued that cognitive processes or themes, rather than content, are relevant to understanding the

cognitive role of sexual offending (e.g. Ward & Keenan, 1999). Self-report measures, such as the one used in the present study may narrowly focus on the content of such cognitive processes. This content may simply be too transparent, and result in responses based on a participant's attempt to present himself in a positive light, or be too narrow and not personally relevant to the offender. However, one must also consider that such attitudes simply play a limited role. For example, in predicting sexual reoffending, child molester attitudes had a very small effect on recidivism (Hanson & Morton-Bourgon, 2004). However, research on implicit cognitions, reflecting schemas about offending, seem to hold more promise. Implicit cognitions were measured in a group of child molesters drawn from a similar sample to the present study. (Nunes, Firestone, & Baldwin, 2007). The results suggest that child molesters view children as sexually attractive compared to nonsexual offenders, and this finding was significantly related to greater risk for sexual recidivism. Furthermore, the view that children are more powerful was also associated with greater risk for recidivism as measured by the RRASOR.

*Hypothesis Three: The Route to Aggression in Child Molesters*

The hypothesis that the relationship between social intelligence and aggression would be accentuated by cognitive distortions and empathy was not supported. The proposed indirect route (Figure 1) was not stronger than the direct route between social intelligence and aggression.

This finding suggests that the addition of cognitive distortions and empathy don't account for a relationship between social intelligence and aggression. Not only does this apply to the examination of specific alternative routes, but also when comparing the total causal effects and direct effects. These data indicate that the proposed and tested indirect

routes together do not enhance the explanatory strength of social intelligence in predicting aggression. Furthermore, the data do not support the particular causal pathway proposed.

Interestingly, despite insignificant findings, the direction or nature of the relationships was as predicted. Specifically, social intelligence was negatively related to cognitive distortions, which were negatively related to general empathy, which was negatively related to aggression.

Given the lack of support for the role of cognitive distortions in the prediction of aggression, it was not surprising that the path, which included cognitive distortions, would not be the strongest. However, it is noteworthy that two of the three legs of the proposed route were significant, such that cognitive distortions were significantly negatively related to empathy and empathy was significantly negatively related to aggression. Only social intelligence was not related to the other variables.

Based on the present research, the role of social functioning (comprised of social intelligence, general and victim specific empathy, and cognitive distortions) in explaining sexual and general aggression appears limited. However, many factors can and should be considered in reevaluating this role, including measurement issues in particular. Clearly, how we understand and conceptualize the role of social functioning in sexual offending requires further examination.

#### *Clinical Implications*

Although ongoing research is necessary to determine the integrated role of social competency factors in sexual aggression, the present results may have implications for the treatment of sexual offenders. Currently, social skills, empathy and cognitive

distortions are components of many standardized treatments offered to sexual offenders. The justification for the inclusion of such treatment targets is based on evidence which suggests that sexual offenders are, in part, distinguished by skills deficits in these domains (Marshall, Marshall, Serran, & Fernandez, 2006), and that such deficits are related to aggression. The present study supports the claim that in child molesters empathy is negatively related to aggression, and that victim-specific deficits are an important part of the clinical picture. Furthermore, when the constructs are examined as an integrated whole, there was evidence that negative beliefs and attitudes about sexual contact with children were predictive of empathy deficits, and that these empathy deficits predicted general aggression in child molesters.

The observed indirect path to aggression suggests that factors such as empathy and cognitive distortions are not independent treatment targets, but instead should be considered together and possibly in a similar sequence to what is proposed here. For example, there may be some therapeutic benefit to addressing and challenging cognitive distortions intellectually, before engaging sexual offenders in exercises aimed at increasing the emotional experience of empathy for victim groups and specific victims.

It is difficult to conclude decisively that there is no place for social intelligence in sexually aggressive behaviour based on the methodological and conceptual issues raised above. Therefore, the implications for the role of social skills enhancement as part of treatment is also less clear. If improving social intelligence does not impact on sexual aggression directly, might it interact with other factors not examined in the present study, such as improving offenders' abilities to develop other treatment areas more directly related to sexual aggression (e.g. empathy, self-esteem, or intimacy)? Another possibility

is that improved social intelligence might have the effect of improving treatment engagement by providing clients with skills to more accurately access multiple modes of social information? As part of clarifying the role of social intelligence in etiological models for sexual aggression, its place in treatment and the mechanisms by which it works must also be considered.

#### *Summary of Findings, Limitations, and Future Research*

Consistent with previous findings, child molesters demonstrated deficits with respect to social intelligence, victim specific empathy, and cognitive distortions compared to non child molesters. These results provide ongoing support for the assertion that those individuals who commit sexual offences are different from those who do not, and these characteristics are believed to be relevant to etiological theories about sexual offending (Hudson & Ward, 2000)

A model was proposed to integrate these differentiating and theoretically derived variables. However, the hypothesized relationships and routes were not strongly supported. Etiological theories of sexual offending, are multidimensional, and the present study attempted to examine and integrate one dimension of comprehensive causal models, namely social functioning. Based on the model, SI-E=A by Björkvist et al. (2000), it was anticipated that the same would be true for aggression in sexual offenders, and child molesters, as a subset, were examined in the present study. Not only are these factors consistently identified in theory development and known to differentiate sexual and nonsexual offenders, they also mapped nicely onto this existing model of general aggression. However, in order to account for sexual aggression, the model was extended to include sexual attitudes and beliefs as an additional factor, which was expected to add

explanatory power. However, based on the results reviewed above, it appears that neither model performed very well in explaining general and/or sexual aggression in child molesters.

It is perplexing that the results would stray so far from those hypothesized, and so one wonders what other factors may explain the findings. One explanation is that the variables examined in the present research are not sufficient to explain general or sexual aggression in child molesters, and researchers should look elsewhere when operationalizing social functioning in sexual offenders. Intimacy deficits represent another variable considered in theories about sexual offending. The inability to forge intimate connections with adult partners may be a more appropriate bridge between social intelligence and aggression, such that social intelligence deficits may contribute to problems with intimacy more directly. Indeed, researchers have identified intimacy deficits as a critical aspect of social competence in sexual offenders (Hudson & Ward, 2000; Marshall, 1993; Marshall & Marshall, 2000). Furthermore, intimacy deficits likely have their roots in insecure attachments, which have also been identified in explanations of sexual offending (Marshall, Serran, & Cortoni, 2000; Smallbone & Dadds, 2000). In examining such interpersonal deficits, and given the strong suggestion of developmental adversity, future research may also improve upon the present study by including examinations of developmental factors, such as abuse, criminal environments, or inconsistent parenting, to see what contribution they make to the development of problematic attachments, and intimacy deficits.

As mentioned earlier, the study may have been undermined by the use of self-report, and also the use of correlation analyses to test causal models. Such data is often

less reliable than demographic or objectively determined data. Indeed the demographic variables performed very well in explaining sexual aggression. Future research may attempt to employ objective measures, such as an experimental manipulation, or observation. One potential alternative measure is the IAT to measure implicit cognitions. Although the present design is never ideal, we are often restricted to such research with this population, and so must develop and apply improved measurement tools.

Clearly child molesters are different from non child molesters on these variables, but this research does not provide evidence that these differences explain the initial decision to sexually offend. In fact, these factors may be a consequence of committing a sexual offence, via post offence rationalizations, humiliation and self-doubt, and victim-blaming. However, according to Ward and Siegert's (2002) pathways model, all sexual offenders, including child molesters may be a heterogeneous group, characterized by different pathways to offending, rather than simply target victims. This theory proposes that each pathway is characterized by a primary dysfunctional psychological mechanism, which constitutes a vulnerability factor, and ultimately plays a causal role in child sexual abuse. Therefore, instead of social intelligence or cognitive distortions about sexual offending, factors such as intimacy deficits (pathway 1), deviant sexual scripts (pathway 2), emotional dysregulation (pathway 3), antisocial cognitions (pathway 4), or a combination of these factors may interact with the basic model of aggression to predict sexual abuse. Future research is necessary to elucidate the relationship of such constructs and sexually aggressive behaviour in child molesters. The alternative constructs proposed by Ward and Siegert (2002) (e.g. intimacy issues, sexual deviance), along with further

examination of development vulnerabilities, such as attachment models, present exciting and promising directions for future research.

Certain issues warrant cautious interpretation of the results of the current study, such as the correlational, retrospective design, reliance on self-report measures, the representativeness of the sample, and the validity of the criterion measures. The study sought to explain various factors from an etiological perspective, and in fact the use of path analysis is a strategy for executing such a goal, particularly when one is restricted by sample size. However, the research remains correlational and as such, the causal direction of relationships can be theoretically interpreted, but the strength is limited without a prospective design. Although cognitive distortions and general empathy were supported as a part of a route to general aggression, one cannot say unequivocally, that these are causal factors in the commission of aggression. Despite the limitations associated with this type of design, it is typical of research with sexual offenders, because prospective studies are not viable options for a study such as the present one. Furthermore, by collecting and statistically controlling for several potential confounding variables, there is increased confidence in the validity of the current results.

Another issues to consider is the generalizability of the results. It is generally accepted that not all sexual offenders are represented by those who are ultimately charged and convicted. In fact, seven percent of community participants were excluded due to endorsed sexual deviation, sexual offending, or concern about their sexual behaviour. Further, not all sexual offenders are convicted or sentenced to federal institutions. Although, the present sample represents only a portion of sexual offenders, the federally incarcerated group are those to which it is important that the results generalize. These

men represent not only the most significant risk, but also are most likely to receive treatment. It is also the group upon which much of the previous research has been conducted and from which the present hypotheses are derived. All eligible sexual offenders in the Ontario region were approached to participate in the present study. Furthermore, all new offenders sentenced to the Ontario region within a one year period were also approached. Therefore, the present sample is quite representative of those child molesters incarcerated in a federal institution in Ontario. Future research may investigate the application of social functioning models in explaining sexual aggression in rapists, or different types of child molesters as described by Ward and Siegert (2002).

Finally, another potential limitation to the proposed study was the use of self-report data. PDS scores were associated with responses on measures of empathy, aggression, and cognitive distortions in child molesters. Self-report data were vulnerable to biased responding in the present study. Many indicators of functioning influence decisions about privileges while incarcerated, and opportunities for early release. Despite assurances of confidentiality, many incarcerated participants are suspicious and cautious about providing information they believe may be shared with Correctional Services of Canada, and thus potentially (they believe) used against them.

The proposed study has implications for understanding the role of social functioning in sexual aggression. The ways by which we understand aggression generally, namely as a product of social intelligence without empathy, may be too restrictive for understanding sexual aggression and may not capture the specific mechanisms that differentiate nonviolent, generally violent, and sexually violent behaviour in terms of social functioning. This research proposed and tested an alternative

model of the mechanisms of social functioning implicated in sexual offending, namely how negative attitudes and beliefs about sexual contact with children are an important contributor to the decision to use sex as a vehicle for aggression.

This research may contribute to work aimed at identifying what variables are relevant when considering how social functioning as a broad dimension, influences sexual aggressive behaviour toward children. Specifically, this research tested the hypothesized relationships between these constructs, such that poor social intelligence contributes to the development of cognitive distortions, which then inhibit empathic responses in sexual aggressors. Despite strong evidence that these factors differentiate sexual and nonsexual offenders, they do not appear to perform well in the explanation of offending. This first attempt at examining how these factors are integrated in a theoretically consistent way suggests that we need to continue investigating etiological models regarding social functioning, but also that just because factors differ between two groups does not mean they are causally relevant. In fact, differences in empathy, social intelligence, and cognitive distortions may be less powerful than other factors, such as education or marital status.

The findings have implications for how we understand aggression in child molesters. The present results confirm that empathy is an integral part of generally aggressive behaviour, and that cognitive distortions do contribute to diminished empathy in child molesters. However, the pathway to sexual violence remains an empirical question. Despite limited support for this proposed model of aggression, this research demonstrates the importance of transitioning from theory to empirical analysis, attempting to test the ability of differentiating variables to predict behaviour, and

integrating variables into more complex models to explain sexual aggression. This is a first attempt at integrating social functioning factors to explain sexual aggression in child molesters. Therefore, it will be important to examine social functioning in sexual offenders again before making conclusions about its role in sexually aggressive behaviour.

## References

- Abel, G. G., Gore, D. K., Holland, C. L., Camp, N., Becker, J. V., & Rathner, B. A. (1989). The measurement of the cognitive distortions of child molesters. *Annals of Sex Research, 2*, 135-153.
- Archer, J., Holloway, R., & McLoughlin, K. (1995). Self-reported physical aggression among young men. *Aggressive Behaviour, 21*, 325-342.
- Barbaree, H. E., Blanchard, R., & Langton, C. M. (2003). The development of sexual aggression throughout the life span. *Annals of the New York Academy of Sciences, 989*, 59-71.
- Barbaree, H. E., Seto, M. C., Langton, C. M., & Peacock, E. J. (2001). Evaluating the predictive accuracy of six risk assessment instruments for adult sex offenders. *Criminal Justice and Behavior, 28*, 490-521.
- Baxter, D. J., Marshall, W. L., Barbaree, H. E., Davidson, P. R., & Malcolm, P. B. (1984). Differentiating sex offenders by criminal and personal history, psychometric measures, and sexual response. *Criminal Justice and Behavior, 11*, 477-501.
- Björkvist, K., Lagerspetz, K. M. J., & Österman, K. (1992). *The Direct and Indirect Aggression Scales*. Vasa, Finland: Department of Social Sciences, Åbo Akademi University.
- Björkvist, K., Österman, K., & Kaukiainen, A. (2000). Social intelligence – empathy = aggression? *Aggression and Violent Behavior, 5*, 191-200.

- Blanchard, R., & Barbaree, H. E. (2005). The strength of sexual arousal as a function of the age of the sex offender. Comparisons among pedophiles, hebephiles, and teleiophiles. *Sexual Abuse: A Journal of Research and Treatment, 17*, 441-456.
- Bumby, K. (1996). Assessing the cognitive distortions in child molesters and rapists: Development and validation of the MOLEST and RAPE scales. *Sexual Abuse: A Journal of Research and Treatment, 8* 37-54.
- Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology, 63*, 452-459.
- Campbell, J. M., McCord, D. M. (1996). The WAIS-R comprehension and picture arrangement subtests as measures of social intelligence: Testing traditional interpretations. *Journal of Psychoeducational Assessment, 14*, 240-249.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 24*, 221-225.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-125.
- Deitz, S. R., Tiemann-Blackwell, K. T., Daley, P. C., & Bentley, B. J. (1982). Measurement of empathy toward rape victims and rapists. *Journal of Personality and Social Psychology, 43*, 372-384.
- Eisenberg, N., & Miller, P. A. (1987). The relationship of empathy to prosocial and related behaviors. *Psychological Bulletin, 24*, 221-225.
- Felson, R. B. (2000). A social psychological approach to interpersonal aggression. In V. B. Van Hasselt & M. Hersen (Eds.), *Aggression and violence: An introductory text* (pp. 9-22). Boston: Allyn and Bacon.

- Fernandez, Y. M., & Marshall, W. L. (2003). Victim empathy, social self-esteem, and psychopathy in rapists. *Sexual Abuse: A Journal of Research and Treatment, 15*, 11-26.
- Fernandez, Y.M., Marshall, W.L., Lightbody, S., & O'Sullivan, C. (1999). The child molester empathy measure. *Sexual Abuse: A Journal of Research and Treatment, 11*, 17-31.
- Feshbach, N. D. (1987). Parental empathy and child adjustment/maladjustment. In N. Eisenberg & J. Strayer (Eds.), *Empathy and its development* (pp.271-291). New York: Cambridge University Press.
- Finklehor, D. (1984). *Child sexual abuse: New theory and research*. New York: Free Press.
- Ford, M. E., & Tisak, M. S. (1983). A further search for social intelligence. *Journal of Educational Psychology, 75*, 196-206.
- Goody, E. E. (1995). *Social intelligence and interaction*. New York: Cambridge University Press.
- Hall, G. C. N., & Hirschman, R. (1991). Towards a theory of sexual aggression: A quadripartite model. *Journal of Consulting and Clinical Psychology, 59*, 662-669.
- Hall, G. C. N., & Hirschman, R. (1992). Sexual aggression against children: A conceptual perspective of etiology. *Criminal Justice and Behavior, 19*, 8-23.
- Hall, G. C. N., Howard, J. A., & Boezio, S. L. (1986). Tolerance of rape: A sexist or anti-social attitude? *Psychology of Women Quarterly, 10*, 662-669.
- Hall, G. C. N., & Proctor, W. C. (1987). Criminological predictors of recidivism in a sex offender population. *Journal of Consulting and Clinical Psychology, 55*, 111-112.

- Hanson, R. K. (1997). *The development of a brief actuarial risk scale for sexual offence recidivism*. Ottawa, Ontario, Canada: Ministry of Public Safety and Emergency Preparedness Canada.
- Hanson, R. K., Gizzarelli, R., & Scott, H. (1994). The attitudes of incest offenders: Sexual entitlement and acceptance of sex with children. *Criminal Justice and Behavior, 21*, 187-202.
- Hanson, R. K., & Morton-Bourgon, K. (2004). *Predictors of sexual recidivism: An updated meta-analysis*. Ottawa, Ontario, Canada: Ministry of Public Safety and Emergency Preparedness Canada.
- Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*, 119-136.
- Harris, J. A. (1995). Confirmatory factor analysis of the Aggression Questionnaire. *Behavior Research and Therapy, 33*, 991-993.
- Hudson, S. M., & Ward, T. (2000). Interpersonal competency in sex offenders. *Behavior Modification, 24*, 494-527.
- Kaukiainen, A., Björkvist, K., Lagerspetz, K. M. J., Österman, K., & Salmivalli, C., Rothberg, S., & Ahlbom, A. (1999). The relationship between social intelligence, empathy, and different types of aggression. *Aggressive Behavior, 25*, 81-89.
- Kaukiainen, A., Björkvist, K., Österman, K., & Lagerspetz, K. M. J. (1996). Social intelligence and empathy as antecedents of different types of aggression. In C. F. Ferris & T. Grisson (Eds.), *Understanding aggressive behavior in children* (pp. 364-366). New York: New York Academy of Sciences.

- Kaukiainen, A., Björkvist, K., Österman, K., Lagerspetz, K. M. J., & Forsblom, S. (1995a). *Peer-estimated Social Intelligence (PESI)*. Turku, Finland: Department of Psychology, University of Turku and Vasa, Finland: Department of Social Sciences, Åbo Akademi University.
- Kaukiainen, A., Björkvist, K., Österman, K., Lagerspetz, K. M. J., & Forsblom, S. (1995b). *Peer-estimated Empathy (PEE)*. Turku, Finland: Department of Psychology, University of Turku and Vasa, Finland: Department of Social Sciences, Åbo Akademi University.
- Lipton, D. N., McDonel, E. C., & McFall, R. M. (1987). Heterosocial perceptions in rapists. *Journal of Consulting and Clinical Psychology, 55*, 17-21.
- Lisak, D., & Ivan, C. (1995). Deficits in intimacy and empathy in sexually aggressive men. *Journal of Interpersonal Violence, 10*, 296-308.
- Malamuth, N.M, & Brown, L. M. (1994). Sexually aggressive men's perceptions of women's communication. *Journal of Personality and Social Psychology, 67*, 699-712.
- Marlowe, H. A. (1986). Social intelligence: Evidence for multidimensionality and construct independence. *Journal of Educational Psychology, 78*, 52-58.
- Marolla, J., & Scully, D. (1986). Attitudes toward women, violence, and rape: A comparison of convicted rapists and other felons. *Deviant Behavior, 7*, 337-355.
- Marshall, W. L. (1993). The role of attachment, intimacy, and loneliness in the etiology and maintenance of sexual offending. *Sexual and Marital Therapy, 8*, 109-121.
- Marshall, W. L., Anderson, D. A., & Fernandez, Y. M. (1999). *Cognitive behavioral treatment of sexual offenders*. New York: John Wiley & Sons.

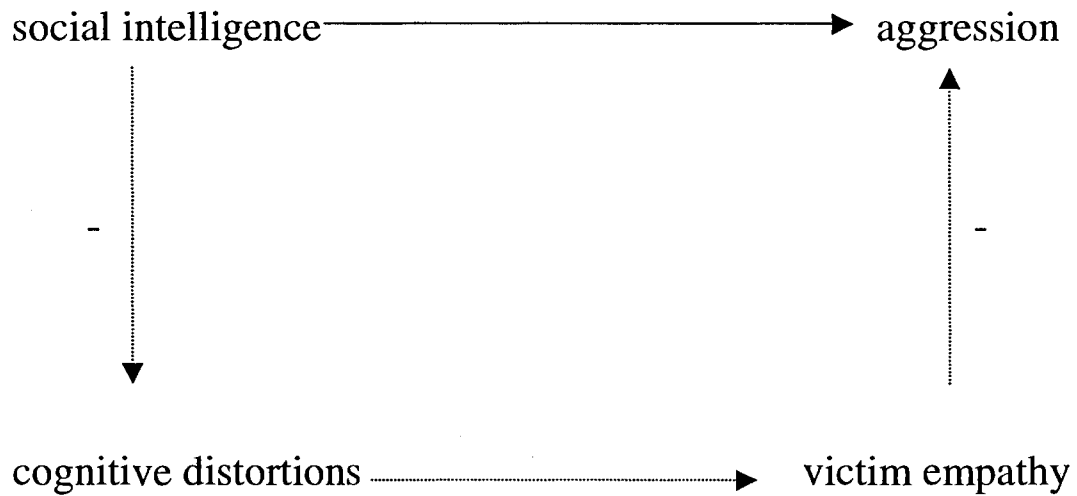
- Marshall, W. L. & Barbaree, H. E. (1984). Disorders of personality, impulse, and adjustment. In S. M. Turner & M. Hersen (Eds.), *Adult psychopathology: A behavioral perspective* (pp. 406-449). New York: John Wiley & Sons.
- Marshall, W. L., & Barbaree, H. E. (1990). An integrated theory of the etiology of sexual offending. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offender* (pp.257-275). New York: Plenum Press.
- Marshall, W. L., Barbaree, H. E., & Fernandez, Y. M. (1995). Some aspects of social competence in sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 7, 113-127.
- Marshall, W. L., Serran, G. A., & Cortoni, F. A. (2000). Childhood attachments in child molesters. *Sexual Abuse: A Journal of Research and Treatment*, 12, 17-26.
- Marshall, W. L., Hamilton, K., & Fernandez, Y. M. (1998). Empathy deficits and cognitive distortions in child molesters. *Sexual Abuse: A Journal of Research and Treatment*, 13, 123-131.
- Marshall, W. L., Hudson, S. M., Jones, R., & Fernandez, Y. M. (1995). Empathy in sex offenders. *Clinical Psychology Review*, 15, 99-113.
- Marshall, W.L., Jones, R., Hudson, S.M., & McDonald, E. (1993). Generalized empathy in child molesters. *Journal of Child Sexual Abuse*, 2, 61-68.
- Marshall, W. L., & Laws, D. R. (2003). A brief history of behavioural and cognitive-behavioral approaches to sexual offender treatment: Part 2. The modern era. *Sexual Abuse: A Journal of Research and Treatment*, 15, 93-120.

- Marshall, W. L., & Marshall, L. E. (2000). The origins of sexual offending. *Trauma, Violence, and Abuse, 1*, 250-263.
- Marshall, W. L., Marshall, L. E., Serran, G. A., & Fernandez, Y. M. (2006). *Treating sexual offenders: An integrated approach*. New York: Routledge.
- Marshall, W. L., & Mazzucco, A. (1995). Self-esteem and parental attachments in child molesters. *Sexual Abuse: A Journal of Research and Treatment, 7*, 279-286.
- Marshall, W. L., & Moulden, H. M. (2001). Hostility toward women and victim empathy in rapists. *Sexual Abuse: A Journal of Research and Treatment, 13*, 249-255.
- Marshall, W.L., O'Sullivan, C., & Fernandez, Y.M. (1996). The enhancement of victim empathy among incarcerated child molesters. *Legal and Criminological Psychology, 1*, 95-102.
- Marshall, W. L., & Serin, R. (1997). Personality disorders. In S. M. Turner & M. Hersen, (Eds.), *Adult psychopathology: A behavioral perspective* (pp. 508-543). New York: John Wiley & Sons.
- McFall, R. M. (1990). The enhancement of social skills: An information processing analysis. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offenders* (pp. 311-330). New York: Plenum.
- Miller, P. A., & Eisenberg, N. (1988). The relationship of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin, 103*, 324-344.
- Moore, B. S. (1990). The origins and development of empathy. *Motivation and Emotion, 14*, 75-79.

- Moulden, H. M., & Marshall, W.L., (2001). *Social intelligence, empathy, and aggression in sexual offenders*. Queen's University, Kingston, Ontario, Canada. Unpublished manuscript.
- Moulden, H. M., & Marshall, W. L. (2002). Empathy, social intelligence, and aggression. In Y. M. Fernandez (Ed.), *In their shoes: Examining the issue of empathy and its place in the treatment of offenders* (pp.53-72). Oklahoma City, OK: Wood and Barnes Publishing.
- Murphy, W. D. (1990). Assessment and modification of cognitive distortions in sex offenders. In W. L. Marshall, D. R. Laws, & H.E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offender* (pp. 331-342). New York: Plenum Press.
- Nugent, P. M. & Kroner, D. G. (1996). Denial, response styles, and admittance of offenses among child molesters and rapists. *Journal of Interpersonal Violence*, *11*, 475-486.
- Nunes, K. L., Firestone, F., & Baldwin, M. W. (2007). Indirect assessment of cognitions of child sexual abusers with the Implicit Associations Test. *Criminal Justice & Behavior*, *34*, 454-475.
- O'Sullivan, M. & Guilford, J. P. (1976). *Four Factor Tests of Social Intelligence: Manual of instructions and interpretations*. Orange, CA: Sheridan Psychological Services.
- Overholser, C., & Beck, S. (1986). Multimethod assessment of rapists, child molesters, and three control groups on behavioral and psychological measures. *Journal of Consulting and Clinical Psychology*, *54*, 682-687.

- Paulhus, D. L. (1998). *Paulhus Deception Scales: User's manual*. Toronto: Multi-Health Systems, Inc.
- Preston, D. & Murphy, (1996). *The Empathy Skills Questionnaire*. Kingston, Ontario, Canada. Unpublished manuscript.
- Riggio, R. E., Messamer, J. & Throckmorton, B. (1991). Social and academic intelligence: Conceptually distinct, but overlapping constructs. *Personality and Individual Differences, 12*, 695-702.
- Segal, Z. V., & Marshall, W. L. (1985). Heterosexual social skills in a population of rapists and child molesters. *Journal of Consulting and Clinical Psychology, 53*, 55-63.
- Serin, R. C., Gobeil, R., & Preston, D. L. (2006). *Assessing violent offender treatment needs: The utility of a hypothetical vignette measure*. Submitted for publication.
- Seto, M. (1992). *Victim blame, empathy, and disinhibition of sexual arousal to rape in community males and incarcerated rapists*. Unpublished Masters Thesis, Queen's University, Kingston, Ontario.
- Smallbone, S. W., & Dadds, M. R. (2000). Attachment and coercive sexual behaviour. *Sexual Abuse: A Journal of Research and Treatment, 12*, 3-15.
- Starczyk, K.B., & Marshall, W.L. (2003). Childhood family and personological risk factors for sexual offending. *Aggression and Violent Behavior: A Review Journal, 8*, 93-105.
- Stermac, L. E., & Quinsey, V. L. (1986). Social competence among rapists. *Behavioural Assessment, 8*, 171-185.

- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4<sup>th</sup> ed.). Toronto: Allyn and Bacon.
- Thorndike, E. L. (1920). Intelligence and its use. *Harper's Magazine*, *140*, 227-235.
- Tierney, D. W., & McCabe, M. P. (2001). An evaluation of self-report measures of cognitive distortions and empathy among Australian sex offenders. *Archives of Sexual Behavior*, *30* 495-519.
- Vernon, P. E. (1933). Some characteristics of the good judge of personality. *Journal of Social Psychology*, *4*, 42-57.
- Ward, T., Hudson, S. M., Johnston, L., & Marshall, W. L. (1997). Cognitive distortions in sex offenders: An integrative view. *Clinical Psychology Review*, *17*, 479-507.
- Ward, T., & Keenan, T. (1999). Child molesters' implicit theories. *Journal of Interpersonal Violence*, *14*, 821-838.
- Ward, T., & Keenan, T., & Hudson, S. M. (2000). Understanding cognitive, affective, and intimacy deficits in sexual offenders: A developmental perspective. *Aggression and Violent Behavior*, *5*, 41-62.
- Ward, T., & Siegert, R. J. (2002). Toward a comprehensive theory of child sexual abuse: A knitting perspective. *Psychology, Crime, & Law*, *8*, 319-351.
- William, T. Y., Boyd, J. C., Cascardi, M. A., & Poythress, N. (1996). Factor structure and convergent validity of the Aggression Questionnaire in an offender population. *Psychological Assessment*, *8*, 398-403.



*Figure 1:* Illustration of relationship between social intelligence, cognitive distortions, victim empathy and aggression in child molesters based on proposed path analysis. The route is denoted by a line, and the arrow indicates the theoretical direction of the relationship. The direction of the relationship is indicated by the plus or minus sign. The direct route is identified with a solid line, and the proposed indirect route, through cognitive distortions and victim empathy, is expressed with the dotted line.

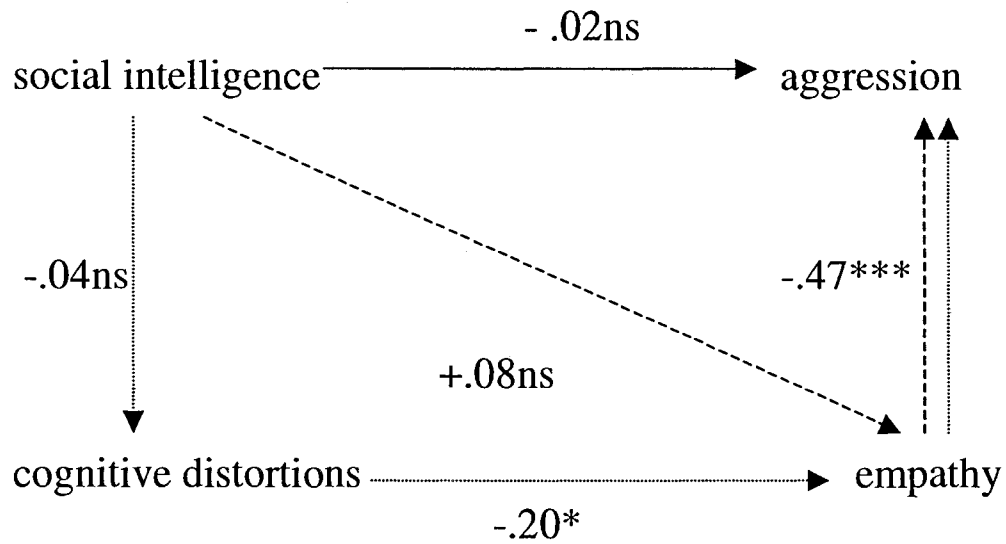


Figure 2. Direct and indirect paths between social intelligence, cognitive distortions, empathy, and aggression in child molesters. The direct route is identified with a solid line, and the proposed indirect route, through cognitive distortions and victim empathy, is expressed with the dotted line. Another indirect was also examined, which was based on the model of aggression proposed by Björkvist, Österman, and Kaukiainen (2000) in which social intelligence is related to aggression through empathy.

Note:  $\longrightarrow$  Direct route;  $-----\longrightarrow$  Indirect route 1;  $\cdots\longrightarrow$  Indirect route 2

Direct route: SI  $\longrightarrow$  AG =  $-.02$

Indirect 1: SI  $-----\longrightarrow$  VE  $-----\longrightarrow$  AG =  $.08 \times -.47 = -0.04$

Indirect 2: SI  $\cdots\longrightarrow$  CD  $\cdots\longrightarrow$  VE  $\cdots\longrightarrow$  AG =  $-.04 \times -.20 \times -.47 = -0.004$

\* $p < .10$ , \*\* $p < .05$ , \*\*\* $p < .01$

Table 1

*Description of Participants*

|                     | ICM(a)<br>(52) | ECM(b)<br>(70) | NSO(c)<br>(31) | CNO(d)<br>(30) |        |             |       |          |             |  |
|---------------------|----------------|----------------|----------------|----------------|--------|-------------|-------|----------|-------------|--|
|                     | M(SD)/%        | M(SD)/%        | M(SD)/%        | M(SD)/%        | df     | F/ $\chi^2$ | p     | $\eta^2$ | Comparisons |  |
| Age                 | 45.83 (9.73)   | 45.14 (13.81)  | 34.42 (7.69)   | 39.30 (12.82)  | 3, 179 | 8.26        | <.001 | .12      | a,b>c       |  |
| Education           | 2.54 (0.73)    | 2.59 (0.81)    | 2.55 (0.77)    | 3.60 (1.00)    | 3, 179 | 13.61       | <.001 | .19      | a,b,c<d     |  |
| Employed at Offence |                |                |                |                |        |             |       |          |             |  |
| Yes                 | 80.8           | 81.4           | 58.1           | -              | 2      | 7.33        | .026  | .05      | a,b>c       |  |
| No                  | 19.2           | 18.6           | 41.9           | -              |        |             |       |          |             |  |
| Marital Status      |                |                |                |                |        |             |       |          |             |  |
| Married             | 86.5           | 40             | 38.7           | -              | 2      | 30.64       | <.001 | .34      | a>b,c       |  |
| Unmarried           | 13.5           | 60             | 61.3           | -              |        |             |       |          |             |  |

Table 1 continued on next page.

Table 1 continued.

|                              | ICM(a)<br>(52) | ECM(b)<br>(70) | NSO(c)<br>(31) | CNO(d)<br>(30) |        |             |                 |          |             |
|------------------------------|----------------|----------------|----------------|----------------|--------|-------------|-----------------|----------|-------------|
|                              | M(SD)/%        | M(SD)/%        | M(SD)/%        | M(SD)/%        | df     | F/ $\chi^2$ | p               | $\eta^2$ | Comparisons |
| <b>No. Prior Charges</b>     |                |                |                |                |        |             |                 |          |             |
| Sexual                       | .44 (1.02)     | .84 (1.56)     | 0              | -              | 2, 150 | 5.44        | <b>.005</b>     | .07      | a,b>c       |
| Violent                      | .77 (1.54)     | .89 (1.83)     | 1.81 (2.10)    | -              | 2, 150 | 3.66        | <b>.028</b>     | .05      | a,b<c       |
| General                      | 1.63 (3.77)    | 1.20 (3.26)    | 6.06 (7.21)    | -              | 2, 150 | 13.58       | <b>&lt;.001</b> | .15      | a,b<c       |
| <b>No. Prior Convictions</b> |                |                |                |                |        |             |                 |          |             |
| Sexual                       | .62 (1.44)     | 1.30 (2.14)    | 0              | -              | 2, 150 | 6.93        | <b>.001</b>     | .09      | a,b>c       |
| Violent                      | .79 (1.41)     | 1.10 (1.95)    | 4.20 (3.52)    | -              | 2, 150 | 26.94       | <b>&lt;.001</b> | .26      | a,b<c       |
| General                      | 4.80 (9.07)    | 4.87 (8.31)    | 17.10 (14.55)  | -              | 2, 150 | 18.10       | <b>&lt;.001</b> | .19      | a,b<c       |

Table 1 continued on next page.

Table 1 continued.

| Variable          | ICM(a)<br>(52) | ECM(b)<br>(70) | NSO(c)<br>(31) | CNO(d)<br>(30) | $M(SD)\%$ | $M(SD)\%$ | $M(SD)\%$ | $M(SD)\%$ | $F$ or $\chi^2$ | $p$   | $\eta^2$        | Comparisons |   |
|-------------------|----------------|----------------|----------------|----------------|-----------|-----------|-----------|-----------|-----------------|-------|-----------------|-------------|---|
| Sentence (months) | 63.65 (55.75)  | 81.87 (85.99)  | 83.52 (90.17)  | -              | -         | -         | -         | -         | 2, 150          | .994  | .373            | .01         | - |
| No. of Victims    | 1.6 (0.96)     | 2.17 (1.60)    | -              | -              | -         | -         | -         | -         | 1, 120          | 5.33  | <b>.023</b>     | .04         | - |
| Victim Age        | 10.46 (3.11)   | 11.58 (2.68)   | -              | -              | -         | -         | -         | -         | 1, 120          | 4.61  | <b>.034</b>     | .04         | - |
| Victim Gender     |                |                |                |                |           |           |           |           | 2               | 7.48  | <b>.024</b>     | .06         | - |
| Male              | 11.5           | 31.4           | -              | -              | -         | -         | -         | -         |                 |       |                 |             |   |
| Female            | 80.8           | 58.6           | -              | -              | -         | -         | -         | -         |                 |       |                 |             |   |
| Both              | 7.7            | 10.0           | -              | -              | -         | -         | -         | -         |                 |       |                 |             |   |
| RRASOR            | 1.10 (1.22)    | 2.43 (1.40)    | -              | -              | -         | -         | -         | -         | 1, 119          | 29.65 | <b>&lt;.001</b> | .20         | - |

*Note:* ICM = Intrafamilial child molesters; ECM = Extrafamilial Child Molesters; NSO = Nonsexual Offenders; CNO = Community

Nonoffenders, RRASOR = Rapid Risk Assessment of Sexual Offence Recidivism; significant p values appear in bold type.

Table 2

*Collapsed Group Differences for Demographic Information*

|                   | CM<br>(122)    | NCM<br>(61)    |           |                      |          |          |
|-------------------|----------------|----------------|-----------|----------------------|----------|----------|
|                   | <i>M(SD)/%</i> | <i>M(SD)/%</i> | <i>df</i> | <i>F</i> or $\chi^2$ | <i>p</i> | $\eta^2$ |
| Age               | 45.43 (12.20)  | 36.82 (10.73)  | 1, 181    | 21.94                | <.001    | .12      |
| Education         | 2.57 (0.77)    | 3.07 (1.03)    | 1, 181    | 13.56                | <.001    | .07      |
| Employment        |                |                | 4         | 5.89                 | .208     | .03      |
| Unemployed        | 14.8           | 21.3           |           |                      |          |          |
| Student           | 0              | 1.6            |           |                      |          |          |
| Unskilled         | 60.7           | 57.4           |           |                      |          |          |
| Skilled           | 24.6           | 18.0           |           |                      |          |          |
| Professional      | 0              | 1.6            |           |                      |          |          |
| Martial Status    |                |                |           |                      |          |          |
| Never             | 22.1           | 35.5           | 2         | 4.52                 | .104     | .03      |
| Single            | 18.0           | 25.8           |           |                      |          |          |
| CL/Married        | 59.8           | 38.7           |           |                      |          |          |
| Sep/Div           | 0              | 0              |           |                      |          |          |
| Widowed           | 0              | 0              |           |                      |          |          |
| Sentence (months) | 74.11 (74.89)  | 83.52 (90.17)  | 1, 151    | .358                 | .550     | <.01     |

Table 2 continued on next page.

Table 2 continued.

|                              | CM<br>(122)    | NCM<br>(61)    |           |                      |                 |          |
|------------------------------|----------------|----------------|-----------|----------------------|-----------------|----------|
|                              | <i>M(SD)/%</i> | <i>M(SD)/%</i> | <i>df</i> | <i>F</i> or $\chi^2$ | <i>p</i>        | $\eta^2$ |
| <b>No. Prior Charges</b>     |                |                |           |                      |                 |          |
| Sexual                       | 1.01 (1.90)    | 0.00 (0.00)    | 1, 151    | 8.68                 | <b>.004</b>     | .05      |
| Violent                      | 0.94 (1.74)    | 4.19 (3.52)    | 1, 151    | 53.64                | <b>&lt;.001</b> | .05      |
| General                      | 4.84 (8.60)    | 17.06 (14.55)  | 1, 151    | 36.41                | <b>&lt;.001</b> | .15      |
| <b>No. Prior Convictions</b> |                |                |           |                      |                 |          |
| Sexual                       | 0.67 (1.36)    | 0.00 (0.00)    | 1, 151    | 7.50                 | <b>.007</b>     | .05      |
| Violent                      | 0.84 (1.71)    | 1.81 (2.10)    | 1, 151    | 7.24                 | <b>.008</b>     | .26      |
| General                      | 1.39 (3.48)    | 6.06 (7.21)    | 1, 151    | 27.00                | <b>&lt;.001</b> | .19      |

*Note.* CM = Child Molesters, NCM = Non Child Molesters

Table 3

*Group Differences (ANOVAs) on Measures of Social Intelligence, Empathy, Cognitive Distortions, and Aggression*

|                            | ICM(a)<br>(52) | ECM(b)<br>(70) | NSO(c)<br>(31) | CNO(d)<br>(30) | <i>M</i> (SD) | <i>M</i> (SD) | <i>M</i> (SD) | <i>M</i> (SD) | <i>F</i> | <i>p</i> | $\eta^2$ | Comparisons |
|----------------------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------|----------|----------|-------------|
| <b>Social Intelligence</b> |                |                |                |                |               |               |               |               |          |          |          |             |
| SIM-AV                     | 30.63 (4.70)   | 29.70 (5.72)   | 32.19 (5.23)   | 34.04 (4.53)   | 3, 180        | 5.76          | .001          | .06           | b<d      |          |          |             |
| FTSI                       | 54.40 (16.21)  | 58.04 (16.72)  | 54.32 (15.86)  | 63.84 (18.12)  | 3, 180        | 2.48          | .062          | .01           |          |          |          |             |
| <b>Empathy</b>             |                |                |                |                |               |               |               |               |          |          |          |             |
| EM-AV                      | 31.98 (4.95)   | 31.28 (5.81)   | 32.07 (5.74)   | 32.10 (3.40)   | 3, 180        | 0.30          | .882          | <.01          |          |          |          |             |
| ESQ-SR                     | 20.97 (9.71)   | 14.75 (7.78)   | 18.76 (13.54)  | 18.75 (7.76)   | 3, 180        | 4.53          | .004          | .07           | a>b      |          |          |             |

Table 3 continued on next page.

Table 3 continued.

|                   | ICM(a)<br>(52) | ECM(b)<br>(70) | NSO(c)<br>(31) | CNO(d)<br>(30) | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>df</i> | <i>F</i> | <i>p</i> | $\eta^2$ | Comparisons |
|-------------------|----------------|----------------|----------------|----------------|------------------------|------------------------|------------------------|------------------------|-----------|----------|----------|----------|-------------|
| <b>CMEM</b>       |                |                |                |                |                        |                        |                        |                        |           |          |          |          |             |
| Scenario 1        | 291.89 (64.07) | 291.34 (61.60) | 269.30 (71.62) | 298.38 (48.48) | 3, 180                 | 1.34                   | .262                   | .02                    |           |          |          |          |             |
| Scenario 2        | 357.04 (70.98) | 359.08 (73.29) | 356.00 (90.76) | 361.12 (55.36) | 3, 180                 | 0.03                   | .992                   | <.01                   |           |          |          |          |             |
| Scenario 3        | 276.66 (93.26) | 336.27 (89.61) | 348.18 (83.36) | -              | 2, 150                 | 6.90                   | .001                   | .10                    |           |          |          |          | a, b<c      |
| <b>Aggression</b> |                |                |                |                |                        |                        |                        |                        |           |          |          |          |             |
| AQ                | 63.91 (17.89)  | 69.74 (17.66)  | 74.47 (22.28)  | 75.75 (20.41)  | 3, 180                 | 3.48                   | .017                   | .05                    |           |          |          |          | a<c,d       |
| DIAS-AV           | 35.14 (10.27)  | 40.80 (13.34)  | 41.32 (10.42)  | 43.81 (13.97)  | 3, 180                 | 3.97                   | .009                   | .05                    |           |          |          |          | a<d         |

Table 3 continued on next page.

Table 3 continued.

|                       | ICM(a)<br>(52) | ECM(b)<br>(70) | NSO(c)<br>(31) | CNO(d)<br>(30) | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>F</i> | <i>p</i> | <i>η</i> <sup>2</sup> | Comparisons |
|-----------------------|----------------|----------------|----------------|----------------|------------------------|------------------------|------------------------|------------------------|----------|----------|-----------------------|-------------|
| Cognitive Distortions |                |                |                |                |                        |                        |                        |                        |          |          |                       |             |
| MS                    | 64.50 (16.72)  | 63.54 (19.14)  | 44.64 (9.24)   | 58.55 (18.20)  | 3, 180                 | 10.73                  | <.001                  | .13                    |          |          |                       | a, b > c    |

Note. ICM = Intrafamilial child molesters; ECM = Extrafamilial Child Molesters; NSO = Nonsexual Offenders; CNO = Community

Nonoffenders

SIM-AV = Social Intelligence Measure-Adult Version, FTSI = Factor Tests of Social Intelligence, EM-AV = Empathy Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-report, CMEM = Child Molester Empathy Measure, AQ = Aggression Questionnaire, DIAS-AV = Direct and Indirect Aggression Scale-Adult Version, MS = Molest Scale

Table 4  
Intercorrelations for Social Functioning and Aggression Variables for Child Molesters

|         | DIAS-AV | AQ    | SIM-AV | FTSI | EM-AV  | ESQ-SR | CMEM-G | CMEM-V | MS     | PDS    |
|---------|---------|-------|--------|------|--------|--------|--------|--------|--------|--------|
| RRASOR  | .04     | .23*  | .00    | .10  | -.05   | -.17   | .09    | .06    | -.08   | -.18*  |
| DIAS-AV | 1       | .64** | .08    | .10  | -.49** | -.29** | .05    | -.08   | .13    | -.54** |
| AQ      |         | 1     | .03    | -.13 | -.35** | -.40** | .17    | .12    | .05    | -.58** |
| SIM-AV  |         |       | 1      | .20* | .35**  | .13    | -.08   | .04    | .02    | -.08   |
| FTSI    |         |       |        | 1    | .02    | .24**  | .05    | .04    | -.07   | -.08   |
| EM-AV   |         |       |        |      | 1      | .30**  | -.02   | .01    | -.10   | .36**  |
| ESQ-SR  |         |       |        |      |        | 1      | .03    | .18    | -.17   | .23*   |
| CMEM-G  |         |       |        |      |        |        | 1      | .54**  | -.14   | -.07   |
| CMEM-V  |         |       |        |      |        |        |        | 1      | -.39** | .04    |
| MS      |         |       |        |      |        |        |        |        | 1      | -.20*  |

Note:  $n = 122$ , \* $p < .05$ , \*\* $p < .01$ .

RRASOR = Rapid Risk Assessment for Sexual Offence Recidivism, DIAS-AV = Direct and Indirect Aggression Scale-Adult Version, AQ =

Aggression Questionnaire, SIM-AV = Social Intelligence Measure-Adult Version, FTSI = Factor Tests of Social Intelligence, EM-AV = Empathy Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-report, CMEM-G = Child Molester Empathy Measure-General

Empathy, CMEM-V = Child Molester Empathy Measure – Victim Empathy, MS = Molest Scale, PDS = Paulhus Deception Scales.

Table 5  
Intercorrelations for Social Functioning and Aggression Variables for Non Child Molesters

|         | DIAS-AV | AQ    | SIM-AV | FTSI | EM-AV | ESQ-SR | CMEM-G | CMEM-V | MS   | PDS   |
|---------|---------|-------|--------|------|-------|--------|--------|--------|------|-------|
| DIAS-AV | 1       | .59** | -.16   | .14  | -.31* | -.12   | .23    | .25    | .18  | -.33* |
| AQ      |         | 1     | -.07   | -.09 | -.25* | -.22   | .14    | -.05   | .07  | -.32* |
| SIM-AV  |         |       | 1      | -.08 | .38** | .29*   | -.02   | -.10   | .06  | .13   |
| FTSI    |         |       |        | 1    | .14   | .19    | .29*   | -.00   | -.03 | -.19  |
| EM-AV   |         |       |        |      | 1     | .43**  | .07    | .01    | .00  | .33*  |
| ESQ-SR  |         |       |        |      |       | 1      | -.03   | .16    | -.11 | .13   |
| CMEM-G  |         |       |        |      |       |        | 1      | -.17   | -.06 | -.21  |
| CMEM-V  |         |       |        |      |       |        |        | 1      | .20  | .04   |
| MS      |         |       |        |      |       |        |        |        | 1    | .02   |

Note:  $n = 61$ , \* $p < .05$ , \*\* $p < .01$ .

DIAS-AV = Direct and Indirect Aggression Scale-Adult Version, AQ = Aggression Questionnaire, SIM-AV = Social Intelligence Measure-Adult Version, FTSI = Factor Tests of Social Intelligence, EM-AV = Empathy Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-report, CMEM-G = Child Molester Empathy Measure-General Empathy, CMEM-V = Child Molester Empathy Measure – Victim Empathy, MS = Molest Scale, PDS = Paulhus Deception Scales.

Table 6

*Levene's Test of Homogeneity of Variance*

|            | <i>df</i> | <i>F</i> | <i>p</i> |
|------------|-----------|----------|----------|
| SIM-AV     | 1, 181    | 0.19     | 0.67     |
| FTSI       | 1, 181    | 1.31     | 0.25     |
| EM-AV      | 1, 181    | 0.66     | 0.42     |
| ESQ-SR     | 1, 181    | 1.63     | 0.20     |
| CMEM       |           |          |          |
| Scenario 1 | 1, 181    | 0        | 0.98     |
| Scenario 2 | 1, 181    | 0.08     | 0.78     |
| Scenario 3 | 1, 151    | 0.07     | 0.80     |
| AQ         | 1, 181    | 0.99     | 0.32     |
| DIAS-AV    | 1, 181    | 0.01     | 0.95     |
| MS         | 1, 181    | 0.83     | 0.37     |

*Note:* SIM-AV = Social Intelligence Measure-Adult Version, FTSI = Factor Tests of Social Intelligence, EM-AV = Empathy Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-report, CMEM = Child Molester Empathy Measure, AQ = Aggression Questionnaire, DIAS-AV = Direct and Indirect Aggression Scale-Adult Version, MS = Molest Scale

Table 7

*Group Differences Between Child Molesters and Non Child Molesters on Social Functioning and Aggression*

|         | CM<br>(122)            | NCM<br>(61)            |           |          |                 |          |
|---------|------------------------|------------------------|-----------|----------|-----------------|----------|
|         | <i>M</i> ( <i>SD</i> ) | <i>M</i> ( <i>SD</i> ) | <i>df</i> | <i>F</i> | <i>p</i>        | $\eta^2$ |
| SIM-AV  | 30.03 (5.30)           | 33.18 (4.96)           | 3, 179    | 8.67     | <b>.004</b>     | .05      |
| FTSI    | 56.49 (16.54)          | 58.52 (17.14)          | 3, 179    | 0.44     | .406            | <.01     |
| EM-AV   | 31.58 (5.45)           | 32.07 (4.71)           | 4, 178    | 1.11     | .293            | <.01     |
| ESQ-SR  | 17.40 (9.15)           | 18.73 (11.03)          | 4, 179    | 0.97     | .326            | <.01     |
| CMEM(1) | 291.58 (62.40)         | 283.84 (62.91)         | 3, 179    | 0.72     | .398            | <.01     |
| CMEM(2) | 358.24 (72.03)         | 359.05 (75.12)         | 3, 179    | 0.00     | .997            | <.01     |
| CMEM(3) | 296.66 (92.16)         | 341.35 (86.55)         | 3, 149    | 12.38    | <b>.002</b>     | .09      |
| DIAS-AV | 38.39 (12.40)          | 42.71 (12.34)          | 4, 178    | 1.47     | .227            | <.01     |
| AQ      | 69.97 (21.11)          | 73.20 (18.99)          | 4, 178    | 0.79     | .374            | <.01     |
| MS      | 63.95 (18.08)          | 51.31 (15.91)          | 4, 178    | 20.84    | <b>&lt;.001</b> | .11      |

Table 7 continued on next page.

Table 7 continued.

---

*Note:* CM = Child Molesters, NCM = Non Child Molesters, SIM-AV= Social Intelligence Measure-Adult Version, FTSI = Factor Tests of Social Intelligence, EM-AV = Empathy Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-report; CMEM = Child Molester Empathy Measure, DIAS- AV = Direct and Indirect Aggression Scale-Adult Version , AQ = Aggression Questionnaire, MS = Molest Scale, PDS = Paulhus Deception Scales  
Covariates for EM-AV, ESQ-SR, DIAS-AV, AQ, and MS: PDS, age, education  
Covariates for CMEM (all scenarios), SIM-AV, and FTSI: age, education

Table 8

*Linear Regression Predicting Sexual Aggression from Social Intelligence, Empathy, and Cognitive Distortions in Child Molesters*

| Predictor Variables | $\beta$ | $t$   | $p$  | $sr^2$ |
|---------------------|---------|-------|------|--------|
| <b>Block 1</b>      |         |       |      |        |
| PDS                 | -.09    | -1.05 | .30  | -.09   |
| Marital status      | -.40    | -4.50 | <.01 | -.39   |
| Victim age          | .15     | 1.68  | .10  | .15    |
| No. of victims      | .08     | .88   | .40  | .08    |
| <b>Block 2</b>      |         |       |      |        |
| SIM-AV              | -.03    | -.27  | .79  | .02    |
| ESQ-SR              | -.08    | -.85  | .40  | -.08   |
| EM-AV               | -.06    | -.56  | .58  | -.05   |
| CMEM-G              | .04     | .36   | .72  | .03    |
| CMEM-V              | .04     | .40   | .71  | .03    |
| MS                  | -.06    | -.56  | .57  | -.05   |

*Note.*  $n = 111$ , Criterion variable: RRASOR= Rapid Risk Assessment for Sexual Offence

Recidivism, Predictor variables: PDS=Paulhus Deception Scale, SIM-AV=Social Intelligence

Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-Report, EM-

AV=Empathy Measure – Adult Version, CMEM-G = Child Molester Empathy Measure-General

Empathy, CMEM-V = Child Molester Empathy Measure-Victim Empathy, MS = Molest Scale

Table 9

*Linear Regression Predicting Sexual Aggression with Limited Covariates in Child Molesters*

| Predictor Variables | $\beta$ | $t$   | $p$  | $sr^2$ |
|---------------------|---------|-------|------|--------|
| Block 1             |         |       |      |        |
| Marital status      | -.40    | -4.57 | <.01 | -.40   |
| Block 2             |         |       |      |        |
| SIM-AV              | -.00    | -.02  | .99  | .00    |
| ESQ-SR              | -.09    | -.95  | .35  | -.08   |
| EM-AV               | -.08    | -.82  | .41  | -.07   |
| CMEM-G              | .05     | .42   | .68  | .04    |
| CMEM-V              | .04     | .31   | .76  | .03    |
| MS                  | -.06    | -.58  | .56  | -.05   |

*Note.*  $n = 111$ , Criterion variable: RRASOR= Rapid Risk Assessment for Sexual Offence Recidivism, Predictor variables: SIM-AV=Social Intelligence Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-Report, EM-AV=Empathy Measure – Adult Version, CMEM-G = Child Molester Empathy Measure-General Empathy, CMEM-V = Child Molester Empathy Measure-Victim Empathy, MS = Molest Scale

Table 10

*Linear Regression Predicting General Aggression from Social Intelligence, Empathy, and Cognitive Distortions in Child Molesters*

| Predictor Variables | $\beta$ | $t$   | $p$  | $sr^2$ |
|---------------------|---------|-------|------|--------|
| <b>Block 1</b>      |         |       |      |        |
| PDS                 | -.51    | -6.30 | <.01 | -.50   |
| Marital status      | -.15    | -1.70 | .09  | -.14   |
| Victim age          | .02     | .23   | .79  | .02    |
| No. of victims      | -.11    | -1.36 | .18  | -.11   |
| RRASOR              | .07     | .79   | .43  | .06    |
| <b>Block 2</b>      |         |       |      |        |
| SIM-AV              | .01     | .11   | .92  | .01    |
| ESQ-SR              | -.33    | -4.15 | <.01 | -.30   |
| EM-AV               | -.10    | -1.14 | .26  | -.08   |
| CMEM-G              | .04     | .48   | .63  | .04    |
| CMEM-V              | .17     | 1.78  | .08  | .13    |
| MS                  | .01     | .14   | .87  | .01    |

*Note.*  $n = 111$ , Criterion variable: AQ = Aggression Questionnaire, Predictor variables: PDS=Paulhus Deception Scale, RRASOR= Rapid Risk Assessment for Sexual Offence Recidivism, SIM-AV=Social Intelligence Measure-Adult Version, ESQ-SR = Empathy Skills

Note for table 10 continued on next page.

Note for table 10 continued.

---

Questionnaire-Self-Report, EM-AV=Empathy Measure – Adult Version, CMEM-G = Child  
Molester Empathy Measure-General Empathy, CMEM-V = Child Molester Empathy Measure-  
Victim Empathy, MS = Molest Scale

---

Table 11

*Linear Regression Predicting General Aggression with Limited Covariates in Child Molesters*

| Predictor Variables | $\beta$ | $t$   | $p$  | $sr^2$ |
|---------------------|---------|-------|------|--------|
| Block 1             |         |       |      |        |
| PDS                 | -.54    | -6.70 | >.01 | -.54   |
| Block 2             |         |       |      |        |
| SIM-AV              | .01     | 0.13  | .90  | .01    |
| ESQ-SR              | -.35    | -4.39 | >.01 | -.32   |
| EM-AV               | -.11    | -1.19 | .24  | -.09   |
| CMEM-G              | .05     | .51   | .62  | .04    |
| CMEM-V              | .15     | 1.56  | .12  | .12    |
| MS                  | -.03    | -.38  | .71  | -.03   |

*Note.*  $n = 111$ , Criterion variable: AQ = Aggression Questionnaire

Predictor variables: PDS=Paulhus Deception Scales, SIM-AV=Social Intelligence Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-Report, EM-AV=Empathy Measure – Adult Version, CMEM-G = Child Molester Empathy Measure-General Empathy, CMEM-V = Child Molester Empathy Measure-Victim Empathy, MS = Molest Scale

Table 12

*Linear Regression Testing Reduced Model to Predict General Aggression in Child Molesters*

| Predictor Variables | $\beta$ | $t$   | $p$  | $sr^2$ |
|---------------------|---------|-------|------|--------|
| Block 1             |         |       |      |        |
| PDS                 | -.54    | -5.70 | <.01 | -.54   |
| Block 2             |         |       |      |        |
| ESQ-SR              | -.34    | -4.37 | <.01 | -.33   |

*Note.*  $n = 111$ , Criterion variable: AQ = Aggression Questionnaire

Predictor variables: PDS=Paulhus Deception Scale, ESQ-SR = Empathy Skills Questionnaire-

Self-Report

Table 13

*Hierarchical Regression Testing Unique Contribution of Cognitive Distortions in Prediction of General Aggression in Child Molesters*

| Predictor Variables | $\beta$ | $t$   | $p$  | $sr^2$ |
|---------------------|---------|-------|------|--------|
| Block 1             |         |       |      |        |
| PDS                 | -.54    | -6.70 | <.01 | -.54   |
| Block 2             |         |       |      |        |
| SIM-AV              | -.03    | -.43  | .67  | -.03   |
| ESQ-SR              | -.36    | -4.69 | <.01 | -.34   |
| CMEM-V              | -.19    | 2.50  | .01  | -.18   |
| Block 3             |         |       |      |        |
| MS                  | -.03    | -.32  | .75  | -.02   |

*Note.*  $n = 111$ , Criterion variable: AQ=Aggression Questionnaire

Predictor variables: PDS=Paulhus Deception Scale, SIM-AV=Social Intelligence Measure-Adult

Version, ESQ-SR = Empathy Skills Questionnaire-Self-Report, CMEM-V = Child Molester

Empathy Measure-Victim Empathy, MS = Molest Scale

Table 14

*Series of Regressions for Path Analysis Evaluating Relative Routes to Aggression in Child**Molesters*

| Predictor Variables   | $\beta$ | $t$   | $p$             |
|-----------------------|---------|-------|-----------------|
| Regression 1 (AQ)     |         |       |                 |
| SIM-AV                | -0.02   | -0.20 | 0.84            |
| ESQ-SR                | -0.47   | -5.33 | <b>&lt;0.01</b> |
| MS                    | 0.004   | 0.42  | 0.97            |
| Regression 2 (ESQ-SR) |         |       |                 |
| SIM-AV                | 0.08    | 0.81  | 0.42            |
| MS                    | -0.20   | -2.12 | <b>0.04</b>     |
| Regression 3 (MS)     |         |       |                 |
| SIM-AV                | -0.04   | -0.42 | 0.68            |

*Note:*  $n = 111$ , Criterion variables in parentheses; SIM-AV = Social Intelligence Measure-Adult Version, ESQ-SR = Empathy Skills Questionnaire-Self-report, MS = Molest Scale

## Appendix A

Consent Form Presented to Nonincarcerated/Nonoffender Participants

---

Prospective participant,

You have been requested to participate in the research conducted by Heather Moulden under the supervision of Dr. P. Firestone in fulfillment of a doctorate degree in Clinical Psychology at the University of Ottawa. The purpose of the study is to examine how social competence, empathy, and thinking patterns are related to aggressive behaviour. You will be asked to complete a number of questionnaires that require you to answer questions about your own thoughts, emotions, and behaviours, and that completion of the questionnaires will take approximately one and a half hours. **In completing the questionnaires, you agree to consent in the research study.**

The responses you give will be treated confidentially. You are not required to give your name anywhere. Any future publications or reports of this study will review only data for groups, and cannot identify you personally as a participant.

You may find this activity tiring or boring, and some of the material offensive or disturbing. You are free to withdraw from this study at any time without penalty, and you will be compensated \$10.00 for participating, even if you decide to withdraw from the study.

The data collected will be kept in a secure manner at the University of Ottawa for a period of 10 years after time of publication in a locked filing cabinet and a password-protected computer, with any identifying information removed, and will be accessible only to the researchers working on this and follow-up research.

Any information about your rights as a research participant may be addressed to **Protocol Officers for Ethics in Research, 550 Cumberland Street, Room 159, (613) 562-5841 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca)** . Please keep this information form for your records.

If you have any questions about the conduct of the research project, you may contact the researcher, Heather Moulden at \_\_\_\_\_ r her supervisor, Dr. Philip Firestone at (613) 562-5800, ext: 4444. If participation in this study has caused you distress, please contact **Telephone Aid Line Kingston (TALK)** at 544-1771 or the **Ottawa Distress Centre** at (613) 238-3311.

*This research is funded by the Social Sciences and Humanities Research Council.*

## Appendix B

Consent Form Presented to Incarcerated Participants

---

I, \_\_\_\_\_, (please print) agree to participate in the research conducted by Heather Moulden under the supervision of Dr. P. Firestone in fulfillment of a doctorate degree in Clinical Psychology at the University of Ottawa. I understand that the purpose of the study is to examine how social competence, empathy, and thinking patterns are related to aggressive behaviour. I understand that I will be asked to complete a number of questionnaires that require me to answer questions about my own thoughts, emotions, and behaviours, and that completion of the questionnaires will take approximately one and a half hours. I understand that I may find this activity tiring or boring and that I may find some of the material offensive or disturbing. I understand that I am free to withdraw from this study at any time without penalty. Also, my decision to participate or not will have no influence on parole, my therapy, or treatment within the institution.

I understand that the responses I give will be treated confidentially. My name, FPS, and other identifying information will not appear on the responses I provide so as to protect my confidentiality. Any future publications or reports of this study will review only data for groups, and will not identify me personally as a participant. Further, my answers will not be shared with any correctional staff, and they will not appear on my CSC files. I understand that this information will not be used to identify myself, or influence my parole, or prison term.

I understand that the researcher will have access to my official records for the purpose of determining if a relationship exists between file information and the responses I have provided (e.g. offense history, age). I understand that the data collected will be kept in a secure manner at

the University of Ottawa for a period of 10 years after time of publication in a locked filing cabinet and a password-protected computer, with any identifying information removed, and will be accessible only to the researchers working on this and follow-up research.

Any information about my rights as a research participant may be addressed to **Protocol Officers for Ethics in Research, 550 Cumberland Street, Room 159, (613) 562-5841** or [ethics@uottawa.ca](mailto:ethics@uottawa.ca). There are two copies of the consent form, one of which I may keep for my records. If I have any questions about the conduct of the research project, I may contact the researcher, Heather Moulden at ( ) or her supervisor, Dr. Philip Firestone at (613) 562-5800, ext: 4444.

*This research is funded by the Social Sciences and Humanities Research Council.*

Researcher's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Participant's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Code: \_\_\_\_\_

Appendix C

Certification of Ethics Approval: University of Ottawa

---

SOCIAL SCIENCES AND HUMANITIES RESEARCH ETHICS BOARD CERTIFICATION  
OF ETHICAL APPROVAL

This is to certify that the University of Ottawa Social Sciences and Humanities Research Ethics Board (REB) has examined the application for ethical approval for the research project Social Competence and Sexual Aggression: Social Intelligence, Cognitive Distortions, and Victim Empathy in Men who Sexually Offend Against Children (File# 01-05-01) submitted by Heather Moulden, and supervised by Philip Firestone of the School of Psychology. The members of the REB found that the research project met appropriate ethical standards as outlined in the Tri-Council Policy statement and in the Procedures of the University of Ottawa Research Ethics Boards, and accordingly gave the research project a Category Ia (Approval). This certification is valid for one year from the date indicated below.

March 7, 2005

\_\_\_\_\_  
Catherine Paquet

Date

Protocol Officer for Ethics in Research

For the Chair of the Social Sciences and Humanities REB

Richard Clément

---

Appendix D

Approval to Conduct Research from the Correctional Service of Canada

---

Please be advised that the Regional Deputy Commissioner has approved the following research project:

RESEARCH PROPOSAL: Social competence and sexual aggression: Social intelligence, cognitive distortions and victim empathy in child molesters

RESEARCHER: Heather Moulden, University of Ottawa

SITES IDENTIFIED FOR DATA COLLECTION: Kingston Penitentiary, Regional Treatment Centre-Ontario, Millhaven, Warkworth, Bath, and Pittsburgh Institutions.

The study group includes sexual and nonsexual offenders who consent to participate. The purpose of the study is to determine if differences exist between incarcerated sexual offenders and incarcerated nonsexual offenders on indicators of social intelligence. A second purpose is to examine how elements of social functioning predict aggression in sexual offenders. Data collection will require participants to complete a number of questionnaires, and provide consent to the researcher to review OMS and file information. Participation in the study can take up to two hours.

The researcher will contact Chiefs of Psychology/Program Directors directly to coordinate data collection.

The researcher has received security clearance to conduct this research project.

Appendix E

Sample Newspaper Recruitment Posting

---

Newspaper Advertisement to be placed in the *Employment or Wanted* section of the Kingston Whig-Standard and Ottawa Citizen.

Research Participants

English-speaking adult (18+ years old) men who are interested in participating in a research study through the University of Ottawa looking at how thoughts, and feelings, affect behaviour. You would be required to attend an office in downtown Kingston (at the University of Ottawa) and complete a number of questionnaires. Your participation in the study will take approximately one and a half hours of your time. You will be paid \$10.00 for your participation. If you are interested or would like more information please contact:

between 9-5, Monday to Friday.

Appendix F

Demographic Information Form

---

Age: \_\_\_\_\_

Occupation: Please describe the last paid position you held

---

Education: Please refer to the last grade level completed, or any post secondary education

---

---

## Appendix G

Sexual Behaviour Screening Form

The following questions are asked only to make certain that there are no inadvertent differences between the groups in this research study. Due to the sensitive nature of the information asked, and in order to ensure that you answer as truthfully as possible, your confidentiality is guaranteed. Your name will never appear in connection with the answers you have provided.

Since the age of 18 years old, have you been charged or convicted of any offense? Please circle one.

**Yes**            **No**

If yes, please list the charges and indicated whether or not you were convicted.

| Charge   | Conviction |
|----------|------------|
| 1. _____ | yes / no   |
| 2. _____ | yes / no   |
| 3. _____ | yes / no   |
| 4. _____ | yes / no   |
| 5. _____ | yes / no   |

\*if you require more space, please continue your list on the back of this paper

Since the age of 18 years old, have you committed any offenses that you were not charged for?

Please circle one.

**Yes**            **No**

If yes, how many offenses? \_\_\_\_\_

Please circle the types of offenses. Circle all that apply.

**Theft**      **Fraud**      **Arson**      **Treason**      **Assault**      **Rape**

**Drugs**      **Homicide**      **Speeding**      **Sexual offenses**

Other (please specify) \_\_\_\_\_

Other (please specify) \_\_\_\_\_

Please circle either “yes” or “no” to the following questions.

Since the age of 18 years old, have you...

felt concerned that your sexual desires, fantasies, or behaviours were not normal or harmful?

Yes      No

ever sought professional help for a sexual problem (excluding impotence or infertility)?

Yes      No

felt like you wanted to have sexual activity with a boy or girl of 14 years old or younger?

Yes      No

touched a boy or girl of 14 years old or younger sexually on their private parts?

Yes      No

been charged/convicted of sexual assault, gross indecency, rape, or sex with a minor?

Yes      No

been charged/convicted of sexual assault, gross indecency, rape, or sex with an adult?

Yes      No

forced (physical or verbal) anyone into any sexual activity without his or her consent?

Yes            No

used attention, privileges, treats, or money to have sexual contact with anyone?

Yes            No

## Appendix H

*Paulhus Deception Scales* (Paulhus, 1998)

---

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

|          |   |               |   |           |
|----------|---|---------------|---|-----------|
| 1        | 2 | 3             | 4 | 5         |
| not true |   | somewhat true |   | very true |

- \_\_\_ 1. My first impression of people usually turns out to be right.
- \_\_\_ 2. It would be hard for me to break any of my bad habits.\*
- \_\_\_ 3. I don't care to know what other people really think of me.
- \_\_\_ 4. I have not always been honest with myself.\*
- \_\_\_ 5. I always know why I like things.
- \_\_\_ 6. When my emotions are aroused, it biases my thinking.\*
- \_\_\_ 7. Once I've made up my mind, other people can seldom change my opinion.
- \_\_\_ 8. I am not a safe driver when I exceed the speed limit.\*
- \_\_\_ 9. I am fully in control of my own fate.
- \_\_\_ 10. It's hard for me to shut off a disturbing thought.\*
- \_\_\_ 11. I never regret my decisions.
- \_\_\_ 12. I sometimes lose out on things because I can't make up my mind soon enough.\*
- \_\_\_ 13. The reason I vote is because my vote can make a difference.
- \_\_\_ 14. My parents were not always fair when they punished me.\*
- \_\_\_ 15. I am a completely rational person.
- \_\_\_ 16. I rarely appreciate criticism.\*

---

|          |   |               |   |           |
|----------|---|---------------|---|-----------|
| 1        | 2 | 3             | 4 | 5         |
| not true |   | somewhat true |   | very true |

- \_\_\_ 17. I am very confident of my judgments.
- \_\_\_ 18. I have sometimes doubted my ability as a lover.\*
- \_\_\_ 19. It's alright with me if some people happen to dislike me.
- \_\_\_ 20. I don't always know the reasons why I do the things I do.\*
- \_\_\_ 21. I sometimes tell lies if I have to.\*
- \_\_\_ 22. I never cover up my mistakes.
- \_\_\_ 23. There have been occasions when I have taken advantage of someone.\*
- \_\_\_ 24. I never swear.
- \_\_\_ 25. I sometimes try to get even rather than forgive and forget.\*
- \_\_\_ 26. I always obey laws, even if I am unlikely to get caught.
- \_\_\_ 27. I have said something bad about a friend behind his or her back.\*
- \_\_\_ 28. When I hear people talking privately, I avoid listening.
- \_\_\_ 29. I have received too much change from a salesperson without telling him or her.\*
- \_\_\_ 30. I always declare everything at customs.
- \_\_\_ 31. When I was young I sometimes stole things.\*
- \_\_\_ 32. I have never dropped litter on the street.
- \_\_\_ 33. I sometimes drive faster than the speed limit.\*
- \_\_\_ 34. I never read sexy books or magazines.
- \_\_\_ 35. I have done things that I don't tell other people about.\*

---

|          |   |               |   |           |
|----------|---|---------------|---|-----------|
| 1        | 2 | 3             | 4 | 5         |
| not true |   | somewhat true |   | very true |

\_\_\_ 36. I never take things that don't belong to me.

\_\_\_ 37. I have taken sick-leave from work or school even though I wasn't really sick.

\_\_\_ 38. I have never damaged a library book or store merchandise without reporting it.

\_\_\_ 39. I have some pretty awful habits.\*

\_\_\_ 40. I don't gossip about others people's business.

\* Items marked with an asterisk are negatively keyed

## Appendix I

*Social Intelligence Measure-Adult Version* (Moulden & Marshall, 2001)

---

Listed below are statements about how people interact with others. Please circle the number that best describes how often these experiences are true for you.

- | 1  | 2      | 3         | 4         | 5      |
|--|--------|-----------|-----------|--------|
| never  | seldom | sometimes | often     | always |
| 1. I easily notice when other people are lying.  |        |           | 1 2 3 4 5 |        |
| 2. I get along well with others.   |        |           | 1 2 3 4 5 |        |
| 3. I find it easy to get along with new people and in new situations.                  |        |           | 1 2 3 4 5 |        |
| 4. I often get my wishes carried out.  |        |           | 1 2 3 4 5 |        |
| 5. I am able to guess the feelings of others, even when they do not want to show them. |        |           | 1 2 3 4 5 |        |
| 6. I am aware of others' weak spots.   |        |           | 1 2 3 4 5 |        |
| 7. I often know how to make other people laugh.  |        |           | 1 2 3 4 5 |        |
| 8. I am able to persuade others to do almost anything.                                 |        |           | 1 2 3 4 5 |        |
| 9. I am able to take advantage of others if I want to.                                 |        |           | 1 2 3 4 5 |        |
| 10. I am able to persuade others to support my views.                                  |        |           | 1 2 3 4 5 |        |

Appendix J

*The Factor Tests of Social Intelligence (O'Sullivan & Guilford, 1976)*

---

The following questionnaire is made up of four sections. Each section includes specific directions for that part. Please indicate your answer for the appropriate item and section on the answer sheet (next page).

You will notice in the following questionnaire that some sections are timed and you are instructed to stop and wait for directions. Please disregard these instructions and continue completing the questionnaire. However, please try to follow the time allowance yourself as closely as possible.

Thank-you.

SCORE .....  
 SCORE .....

SCHOOL OR ORGANIZATION .....

NUMBER OF YEARS OF GRADE OR SCHOOL COMPLETED .....

OTHER INFORMATION .....

TESTS OF  
 SOCIAL INTELLIGENCE

| MISSING CARTOONS |   |   |   |
|------------------|---|---|---|
| 1                | 2 | 3 | 4 |
| 1                | 1 | 2 | 3 |
| 2                | 1 | 2 | 3 |
| 3                | 1 | 2 | 3 |
| 4                | 1 | 2 | 3 |
| 5                | 1 | 2 | 3 |
| 6                | 1 | 2 | 3 |
| 7                | 1 | 2 | 3 |
| 8                | 1 | 2 | 3 |
| 9                | 1 | 2 | 3 |
| 10               | 1 | 2 | 3 |
| 11               | 1 | 2 | 3 |
| 12               | 1 | 2 | 3 |
| 13               | 1 | 2 | 3 |
| 14               | 1 | 2 | 3 |
| 15               | 1 | 2 | 3 |
| 16               | 1 | 2 | 3 |
| 17               | 1 | 2 | 3 |
| 18               | 1 | 2 | 3 |
| 19               | 1 | 2 | 3 |
| 20               | 1 | 2 | 3 |
| 21               | 1 | 2 | 3 |
| 22               | 1 | 2 | 3 |
| 23               | 1 | 2 | 3 |
| 24               | 1 | 2 | 3 |
| 25               | 1 | 2 | 3 |
| 26               | 1 | 2 | 3 |
| 27               | 1 | 2 | 3 |
| 28               | 1 | 2 | 3 |

| SOCIAL TRANSLATIONS |   |   |
|---------------------|---|---|
| 1                   | 2 | 3 |
| 1                   | 1 | 2 |
| 2                   | 1 | 2 |
| 3                   | 1 | 2 |
| 4                   | 1 | 2 |
| 5                   | 1 | 2 |
| 6                   | 1 | 2 |
| 7                   | 1 | 2 |
| 8                   | 1 | 2 |
| 9                   | 1 | 2 |
| 10                  | 1 | 2 |
| 11                  | 1 | 2 |
| 12                  | 1 | 2 |
| 13                  | 1 | 2 |
| 14                  | 1 | 2 |
| 15                  | 1 | 2 |
| 16                  | 1 | 2 |
| 17                  | 1 | 2 |
| 18                  | 1 | 2 |
| 19                  | 1 | 2 |
| 20                  | 1 | 2 |
| 21                  | 1 | 2 |
| 22                  | 1 | 2 |
| 23                  | 1 | 2 |
| 24                  | 1 | 2 |

| EXPRESSION GROUPING |   |   |   |
|---------------------|---|---|---|
| 1                   | 2 | 3 | 4 |
| 1                   | 1 | 2 | 3 |
| 2                   | 1 | 2 | 3 |
| 3                   | 1 | 2 | 3 |
| 4                   | 1 | 2 | 3 |
| 5                   | 1 | 2 | 3 |
| 6                   | 1 | 2 | 3 |
| 7                   | 1 | 2 | 3 |
| 8                   | 1 | 2 | 3 |
| 9                   | 1 | 2 | 3 |
| 10                  | 1 | 2 | 3 |
| 11                  | 1 | 2 | 3 |
| 12                  | 1 | 2 | 3 |
| 13                  | 1 | 2 | 3 |
| 14                  | 1 | 2 | 3 |
| 15                  | 1 | 2 | 3 |
| 16                  | 1 | 2 | 3 |
| 17                  | 1 | 2 | 3 |
| 18                  | 1 | 2 | 3 |
| 19                  | 1 | 2 | 3 |
| 20                  | 1 | 2 | 3 |
| 21                  | 1 | 2 | 3 |
| 22                  | 1 | 2 | 3 |
| 23                  | 1 | 2 | 3 |
| 24                  | 1 | 2 | 3 |
| 25                  | 1 | 2 | 3 |
| 26                  | 1 | 2 | 3 |
| 27                  | 1 | 2 | 3 |
| 28                  | 1 | 2 | 3 |
| 29                  | 1 | 2 | 3 |
| 30                  | 1 | 2 | 3 |

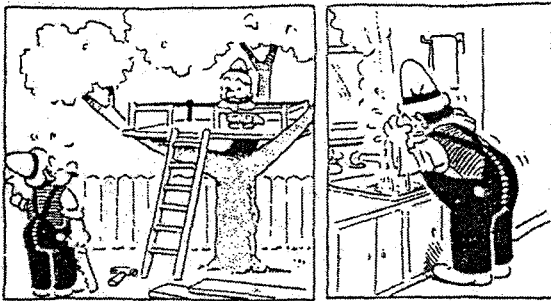
| CARTOON PREDICTIONS |   |   |
|---------------------|---|---|
| 1                   | 2 | 3 |
| 1                   | 1 | 2 |
| 2                   | 1 | 2 |
| 3                   | 1 | 2 |
| 4                   | 1 | 2 |
| 5                   | 1 | 2 |
| 6                   | 1 | 2 |
| 7                   | 1 | 2 |
| 8                   | 1 | 2 |
| 9                   | 1 | 2 |
| 10                  | 1 | 2 |
| 11                  | 1 | 2 |
| 12                  | 1 | 2 |
| 13                  | 1 | 2 |
| 14                  | 1 | 2 |
| 15                  | 1 | 2 |
| 16                  | 1 | 2 |
| 17                  | 1 | 2 |
| 18                  | 1 | 2 |
| 19                  | 1 | 2 |
| 20                  | 1 | 2 |
| 21                  | 1 | 2 |
| 22                  | 1 | 2 |
| 23                  | 1 | 2 |
| 24                  | 1 | 2 |
| 25                  | 1 | 2 |
| 26                  | 1 | 2 |
| 27                  | 1 | 2 |
| 28                  | 1 | 2 |
| 29                  | 1 | 2 |
| 30                  | 1 | 2 |

## MISSING CARTOONS

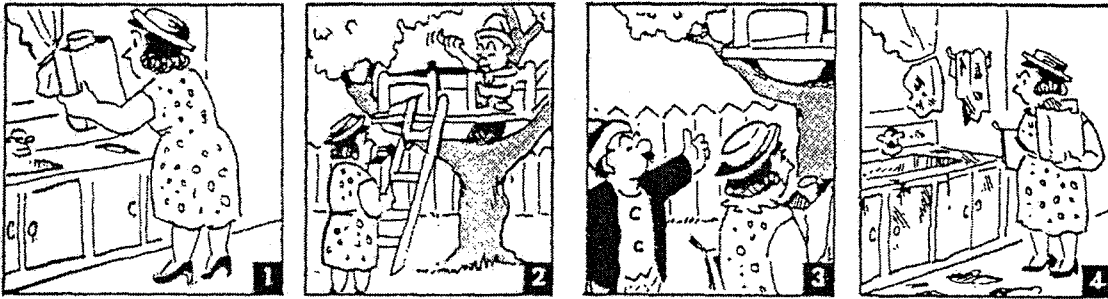
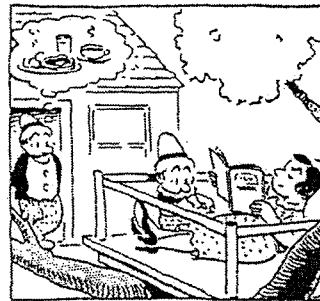
R. deMille, Maureen O'Sullivan and J.P.Guilford

In the "Ferd'nand" cartoon strip below, the third picture is missing. The missing picture is among the four pictures in the second row. If you choose the right picture, the strip will make sense and the feelings and thoughts of the characters will all fit.

Look at sample item 29.



29



29

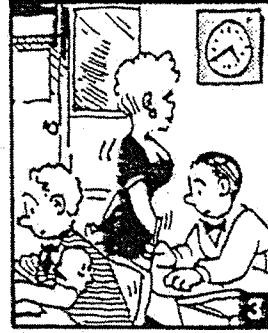
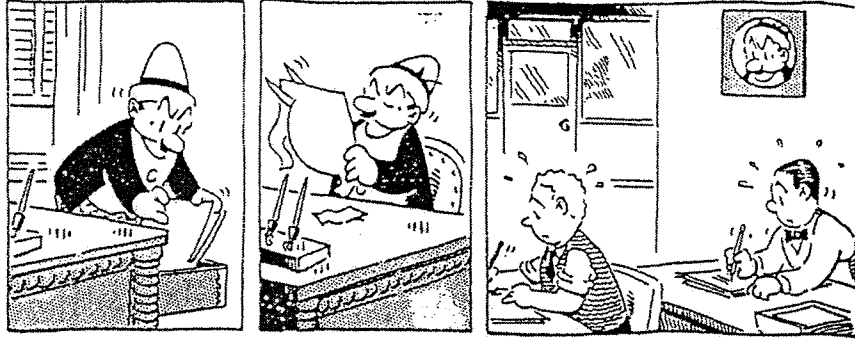
At the end of the story, Ferd'nand is upset and misses his dinner. The little boy is unconcerned. The mother is annoyed and is not making dinner. All these things are happening because Ferd'nand left the kitchen messy, which annoyed Mrs. Ferd'nand. Alternative, then, is the right choice. Pictures 1, 2, and 3 do not complete a series of four pictures that makes sense out of what the people are doing thinking and feeling.

In each item that follows, find the picture that completes the story and blacken the right space for that item on the Scantron answer sheet, starting with item 1.

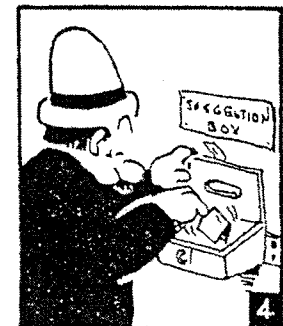
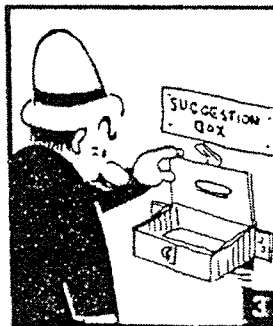
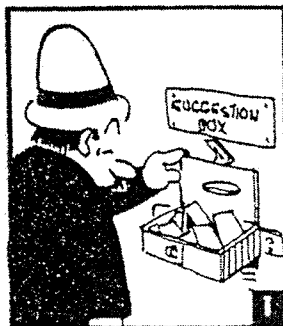
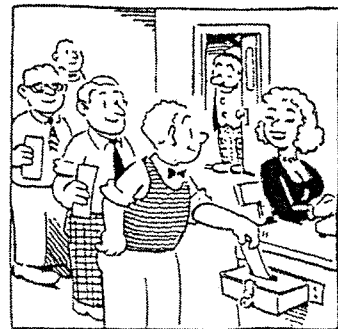
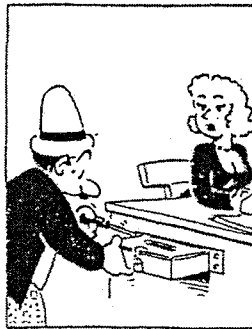
If you have questions, please ask them now.

PART I

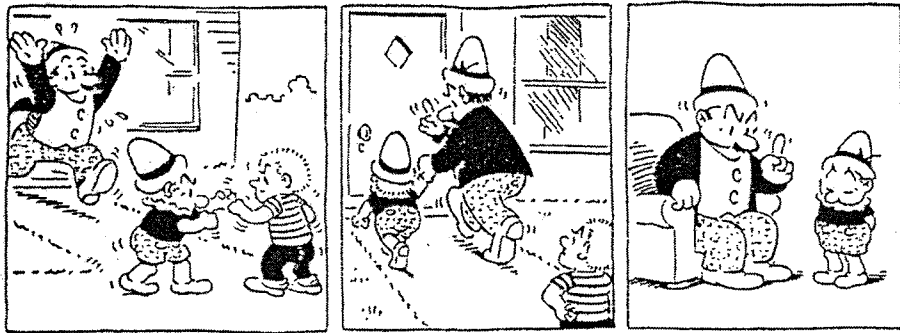
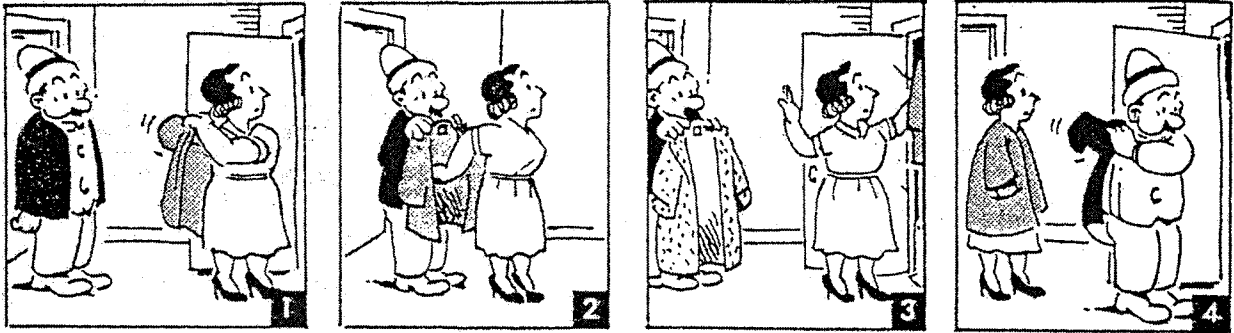
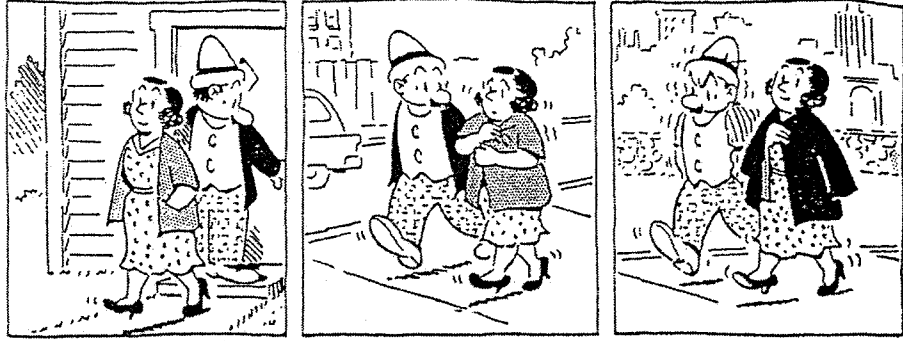
1



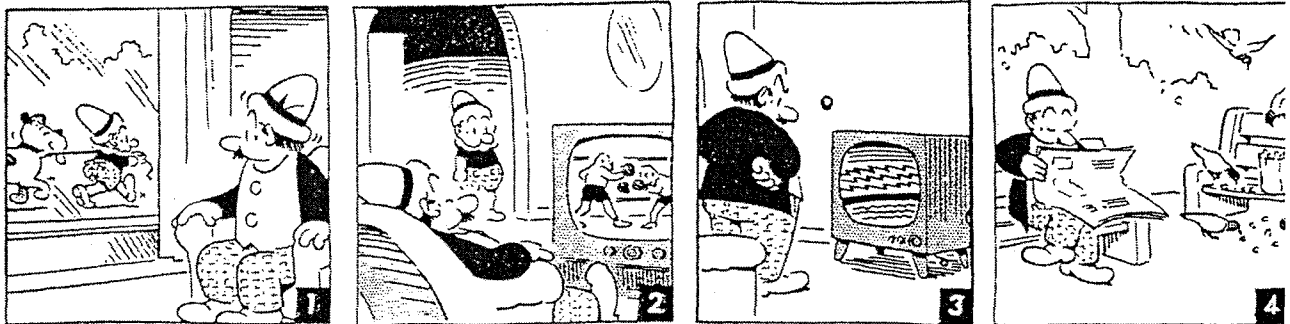
2



3

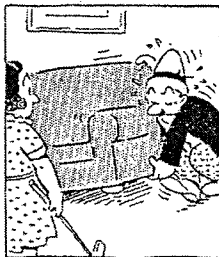
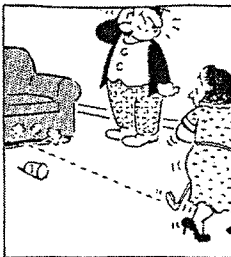
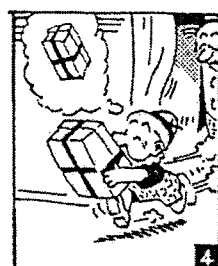
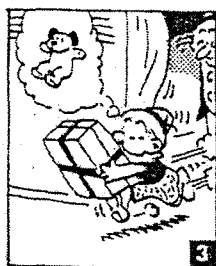
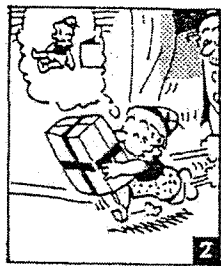
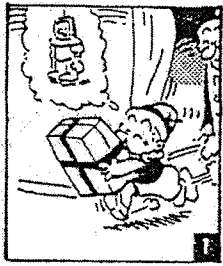
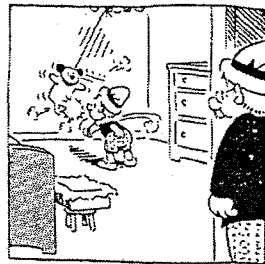


4

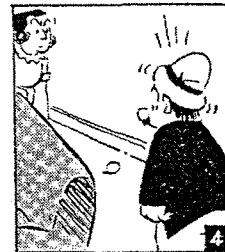
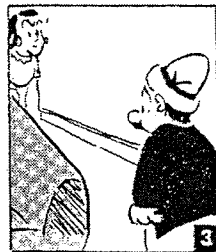
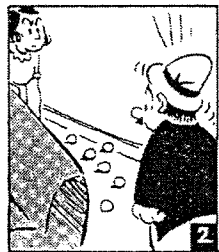
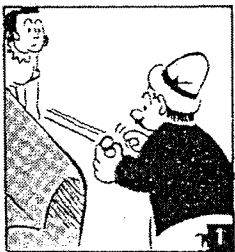




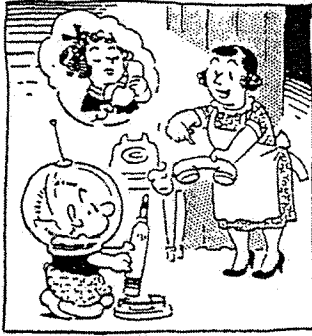
5



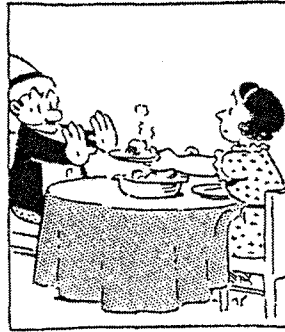
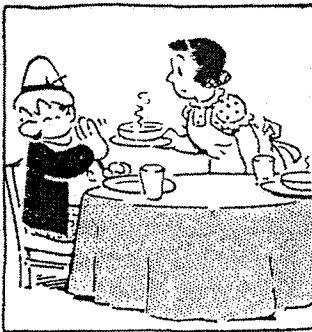
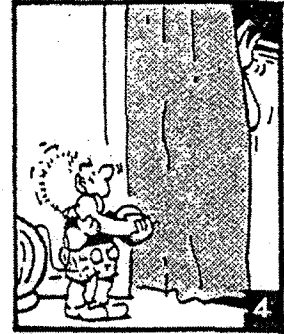
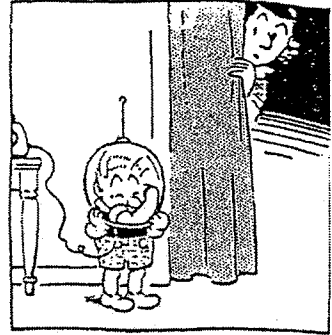
6



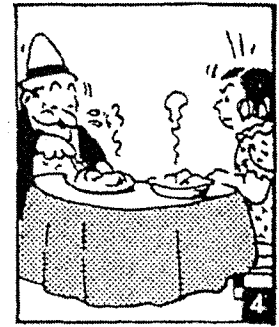
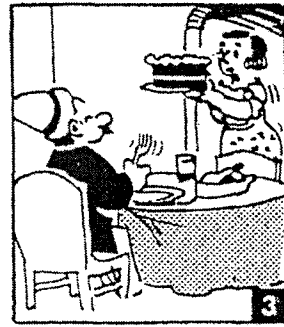
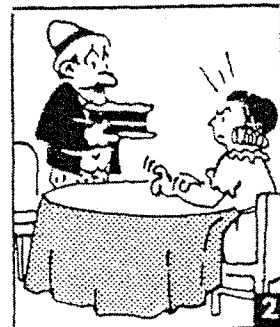
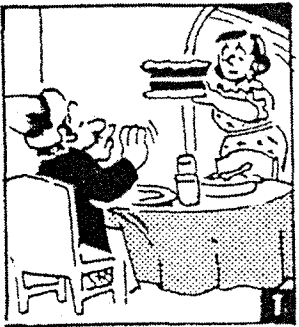
GO ON TO THE NEXT PAGE

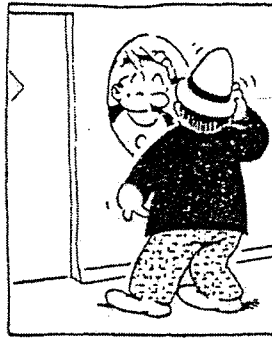
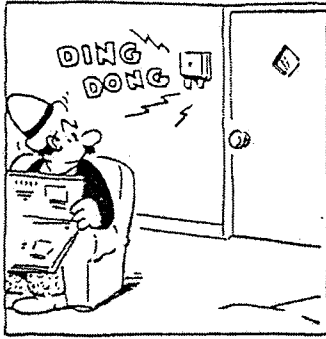


7

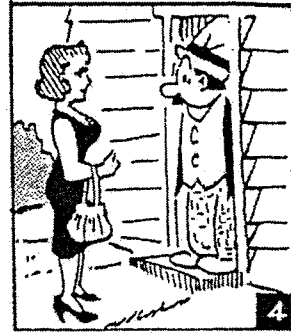
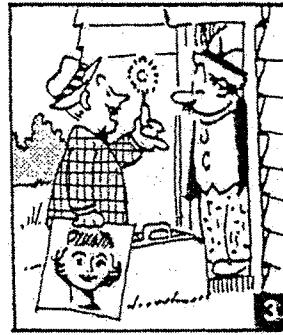
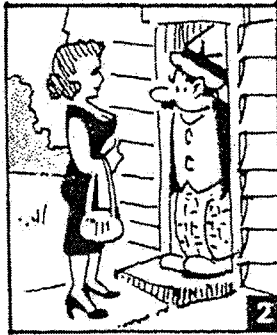


8

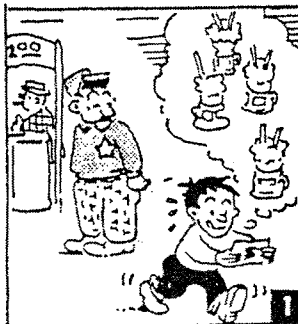




9

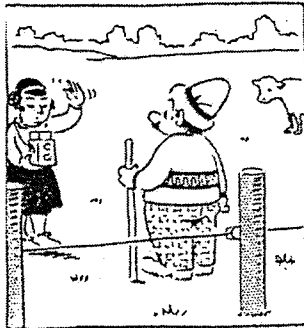


10

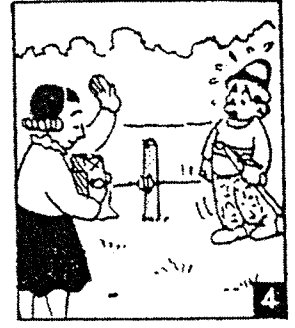
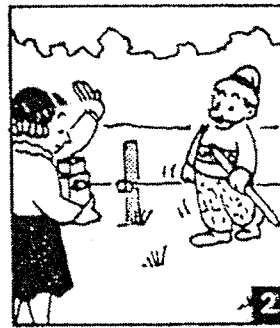
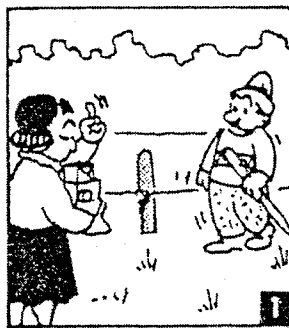
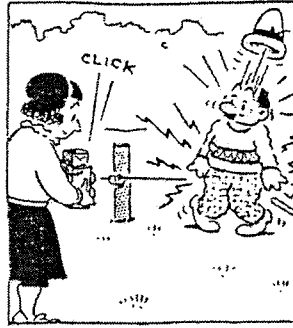


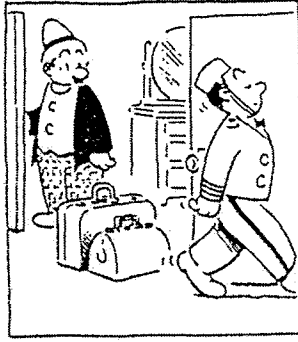


11

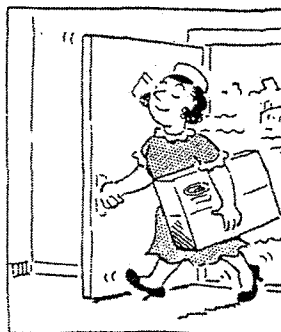
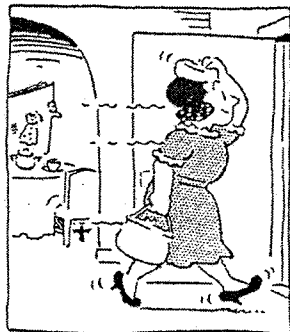
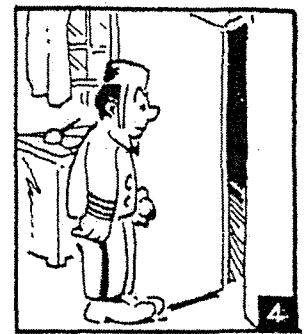
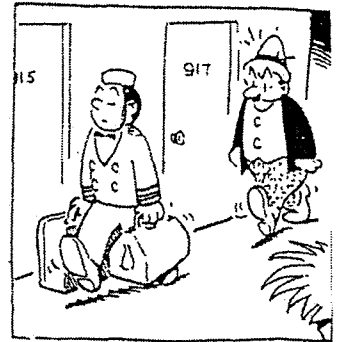


12

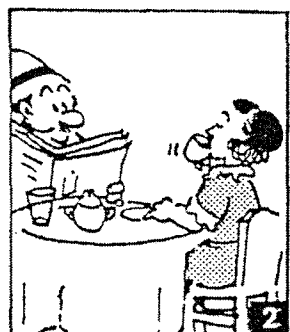


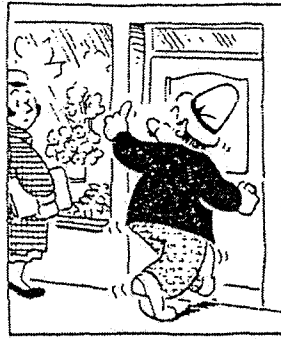
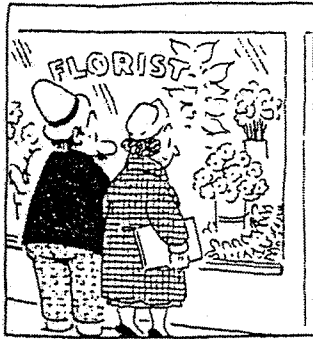


13

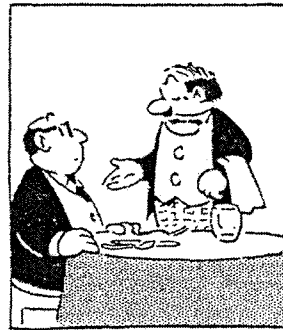
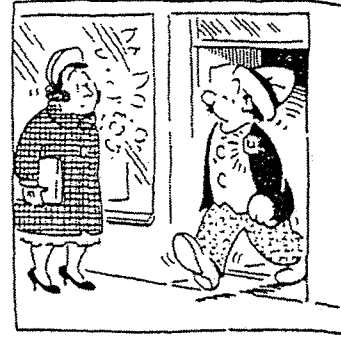


14



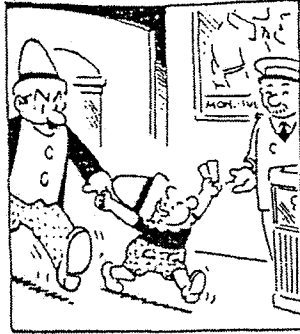


15

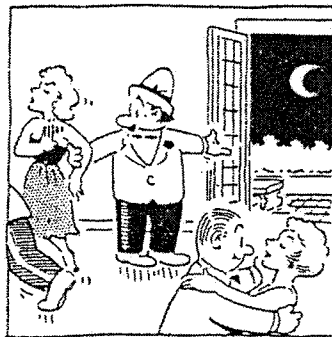
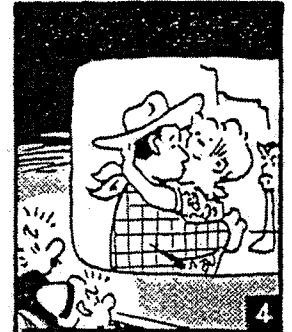
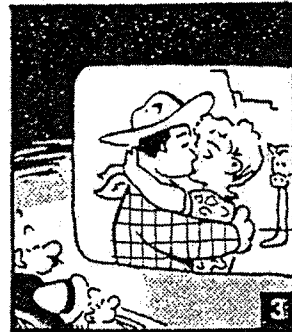
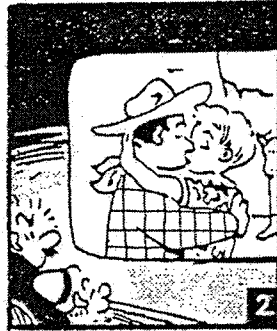


16

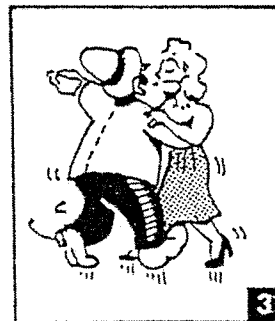
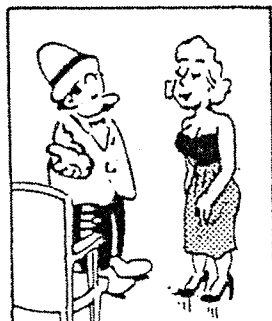
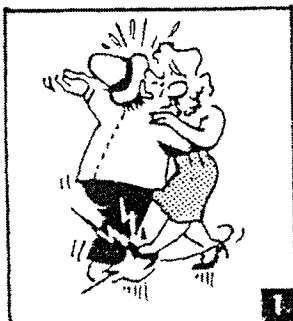
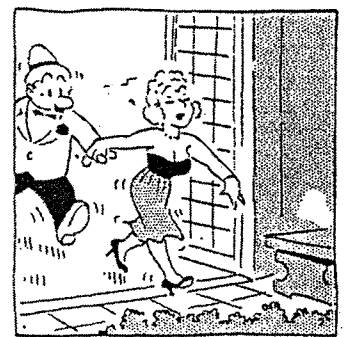




17

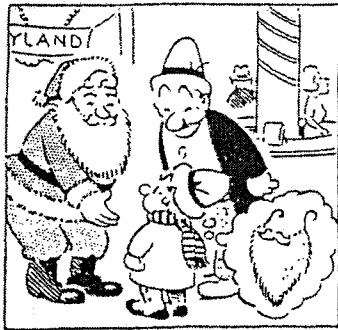


18



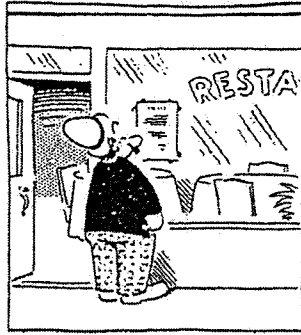


19



20

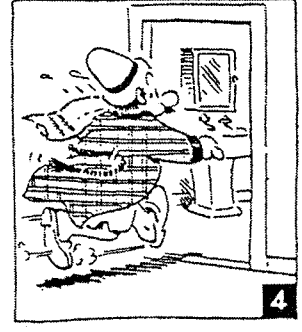
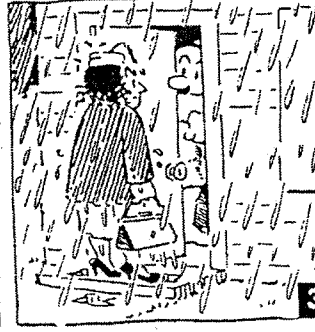
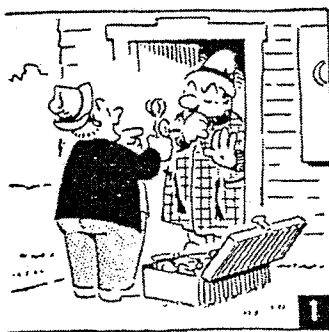


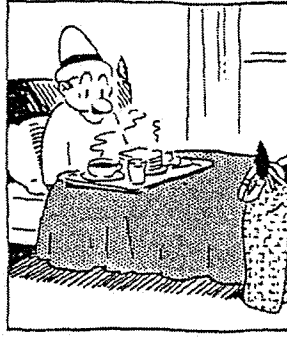
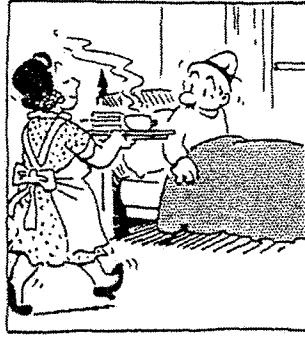
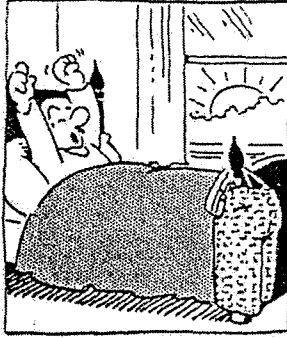


21

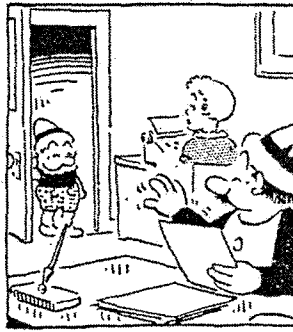


22

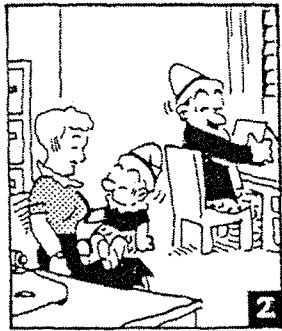




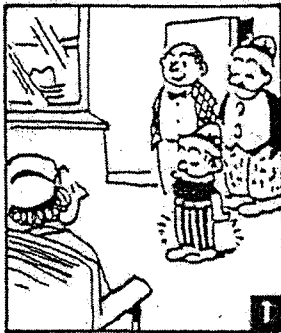
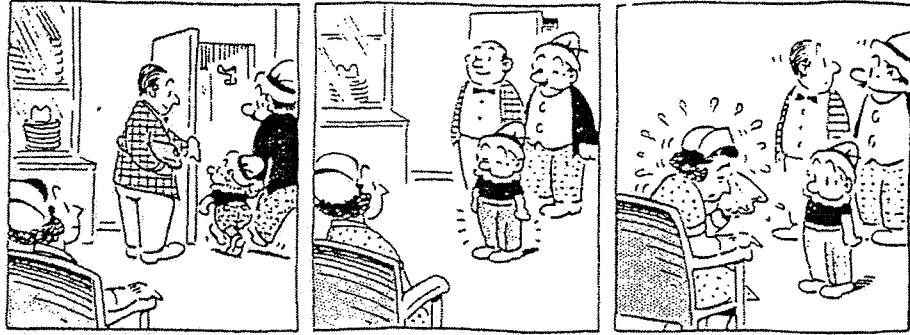
23



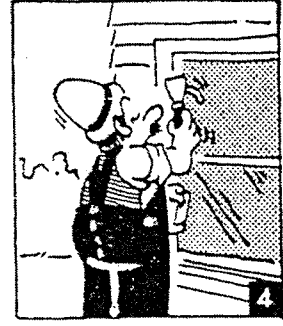
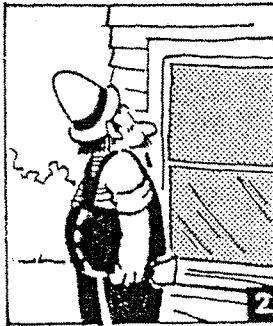
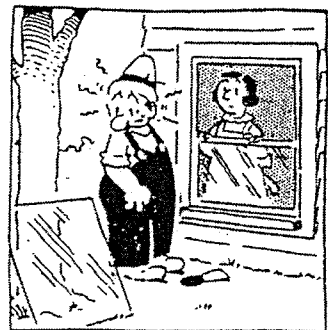
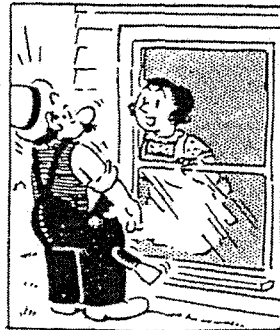
24



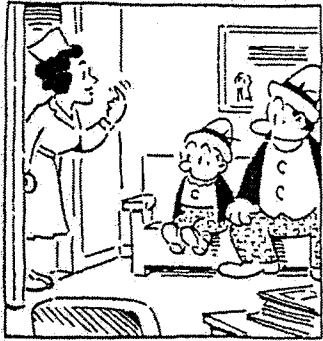
25



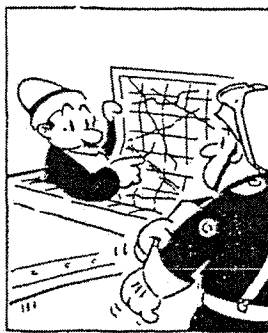
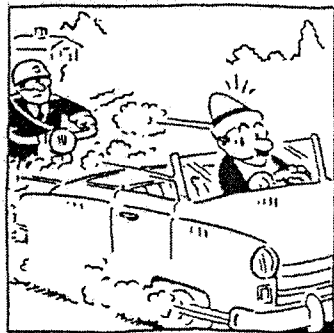
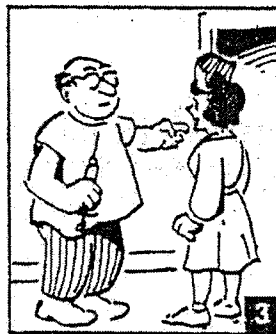
26



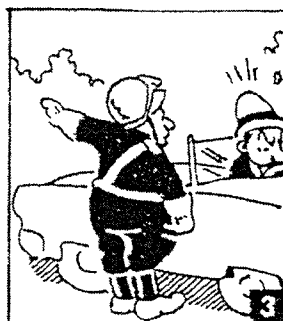
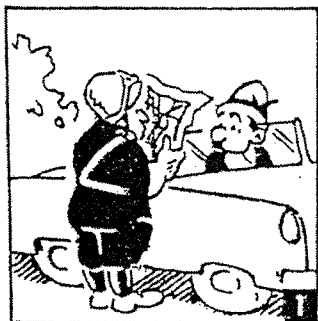
GO ON TO THE NEXT PAGE



27



28



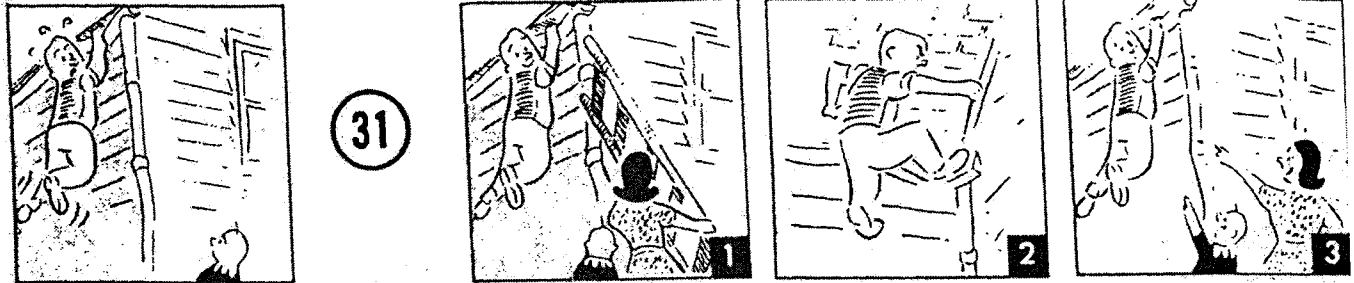
DO NOT WRITE ON THIS BOOKLET

CARTOON PREDICTIONS  
Form A

Maureen O'Sullivan and J. P. Guilford

In each item of this test, there is a cartoon showing people's reactions in a situation. After deciding what the intentions or feelings of the cartoon characters are, you are to choose the one of three cartoons which shows what will happen next.

Look at sample item 31.



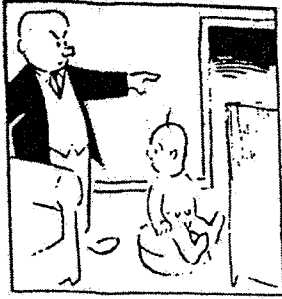
31 | 1 2 3

In the given cartoon, Barney, the bald-headed man, is frightened and is asking his son for help. The boy is upset by his father's predicament. The space under number 1 is blackened to indicate that alternative 1 is the correct prediction to make from this cartoon. The boy and his mother would help Barney get down. Neither alternative 2 nor 3 is correct. Since Barney looks frightened and helpless, it is unlikely that he could climb to the roof. The boy looks upset, so he and his mother would not laugh at Barney.

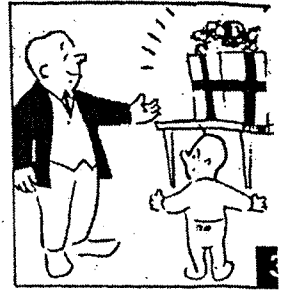
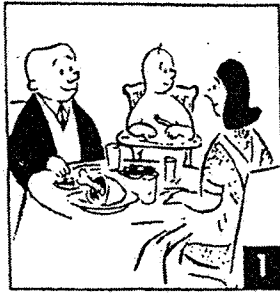
Remember: you are to predict what will happen on the basis of the thoughts, feelings, or intentions of the cartoon characters involved. Do not choose an alternative only because it is "funny." Mark your answers on your answer sheet.

Work as rapidly as you can. Do not spend a long time on any one item.

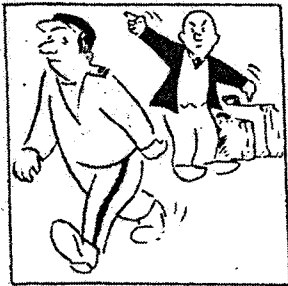
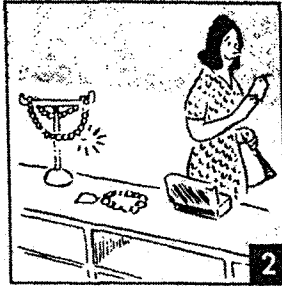
If you have questions, ask them now.



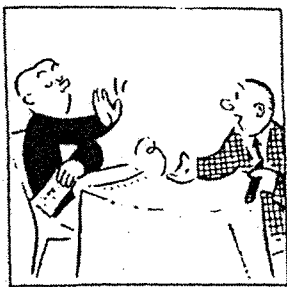
1



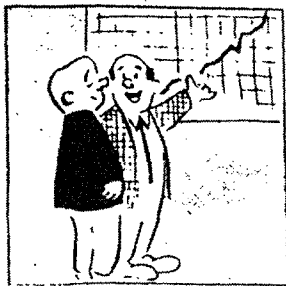
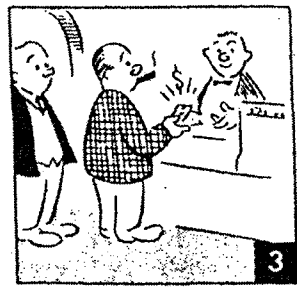
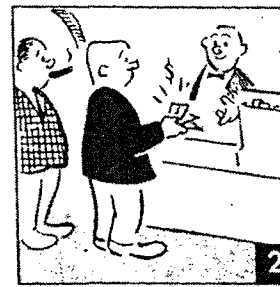
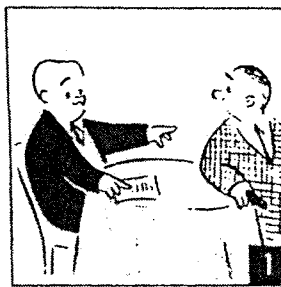
2



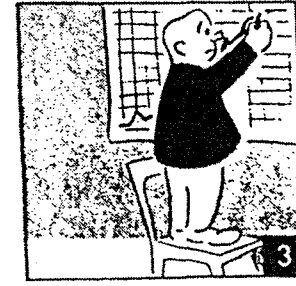
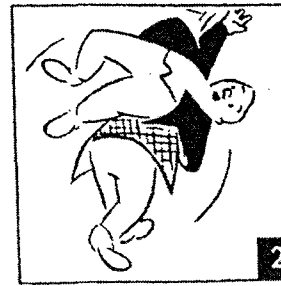
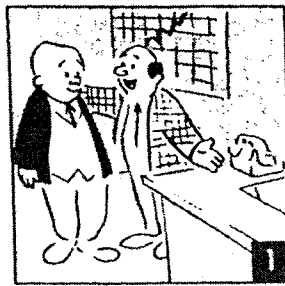
3

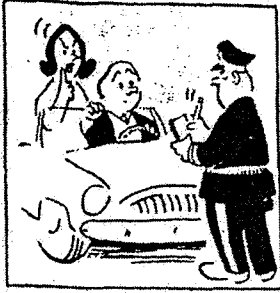


4

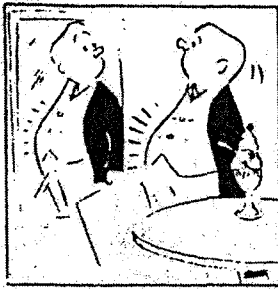
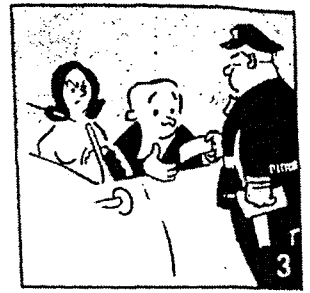
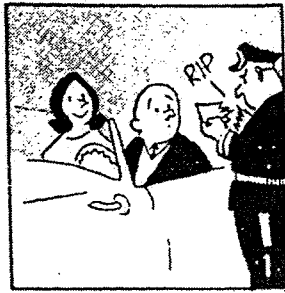


5

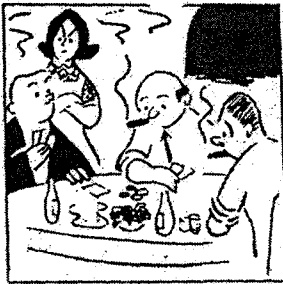
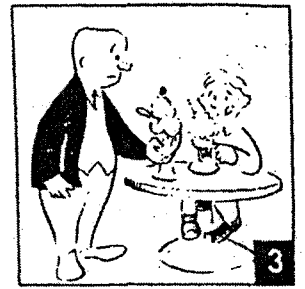
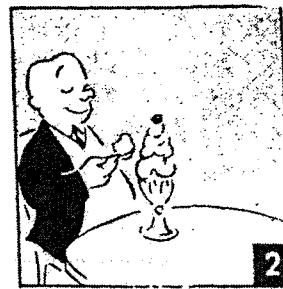
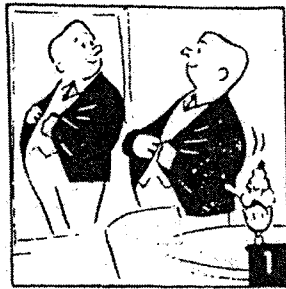




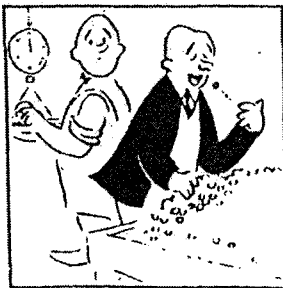
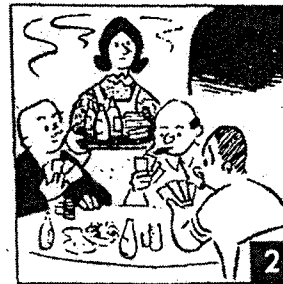
6



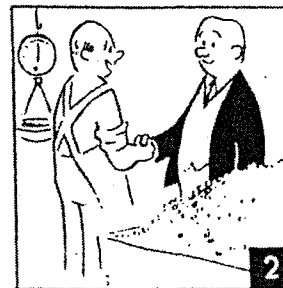
7



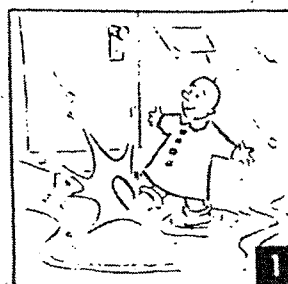
8

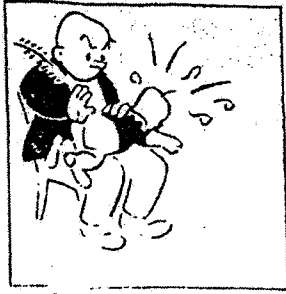


9

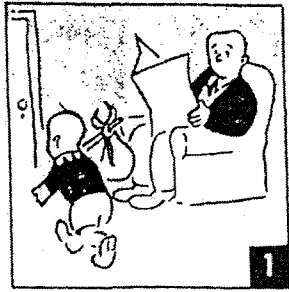


10

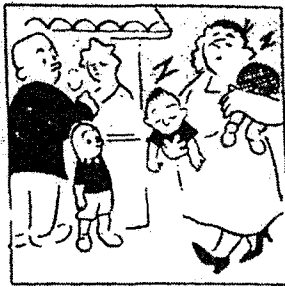
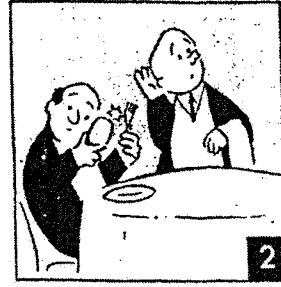
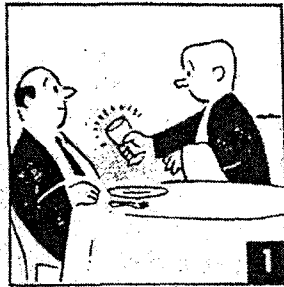




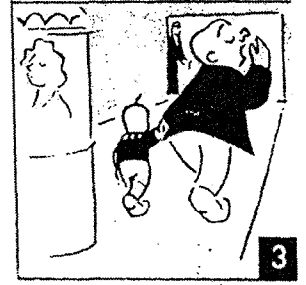
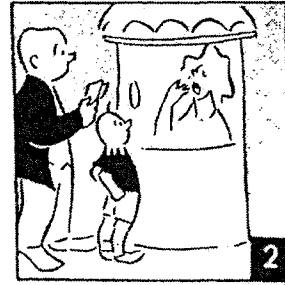
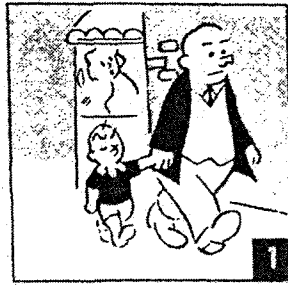
11



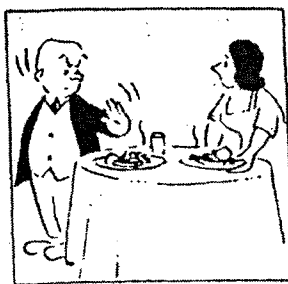
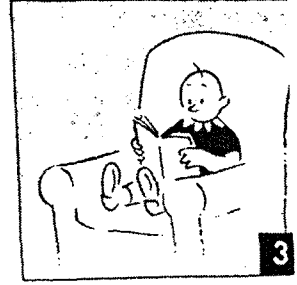
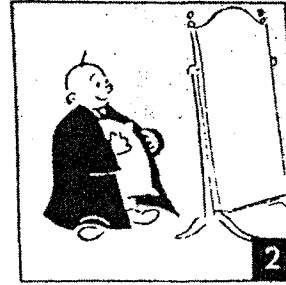
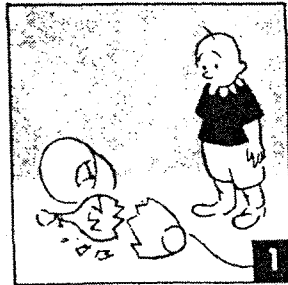
12



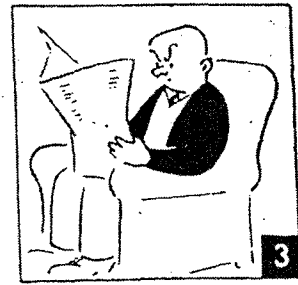
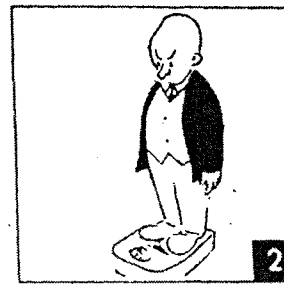
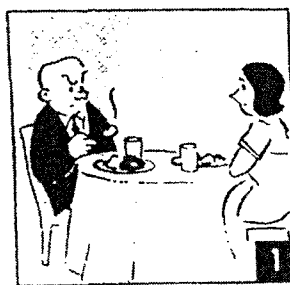
13

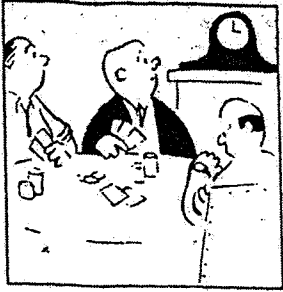


14

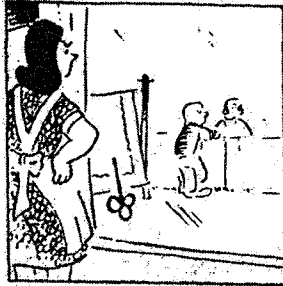
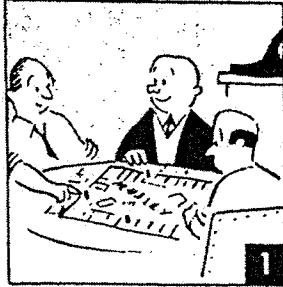


15

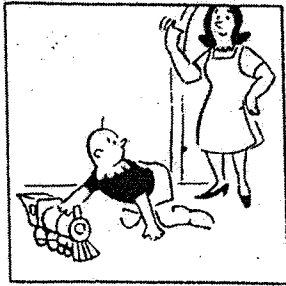
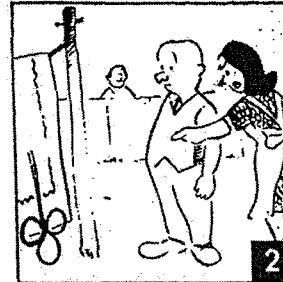
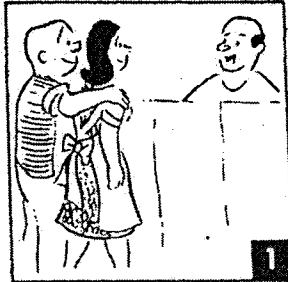




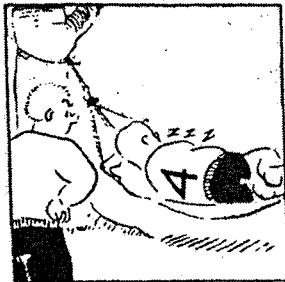
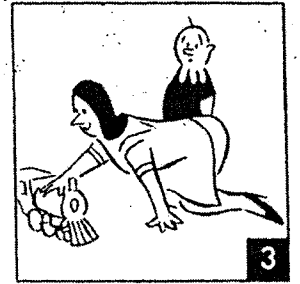
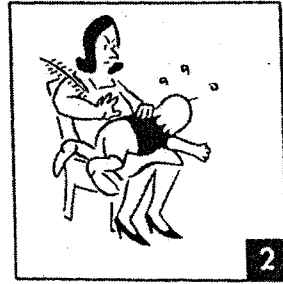
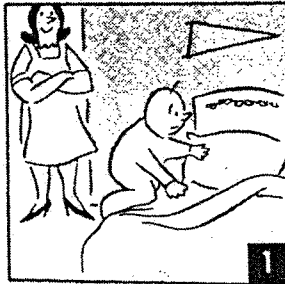
16



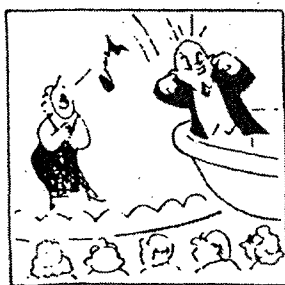
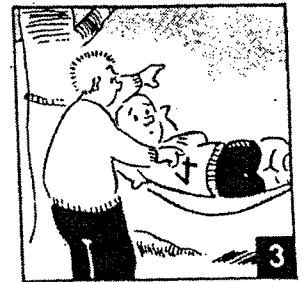
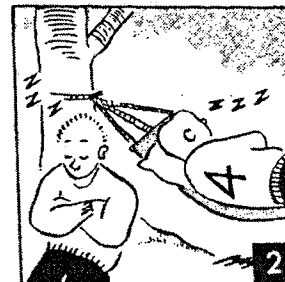
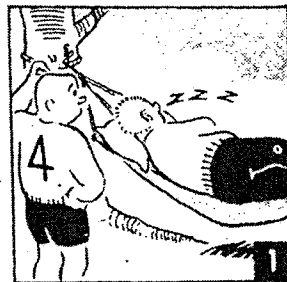
17



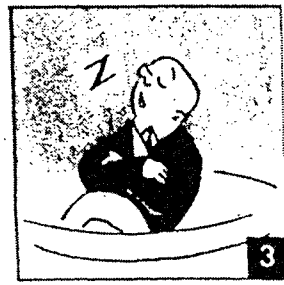
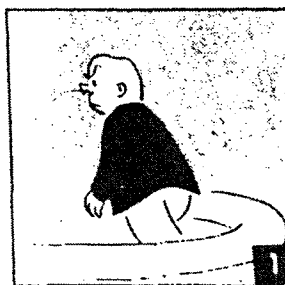
18

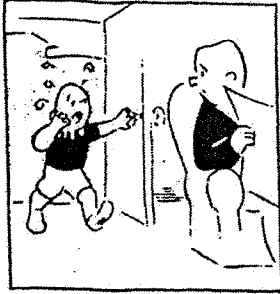


19

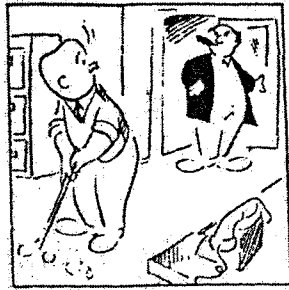
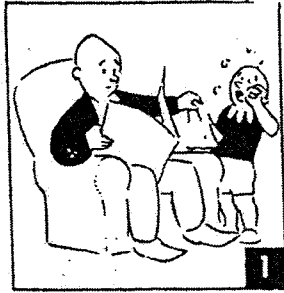


20

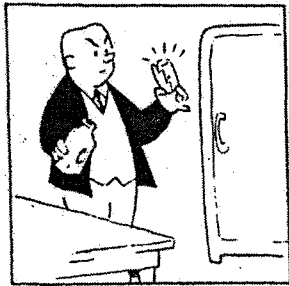
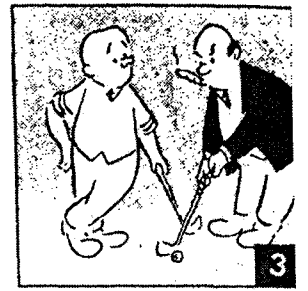
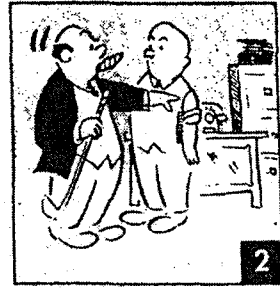




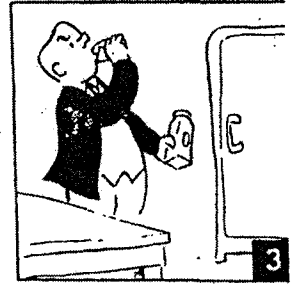
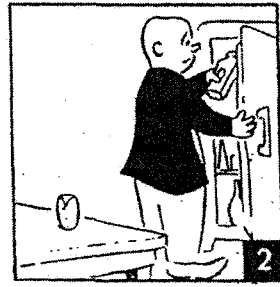
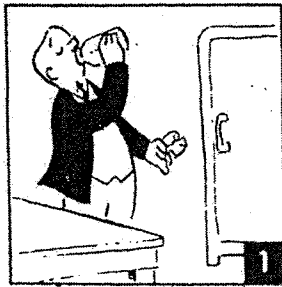
21



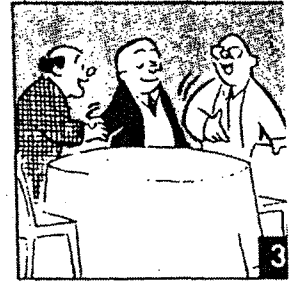
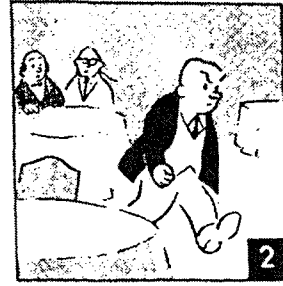
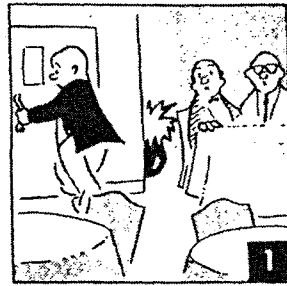
22



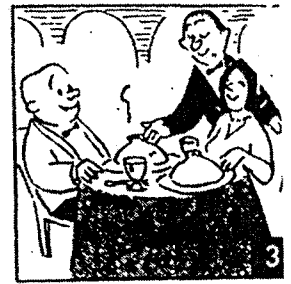
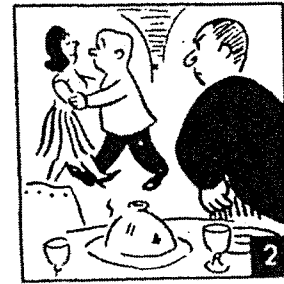
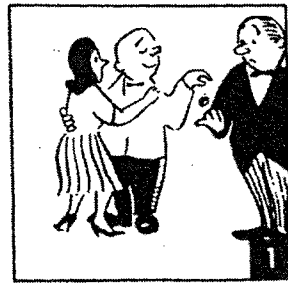
23



24



25

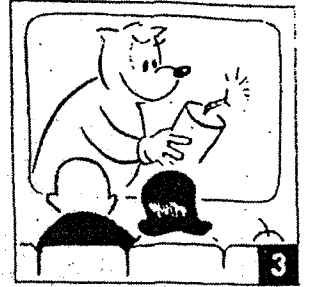
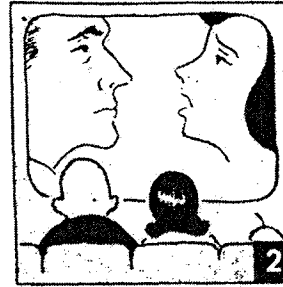
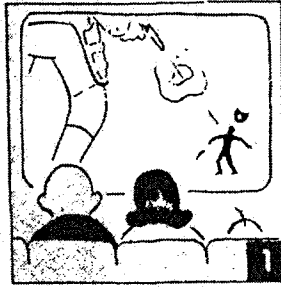




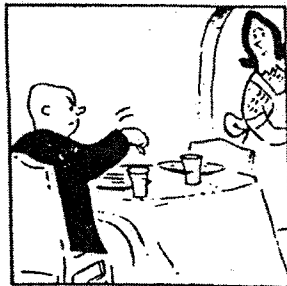
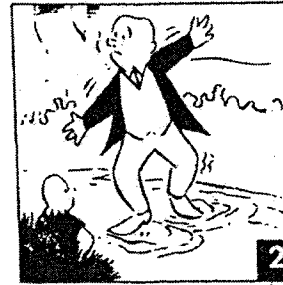
26



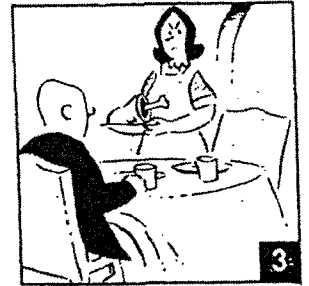
27



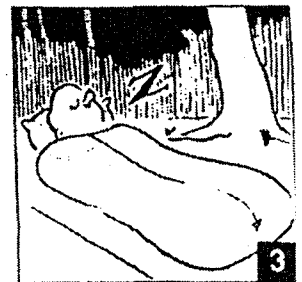
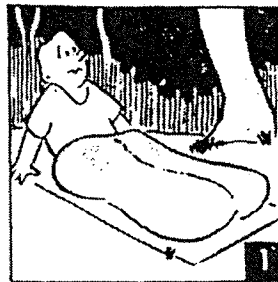
28



29



30



DO NOT WRITE ON THIS BOOKLET

SOCIAL TRANSLATIONS  
Form A

Maureen O'Sullivan and J. P. Guilford

In this test you will be given a statement. You will also be told who said the statement to whom. You are to choose another pair of people between whom the same verbal statement will have a different meaning or intention.

Look at sample item 25.

25. boss to secretary

"Please."

1) beggar to stranger

2) father to son

3) chauffeur to boss

25 | <sup>1</sup> | <sup>2</sup> | <sup>3</sup>  
| : | : | :  
| : | : | :

In sample item 25, a boss saying "Please " to his secretary is a statement of courtesy. A father saying "Please " to his son or a chauffeur saying "Please " to his boss is a similar, polite statement. However, if a beggar were to say "Please " to a stranger, the statement would have a more emotional, imploring meaning. Since the statement "Please " made by a beggar to a stranger has a different intention than "Please " said by a boss to his secretary, alternative 1 is the correct answer.

REMEMBER: you are to choose the pair of people between whom the given statement will have a different intention or meaning. Mark your answers on your answer sheet.

This test has two parts, of 12 items each. When you reach the end of Part I, stop until you are told to go on to Part II. You will have 4 minutes to work on each part.

If you have questions, ask them now.

TABLE 1

|   |   |
|---|---|
| 1. salesgirl to customer<br>"How do you like that?"   | 1) wife to eating husband<br>2) tailor to client<br>3) fighter to opponent                  |
| 2. friend to friend<br>"You're a great guy."          | 1) happy son to father<br>2) grateful boy to teacher<br>3) disgusted man to acquaintance    |
| 3. salesgirl to customer<br>"I'll give it to you."    | 1) smiling woman to child<br>2) doctor to patient<br>3) angry father to son                 |
| 4. judge to winner<br>"Congratulations."              | 1) father to winner<br>2) friend to winner<br>3) loser to winner                            |
| 5. proud father to friend<br>"Look at her."           | 1) envious girl to friend<br>2) delighted boy to friend<br>3) admiring girl to friend       |
| 6. friend to friend<br>"What are you doing?"          | 1) angry mother to child<br>2) curious passer-by to artist<br>3) teacher to busy student    |
| 7. man to parking lot attendant<br>"That's mine."     | 1) student to librarian<br>2) angry child to playmate<br>3) busy shopper to salesgirl       |
| 8. waitress to customer<br>"May I help you?"          | 1) psychiatrist to client<br>2) passer-by to accident victim<br>3) tourist guide to tourist |
| 9. teacher to pupil<br>"You can do better than that." | 1) wife to husband<br>2) mother to child<br>3) employer to employee                         |
| 10. policeman to suspect<br>"You're lying."           | 1) lawyer to witness<br>2) customer to salesman<br>3) patient to doctor                     |
| 11. dentist to patient<br>"Shut your mouth."          | 1) mother to noisy child<br>2) angry wife to husband<br>3) policeman to complaining drunk   |
| 12. acquaintance to acquaintance                      | 1) mother to child<br>2) customer to salesman   |

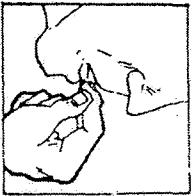
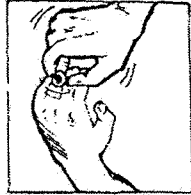
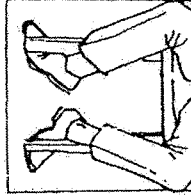


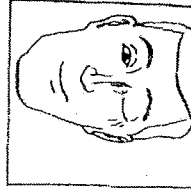
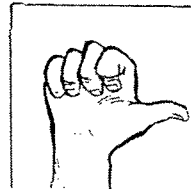
- |     |   |  |
|-----|---|--|
| 13. | doctor to patient<br>"Take this. "                      | 1) mother to son<br>2) fighter to opponent<br>3) salesgirl to customer                               |
| 14. | hard-of-hearing man to friend<br>"Say that again. "     | 1) insulted man to acquaintance<br>2) operator to person telephoning<br>3) student to teacher        |
| 15. | insurance salesman to customer<br>"Sign here, please. " | 1) hotel clerk to guest<br>2) autograph hunter to celebrity<br>3) bank teller to millionaire         |
| 16. | father to son<br>"I love you. "                         | 1) brother to sister<br>2) son to girl-friend<br>3) nephew to aunt                                   |
| 17. | mother to running child<br>"Close the door. "           | 1) busy wife to husband<br>2) girl to roommate<br>3) angry boss to employee                          |
| 18. | child to bully<br>"Leave me alone. "                    | 1) grieving widow to friend<br>2) annoyed man to salesman<br>3) girl to unwanted boy-friend          |
| 19. | girl-friend to boy-friend<br>"No. "                     | 1) mother to child<br>2) friend to friend<br>3) waiter to customer                                   |
| 20. | husband to nagging wife<br>"I'm tired of it. "          | 1) quitting employee to boss<br>2) girl to jealous boy-friend<br>3) eating child to mother           |
| 21. | baby-sitter to noisy child<br>"Stop it. "               | 1) driving instructor to pupil<br>2) annoyed girl to boy-friend<br>3) policeman to fighting teenager |
| 22. | parent to child<br>"I don't think so. "                 | 1) teacher to student<br>2) student to teacher<br>3) student to student                              |
| 23. | mother to salesman<br>"I'm sorry. "                     | 1) secretary to boss<br>2) boss to secretary<br>3) friend to friend                                  |
| 24. | aunt to niece<br>"Are you hurt? "                       | 1) driver to accident victim<br>2) fireman to fire victim<br>3) neighbor to child                    |

EXPRESSION GROUPING  
Form A

Maureen O'Sullivan and J. P. Guilford

In the sample item below, the three pictures at the left all go together because they stand for one kind of thought, feeling, or intention. One of the pictures at the right also belongs with them, since it shows the same expression.

Look at sample item 31.

|  |  |  |           |  |  |  |  |
|--|--|--|-----------|--|--|--|--|
|  |  |  | <b>31</b> |  |  |  |  |
|  |  |  |           | 1  | 2  | 3  | 4  |
|  |  |  | 31        | 1  | 2  | 3  | 4  |

The space under number 2 has been blackened because picture number 2 expresses the same kind of feeling, of tension or nervousness, that is shown in the three pictures at the left. Pictures 1, 3, and 4 show people who are enjoying themselves and are not tense or nervous.

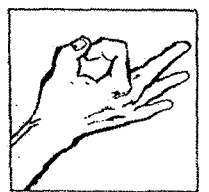
For each item in this test you are to choose the expression that belongs with the three pictures grouped at the left. Mark your answers on your answer sheet.

This test has two parts, of 15 items each. When you reach the end of Part I, stop until you are told to go on to Part II. You will have 5 minutes to work on each part.

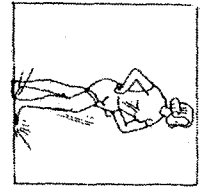
If you have questions, ask them now.



1



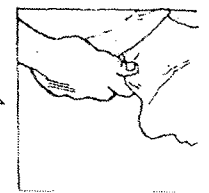
1



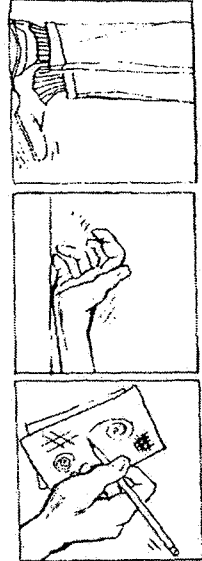
2



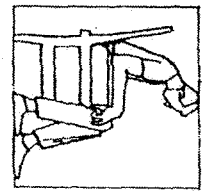
3



4



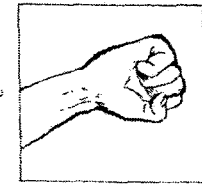
2



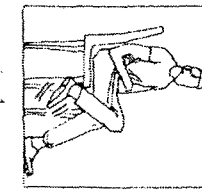
1



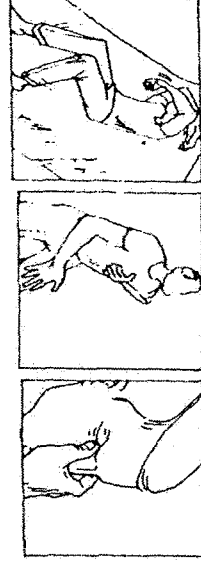
2



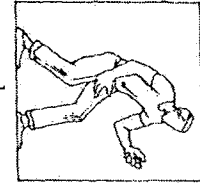
3



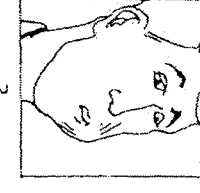
4



3



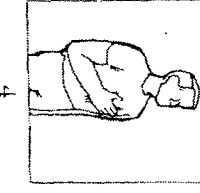
1



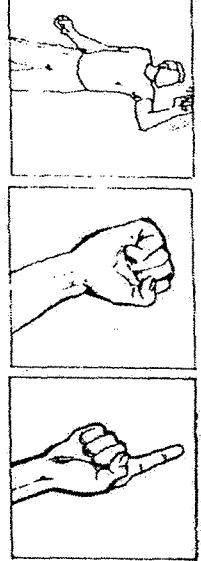
2



3



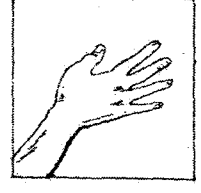
4



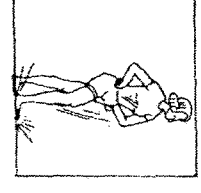
4



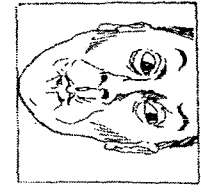
1



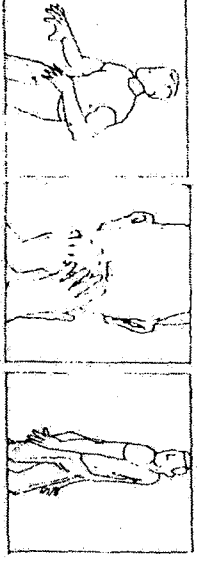
2



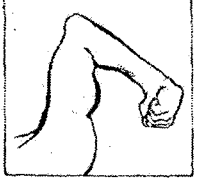
3



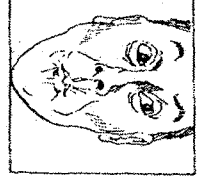
4



5



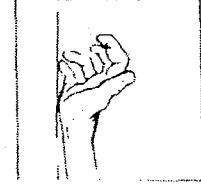
1



2

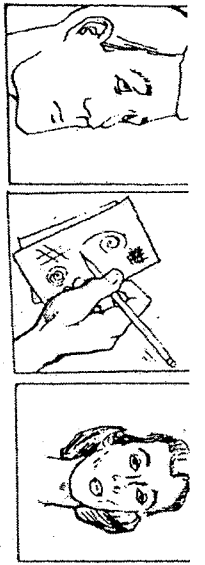


3

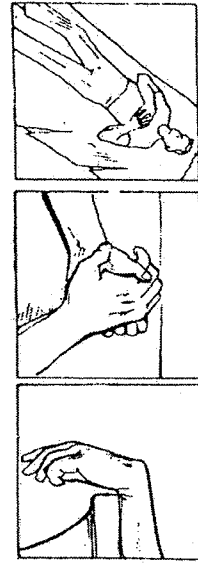
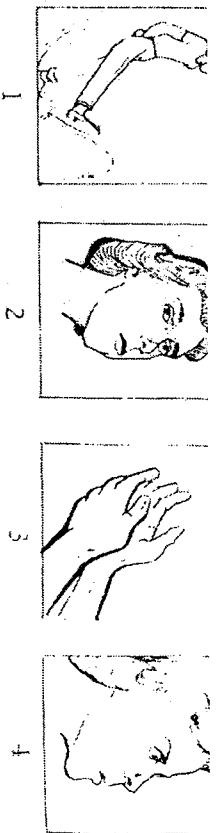


4

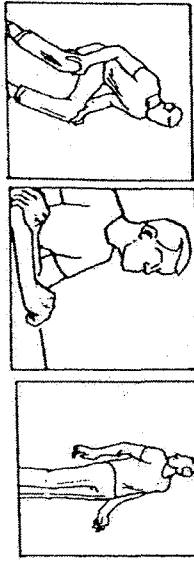
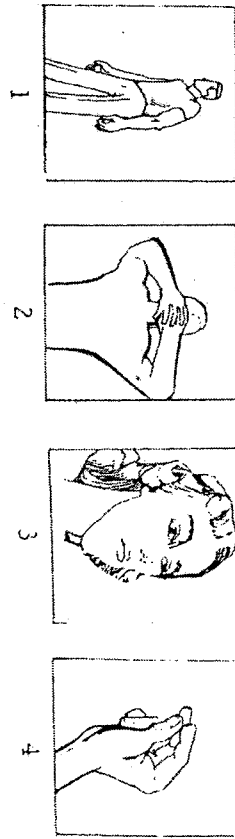
GO ON TO THE NEXT PAGE



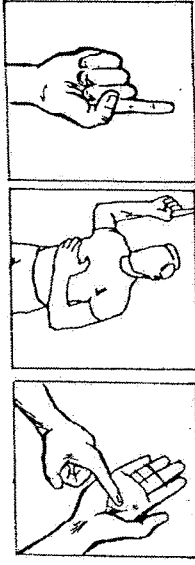
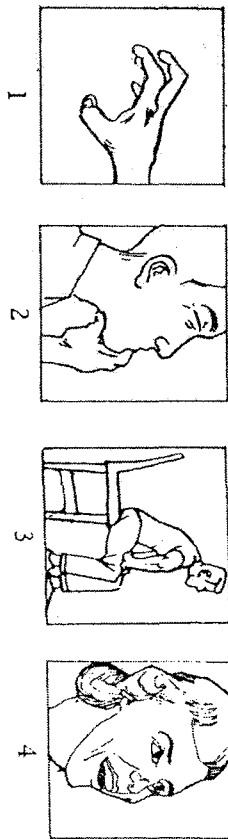
6



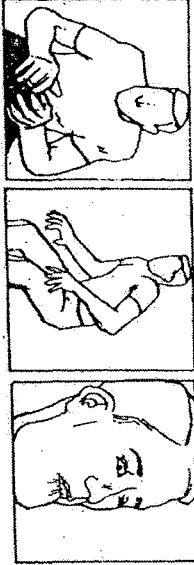
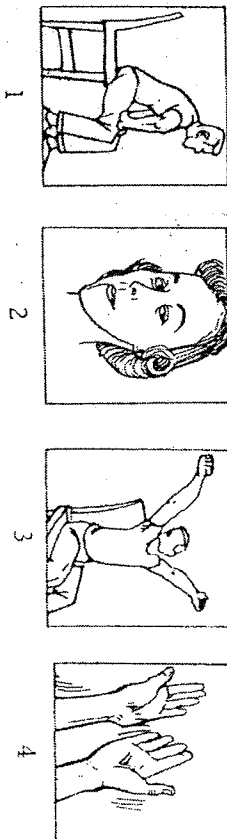
7



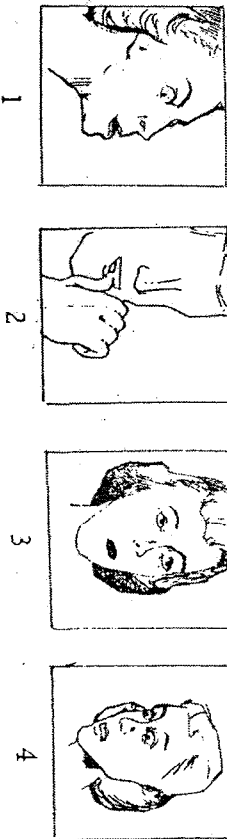
8



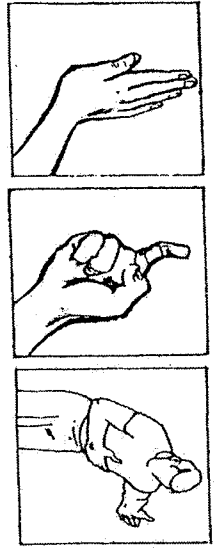
9



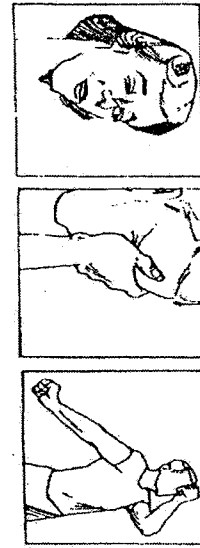
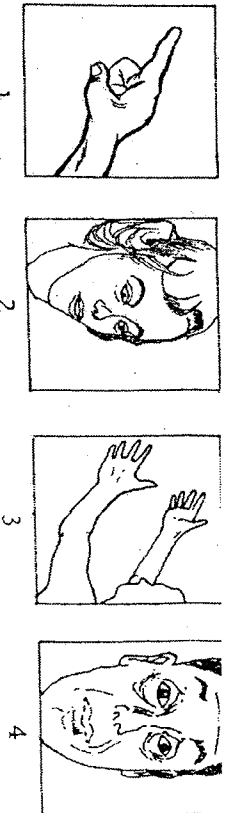
10



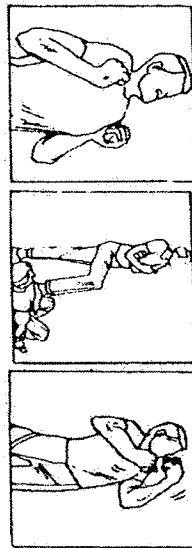
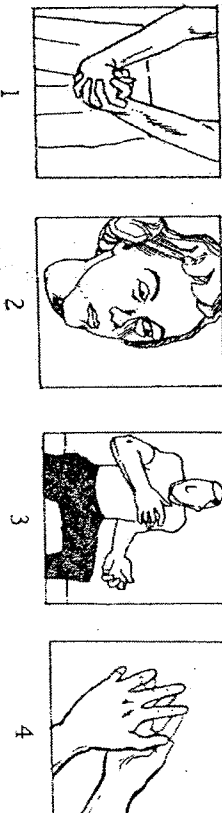
GO ON TO THE NEXT PAGE



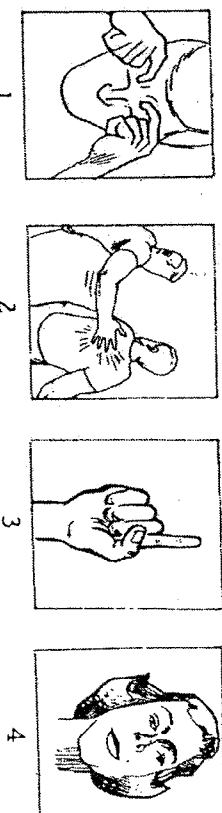
11



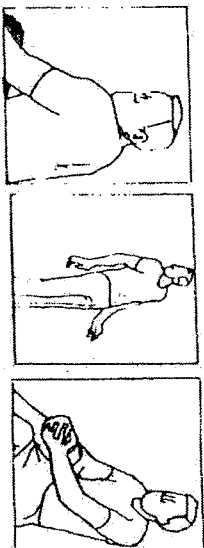
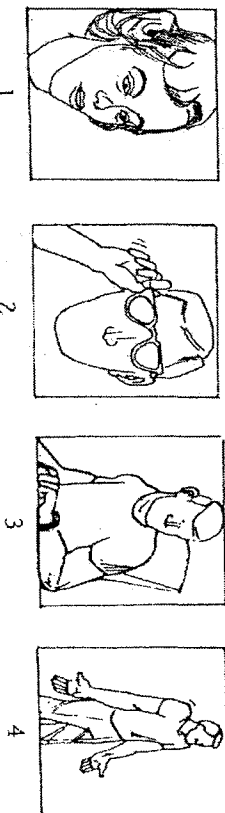
12



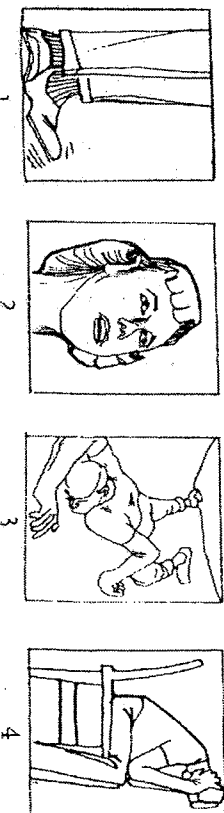
13

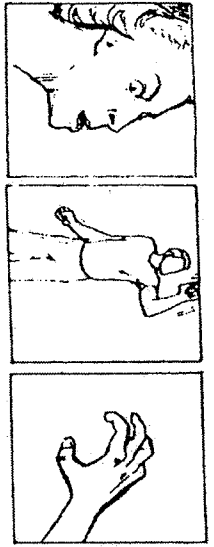


14

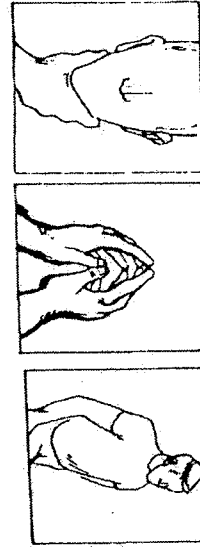
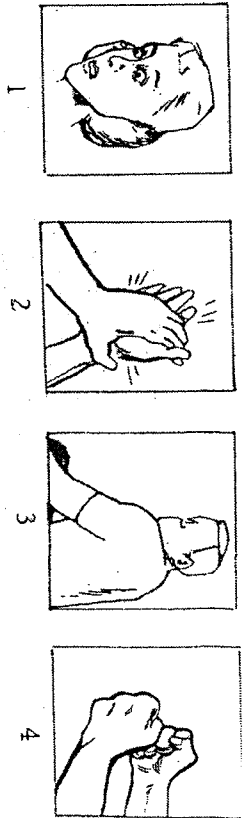


15

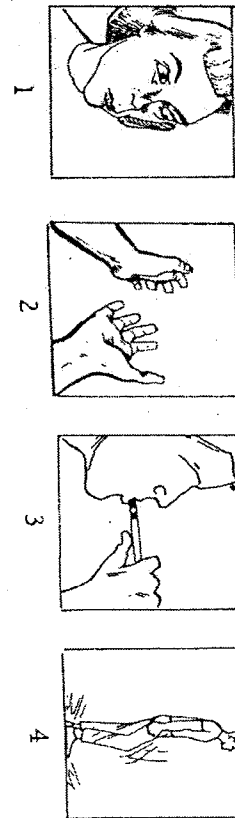




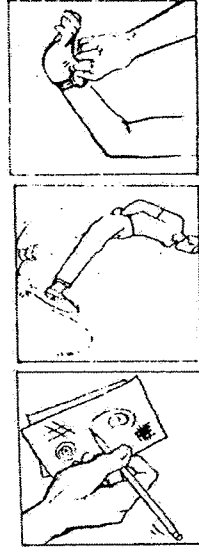
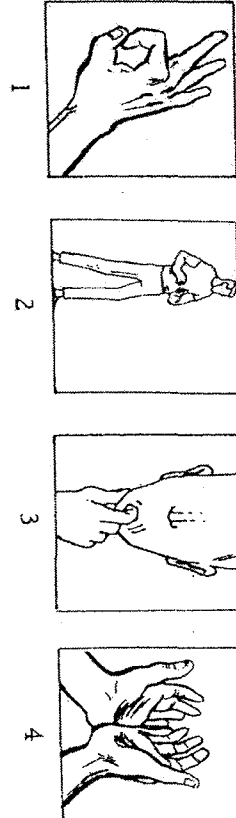
16



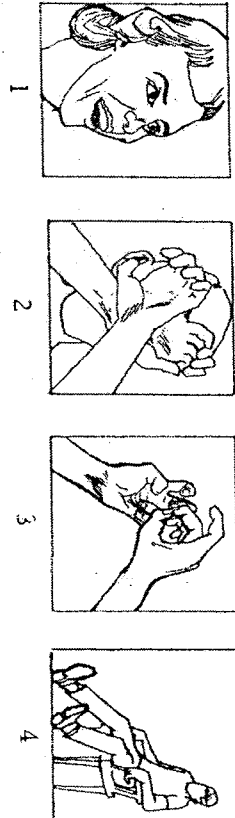
17



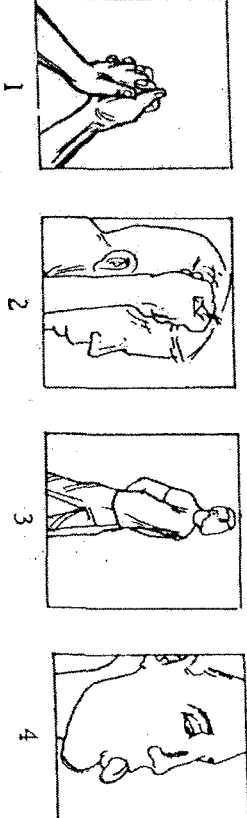
18



19



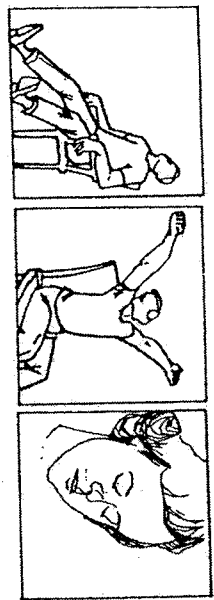
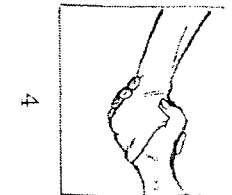
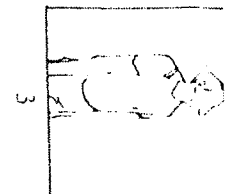
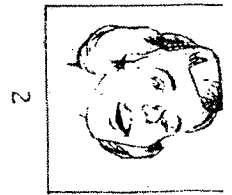
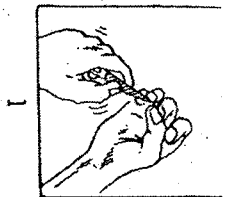
20



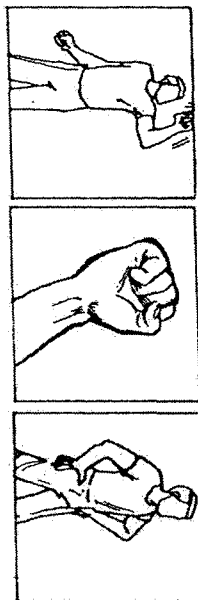
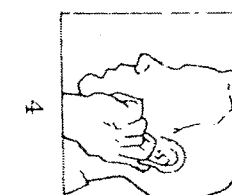
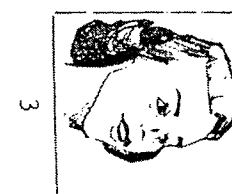
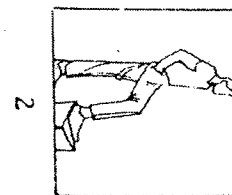
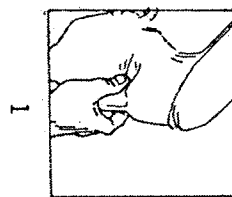
GO ON TO THE NEXT PAGE



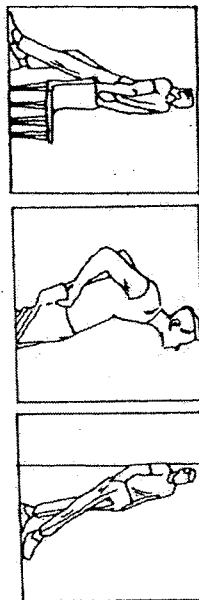
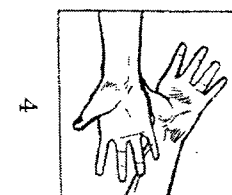
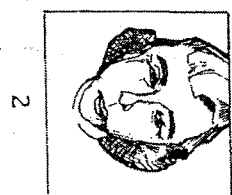
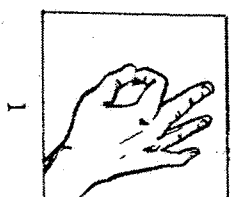
21



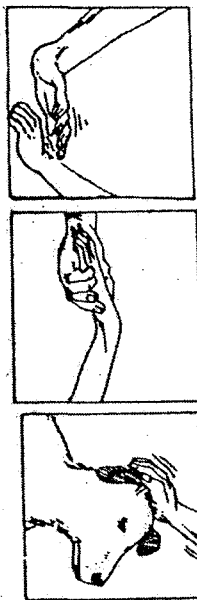
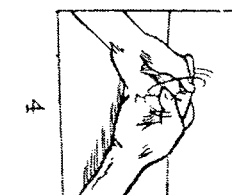
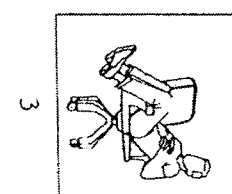
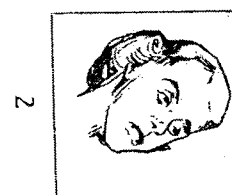
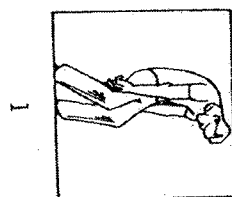
22



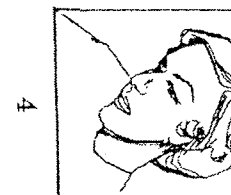
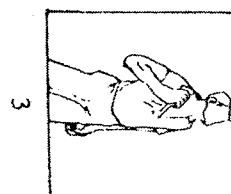
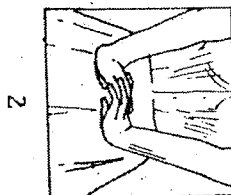
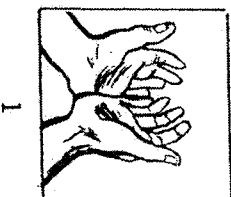
23



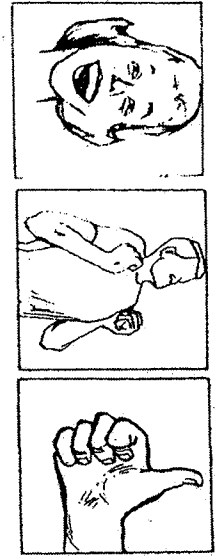
24



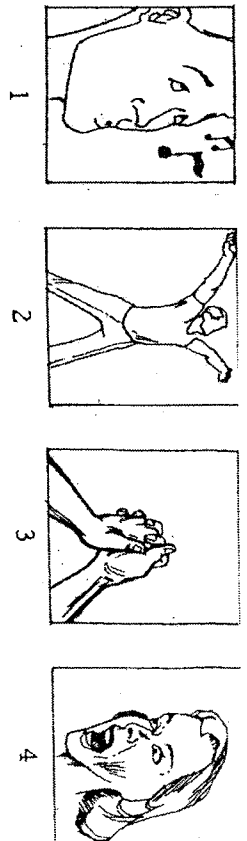
25



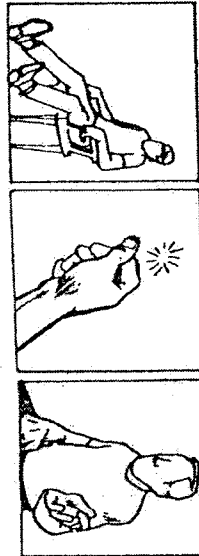
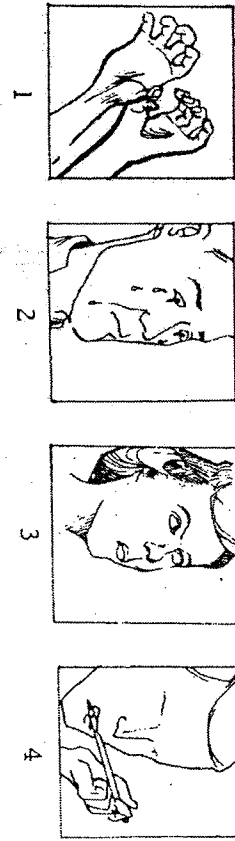
GO ON TO THE NEXT PAGE



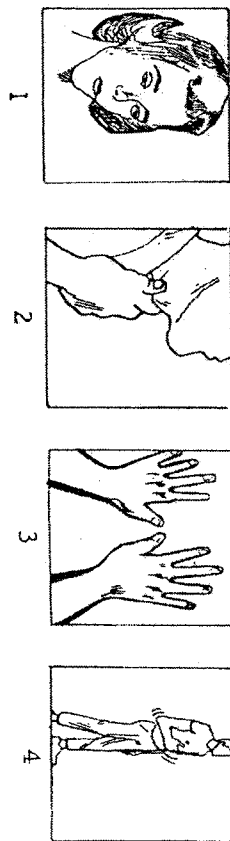
26



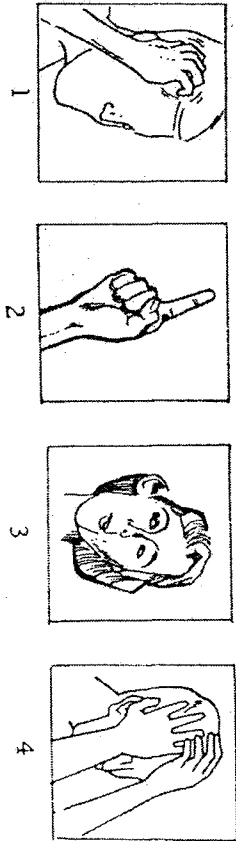
27



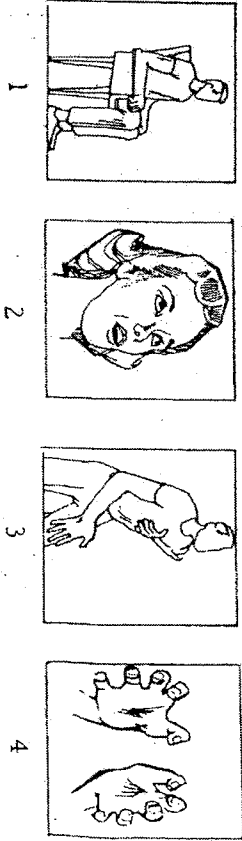
28



29



30



## Appendix K

*MOLEST Scale* (Bumby, 1996)

---

The statements below reflect thoughts and attitudes about children. Please indicate to what extent you agree with the statements below by writing the number beside each statement.

- |                   |          |       |                |
|-------------------|----------|-------|----------------|
| 1                 | 2        | 3     | 4              |
| strongly disagree | disagree | agree | strongly agree |
- \_\_\_ 1. I believe sex with children can make the child feel closer to adults.
- \_\_\_ 2. Since some victims tell the offender it feels good when offender touches them, the child probably enjoys it and it probably won't affect the child as much.
- \_\_\_ 3. Many children who are sexually assaulted do not experience any major problems because of the assaults.
- \_\_\_ 4. Sometimes, touching a child sexually is a way to show love and affection.
- \_\_\_ 5. Sometimes, children don't say no to sexual activity because they are curious about sex or enjoy it.
- \_\_\_ 6. When kids don't tell that they were involved in sexual activity with an adult it is probably because they liked it or weren't bothered by it.
- \_\_\_ 7. Having sexual thoughts and fantasies about a child isn't all that bad because at least it is not really hurting the child.
- \_\_\_ 8. If a person does not use force to have sexual activity with a child, it will not harm the child as much.
- \_\_\_ 9. Some people are not "true" child molesters – they are just out of control and made a mistake

- 
- | 1                 | 2        | 3     | 4              |
|-------------------|----------|-------|----------------|
| strongly disagree | disagree | agree | strongly agree |
- \_\_\_ 10. Just fondling a child is not as bad as penetrating a child, and will probably not affect the child as much.
- \_\_\_ 11. Some sexual relations with children are a lot like adult sexual relationships
- \_\_\_ 12. Sexual activity with children can help the child learn about sex
- \_\_\_ 13. I think child molesters often get longer sentences than they really should
- \_\_\_ 14. Kids who get molested by more than one person probably are doing something to attract adults to them
- \_\_\_ 15. Society makes a much bigger deal out of sexual activity with children than it really is
- \_\_\_ 16. Sometimes child molesters suffer the most, lose the most, or are hurt the most as a result of a sexual assault on a child more than a child suffers, loses, or is hurt
- \_\_\_ 17. It is better to have sex with one's child than to cheat on one's wife
- \_\_\_ 18. There is no real manipulation or threat used in a lot of sexual assaults on children
- \_\_\_ 19. Some kids like sex with adults because it makes them feel wanted and loved
- \_\_\_ 20. Some men sexually assaulted children because they really thought the children would enjoy how it felt
- \_\_\_ 21. Some children are willing and eager to have sexual activity with adults
- \_\_\_ 22. During sexual assaults on children, some men ask their victims if they liked what they were doing because they wanted to please the child and make them feel good

- 
- | 1                 | 2        | 3     | 4              |
|-------------------|----------|-------|----------------|
| strongly disagree | disagree | agree | strongly agree |
- \_\_\_ 23. Children who have been involved in sexual activity with an adult will eventually get over it and go on with their lives
- \_\_\_ 24. Some children can act very seductively
- \_\_\_ 25. Trying to stay away from children is probably enough to prevent a molester from molesting again
- \_\_\_ 26. A lot of times, sexual assaults on children are not planned....they just happen.
- \_\_\_ 27. Many men sexually assaulted children because of stress, and molesting helped to relieve that stress
- \_\_\_ 28. A lot of times, kids make up stories about people molesting them because they want to get attention
- \_\_\_ 29. If a person tells himself that he will never molest again, the he probably won't
- \_\_\_ 30. If a child looks at an adults' genitals, the child is probably interested in sex
- \_\_\_ 31. Sometimes victims initiate sexual activity
- \_\_\_ 32. Some people turn to children for sex because they were deprived of sex from adult women
- \_\_\_ 33. Some young children are much more adult-like than other children

---

|                   |          |       |                |
|-------------------|----------|-------|----------------|
| 1                 | 2        | 3     | 4              |
| strongly disagree | disagree | agree | strongly agree |

- \_\_\_ 34. Children who come into the bathroom when an adult is getting undressed or going to the bathroom are probably just trying to see the adult's genitals
- \_\_\_ 35. Children can give adults more acceptance and love than other adults
- \_\_\_ 36. Some men who molest children really don't like molesting children
- \_\_\_ 37. I think the main thing wrong with sexual activity with children is that it is against the law
- \_\_\_ 38. If most child molesters hadn't been sexually abused as a child, they probably never would have molested a child.

## Appendix L

### *Child Molester Empathy Measure* (Fernandez, Marshall, Lightbody, & O'Sullivan, 1999)

#### ***Scenario 1***

In this section I want you to think about a child who was disfigured in a car accident and had to spend a month in the hospital. The child is now out of hospital and will live with a permanent disability.

#### ***Scenario 2***

In this section I want you to think about a child who has been sexually assaulted by an adult male. The child has no obvious signs of damage.

#### ***Scenario 3***

Now I want you to think about your own victim or victims, and the experiences they had with you.

**Part 1**

Indicate the degree to which you think this child (or your victim) would be experiencing the following emotions, thoughts, or behaviors. Zero represents “not at all” and 10 represents “very much”.

|                                    | Not at all             | Very much              |
|------------------------------------|------------------------|------------------------|
|                                    | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 1. Guilty                          | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 2. Sad                             | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 3. Angry                           | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 4. Self-confident*                 | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 5. Nightmares                      | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 6. Fearful of close relationships  | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 7. Suicidal thoughts               | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 8. Problems with work              | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 9. Fearful of being hurt           | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 10. Successful at school*          | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 11. Repulsed by sex                | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 12. Well-adjusted attitude to sex* | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 13. Sleep disturbances             | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 14. Feelings of loneliness         | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 15. Withdrawn from others          | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 16. Tense                          | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 17. Relaxed*                       | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 18. Has psychiatric problems       | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |
| 19. Has low energy                 | 0 1 2 3 4 5 6 7 8 9 10 | 0 1 2 3 4 5 6 7 8 9 10 |

|   | Not at all |   |   |   |   | Very much |   |   |   |   |    |
|---|------------|---|---|---|---|-----------|---|---|---|---|----|
|   | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 20. Shows tendency to blame him/herself for<br>all problems | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 21. Feelings of helplessness                                | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 22. Argues with others                                      | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 23. Fearful of being alone                                  | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 24. Tendency to cling to friends                            | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 25. Proud of self*  | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 26. Is in pain  | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 27. Upset   | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 28. Feels sinful  | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 29. Feels dirty   | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |
| 30. Ashamed   | 0          | 1 | 2 | 3 | 4 | 5         | 6 | 7 | 8 | 9 | 10 |

\*Items marked with an asterisk are negatively keyed.

**Part 2**

Indicate how you feel about what this child (or your victim) has experienced. Please circle the number that best indicates how you feel about this woman's (or your victim's) experience. Zero represents "not at all" and 10 represents "very much".

|                 | Not at all | Very much |   |   |   |   |   |   |   |   |    |
|-----------------|------------|-----------|---|---|---|---|---|---|---|---|----|
|                 | _____      |           |   |   |   |   |   |   |   |   |    |
| 1. Guilty       | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2. Sad          | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 3. Angry        | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 4. Sexual*      | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5. Pain         | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 6. Affection*   | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 7. Upset        | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 8. Proud*       | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 9. Devastated   | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 10. Helpless    | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11. Responsible | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 12. Sick        | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 13. Good*       | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 14. Frustrated  | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 15. Hopeful*    | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 16. Trusting*   | 0          | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

|               | Not at all |   |   |   |   |   |   |   |   |   |    | Very much |
|---------------|------------|---|---|---|---|---|---|---|---|---|----|-----------|
|               | _____      |   |   |   |   |   |   |   |   |   |    |           |
| 17. Ashamed   | 0          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |           |
| 18. Disgusted | 0          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |           |
| 19. Curious*  | 0          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |           |
| 20. Shocked   | 0          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |           |

\* Items marked with an asterisk are negatively keyed.



Appendix N

*The Empathy Skills Questionnaire-Self-Report (ESQ-SR; Preston & Murphy, 1996)*

---

In the space provided, please indicate what you would do in each scenario. Answer as truthfully as possible, and not based on what you believe is the “right” thing to do.

1. Your partner tells you they were abused as a child. How do you respond?

---

---

---

2. A neighbour tells you they've been burglarized and a valuable family heirloom was stolen. How do you respond?

---

---

---

3. You are shopping at a mall, and a frantic looking person rushes up to you and says, “I've lost my child!” How do you respond?

---

---

---

4. A friend calls you on the phone while having a bad drug experience. How do you respond?

---

---

---

5. You see a child being bullied by an older child. How do you respond?

---

---

---

6. Your partner gets diagnosed with a terminal illness. How do you respond?

---

---

---

7. A friend's child gets seriously injured in a car accident. How do you respond?

---

---

---

8. A co-worker's mother is dying, but he can't afford the airfare to go see her. How do you respond?

---

---

---

9. Your partner miscarries. How do you respond?

---

---

---

10. You're sitting beside a stranger on a two-hour bus ride. After some time, they tell you that they are on their way to their best friend's funeral. How do you respond?

---

---

---

11. You come across a child whose dog has just been killed by a passing car. There are no other adults around. How do you respond?

---

---

---

12. A friend confides in you that he just broke up with his partner. How do you respond?

---

---

---

13. While you are walking in a park, you come across an elderly victim of a mugging. How do you respond?

---

---

---

14. You are the only adult on a bus sitting near a child who begins to cry. How do you respond?

---

---

---

15. A co-worker comes to you and tells you he has just been laid off. How do you respond?

---

---

---

## Appendix O

Aggression Questionnaire (Buss & Perry, 1992)

Using the 5-point scale shown below, indicate how uncharacteristic or characteristic each of the following statements is in describing you. Please circle the number that best represents you.

| 1  | 2                  | 3                   | 4                | 5            |
|--|--------------------|---------------------|------------------|--------------|
| very unlike me   | somewhat unlike me | like me/not like me | somewhat like me | very like me |
| 1. Some of my friends think I am a hothead.                            |                    |                     | 1 2 3 4 5        |              |
| 2. If I have to resort to violence to protect my rights, I will.       |                    |                     | 1 2 3 4 5        |              |
| 3. When people are especially nice to me, I wonder what they want.     |                    |                     | 1 2 3 4 5        |              |
| 4. I tell my friends openly when I disagree with them.                 |                    |                     | 1 2 3 4 5        |              |
| 5. I have become so mad that I have broken things.                     |                    |                     | 1 2 3 4 5        |              |
| 6. I can't help getting into arguments when people disagree with me.   |                    |                     | 1 2 3 4 5        |              |
| 7. I wonder why sometimes I feel so bitter about things.               |                    |                     | 1 2 3 4 5        |              |
| 8. Once in a while, I can't control the urge to strike another person. |                    |                     | 1 2 3 4 5        |              |
| 9. I am an even-tempered person.*                                      |                    |                     | 1 2 3 4 5        |              |
| 10. I am suspicious of very friendly strangers.                        |                    |                     | 1 2 3 4 5        |              |
| 11. I have threatened people I know.                                   |                    |                     | 1 2 3 4 5        |              |
| 12. I flare up quickly but get over it quickly.                        |                    |                     | 1 2 3 4 5        |              |
| 13. Given enough provocation, I may hit another person.                |                    |                     | 1 2 3 4 5        |              |
| 14. When people annoy me, I may tell them what I think of them.        |                    |                     | 1 2 3 4 5        |              |
| 15. I am sometimes eaten up with jealousy.                             |                    |                     | 1 2 3 4 5        |              |
| 16. I can think of no good reason for ever hitting a person.*          |                    |                     | 1 2 3 4 5        |              |

|   | 1              | 2                  | 3                   | 4                | 5            |
|---|----------------|--------------------|---------------------|------------------|--------------|
|   | very unlike me | somewhat unlike me | like me/not like me | somewhat like me | very like me |
| 17. At times I feel I have gotten a raw deal out of life.                 |                |                    |                     | 1 2 3 4 5        |              |
| 18. I have trouble controlling my temper.                                 |                |                    |                     | 1 2 3 4 5        |              |
| 19. When frustrated, I let my irritation show.                            |                |                    |                     | 1 2 3 4 5        |              |
| 20. I sometimes feel that people are laughing at me behind my back.       |                |                    |                     | 1 2 3 4 5        |              |
| 21. I often find myself disagreeing with people.                          |                |                    |                     | 1 2 3 4 5        |              |
| 22. If somebody hits me, I hit back.                                      |                |                    |                     | 1 2 3 4 5        |              |
| 23. I sometimes feel like a powder keg ready to explode.                  |                |                    |                     | 1 2 3 4 5        |              |
| 24. Other people always seem to get the breaks.                           |                |                    |                     | 1 2 3 4 5        |              |
| 25. Other people have pushed me so far that we can't take any more blows. |                |                    |                     | 1 2 3 4 5        |              |
| 26. I know that "friends" talk about me behind my back.                   |                |                    |                     | 1 2 3 4 5        |              |
| 27. My friends say that I'm somewhat argumentative.                       |                |                    |                     | 1 2 3 4 5        |              |
| 28. Sometimes I fly off the handle for no good reason.                    |                |                    |                     | 1 2 3 4 5        |              |
| 29. I get into fights a little more than the average person.              |                |                    |                     | 1 2 3 4 5        |              |

\* Items marked with an asterisk are negatively keyed.

## Appendix P

Direct and Indirect Aggression Scale-Adult Version (Moulden & Marshall, 2001)

Please circle the number that best describes how often you engage in the behaviours listed below when you are feeling upset or angry with someone.

|       |        |           |       |        |
|-------|--------|-----------|-------|--------|
| 1     | 2      | 3         | 4     | 5      |
| never | seldom | sometimes | often | always |

**When I feel upset or angry with someone, I am likely to...**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. Hit that person  | 1 | 2 | 3 | 4 | 5 |
| 2. Exclude that person from social activities               | 1 | 2 | 3 | 4 | 5 |
| 3. Yell at or argue with that person.                       | 1 | 2 | 3 | 4 | 5 |
| 4. Pay extra attention to other people out of revenge.      | 1 | 2 | 3 | 4 | 5 |
| 5. Kick that person.  | 1 | 2 | 3 | 4 | 5 |
| 6. Give that person the silent treatment                    | 1 | 2 | 3 | 4 | 5 |
| 7. Insult that person.                                      | 1 | 2 | 3 | 4 | 5 |
| 8. Gossip about that person.                                | 1 | 2 | 3 | 4 | 5 |
| 9. Spit at that person.                                     | 1 | 2 | 3 | 4 | 5 |
| 10. Spread false or negative information about that person. | 1 | 2 | 3 | 4 | 5 |
| 11. Say I am going to hurt that person.                     | 1 | 2 | 3 | 4 | 5 |
| 12. Secretly plan to interfere with that person's life.     | 1 | 2 | 3 | 4 | 5 |
| 13. Push or shove that person.                              | 1 | 2 | 3 | 4 | 5 |
| 14. Say bad things about that person behind their back.     | 1 | 2 | 3 | 4 | 5 |
| 15. Call that person names.                                 | 1 | 2 | 3 | 4 | 5 |

| 1     | 2      | 3         | 4     | 5      |
|-------|--------|-----------|-------|--------|
| never | seldom | sometimes | often | always |

**When I feel upset or angry with someone, I am likely to...**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 16. Try to socially alienate that person (persuade others not to spend time with that person) | 1 | 2 | 3 | 4 | 5 |
| 17. Steal that person's personal belongings   | 1 | 2 | 3 | 4 | 5 |
| 18. Share that person's secrets with someone else.  | 1 | 2 | 3 | 4 | 5 |
| 19. Tease that person.  | 1 | 2 | 3 | 4 | 5 |
| 20. Criticize that person behind their back.  | 1 | 2 | 3 | 4 | 5 |
| 21. Wrestle that person down to the ground.   | 1 | 2 | 3 | 4 | 5 |
| 22. Criticize that person's physical appearance.  | 1 | 2 | 3 | 4 | 5 |
| 23. Grab that person.   | 1 | 2 | 3 | 4 | 5 |
| 24. Try to persuade others to dislike that person.  | 1 | 2 | 3 | 4 | 5 |

Appendix Q

*Rapid Risk Assessment for Sexual Offense Recidivism (Hanson, 1997)*

---

1. Offender has ever had a male victim
2. Prior sex offenses
3. Offender age
4. Offender has an unrelated victim

## Appendix R

### Request for Correctional Staff Cooperation in Participant Recruitment

---

My name is Heather Moulden and I am a doctoral student from the University of Ottawa. I am conducting research for my dissertation, under the supervision of Dr. Firestone, which examines differences between offenders in how they think, act, and feel. The reason I have approached you today is to request your assistance.

There are particular characteristics of those offenders I am interested in meeting with. Because these individuals have not consented for me to access offender files and thus information about such characteristics, I am wondering if you will prepare a list of eligible participants, and inquire about their willingness to meet with me to discuss their participation in the study, and consent if they wish.

The eligibility requirements and a recruitment script will be provided to you. (Appendix A).

If you are interested and willing to assist me you can contact me at

by email at

Appendix S

Research Recruitment Script to be Read by Correctional Staff to Eligible Inmates

**Eligible inmates:**

- Men who can read and write English at least well enough to complete assessment questionnaires in English without assistance **AND**
- Men who have **NEVER** been charged with a sexual offence **OR**
- Men who are currently serving a sentence for a sexual offence against a child who was younger than 14-years-old at the time of the offence.
  - These men have not previously participated in a treatment program in a federal institution

**Would you be willing to participate in a psychology study conducted by a student at the University of Ottawa?** Her name is Heather Moulden and she is completing her PhD at the University of Ottawa. The purpose of the research is to compare men who have not committed a sexual offence and men who have committed a sexual offence. We want to see if there are differences in how they think, feel and act.

The researcher needs information from men who have **NOT** committed sexual offences and from men who have been arrested for sexual offences. Just because you participate in the study, it does not mean that you are a sexual offender; she recognizes this.

**If you are willing to participate in the study, you will be asked to complete some questionnaires. It will take approximately 1 1/2 hours of your time. She will also request access to your institutional files.**

**Would you be interested in participating? (If yes) She will ask you to read and, if you like, to sign the consent form; one copy is for you to keep and the other she will keep. She will review the consent form with you and you will be able to ask her any questions you have about the study.**

Appendix T

Research Recruitment Script to be Read by Researcher to Eligible Inmates

---

**Eligible inmates:**

- Men who can read and write English at least well enough to complete assessment questionnaires in English without assistance **AND**
- Men who have **NEVER** been charged with a sexual offence **OR**
- Men who are currently serving a sentence for a sexual offence against a child who was younger than 13-years-old at the time of the offence.
  - These men have not previously participated in a treatment program in a federal institution

**Would you be willing to participate in my psychology study? I am a student at the University of Ottawa.** The purpose of the research is to compare men who have not committed a sexual offence and men who have committed a sexual offence. We want to see if there are differences in how they think, feel and act.

We need information from men who have **NOT** committed sexual offences and from men who have been arrested for sexual offences. Just because you participate in the study, it does not mean that you are a sexual offender; we recognize this.

**If you are willing to participate in the study, you will be asked to complete some questionnaires. It will take approximately 1 1/2 hours of your time.**

**Would you be interested in participating? (If yes) I'll ask you to read and, if you like, to sign the consent form; one copy is for you to keep and the other is for me to keep.**

Appendix U

Closing Statements (Read to Participants by Researcher)

---

(Once participant has completed final task.) **You have completed everything.**

**Thank you very much for your participation in this study. Once this research is completed, I can send you a brief description of the study and results. This should be ready by December 2006.**

(For incarcerated participants) **Would you like me to send you one at that time?** (If yes, record full name and FPS number on separate list so that the offender can be located later.)

(Provide participant with debriefing form).

**Do you have any questions about the study?** (Researcher answers any questions.)

**Thank you very much for your help with my research.**

## Appendix V

Debriefing Form Presented to Incarcerated Participants

---

This study is being carried out by Heather Moulden, under the supervision of Dr. P. Firestone in fulfillment of a doctorate degree in Clinical Psychology at the University of Ottawa. Due to the sensitivity of the issues surrounding the victimization of women and children, if participation in this study has triggered any emotional discomfort, it is important to discuss them with someone you trust. If you wish you may contact Dr. P. Firestone at the number below, (or the institutional psychologist).

The purpose of this study is to investigate the role of social competence in aggressive behaviour. It is believed that in order to commit aggressive acts, the level of social intelligence, and empathy for victims, and thoughts about a victim group influence the expression of that aggression as either sexual or non-sexual.

The purpose of the research is to combine the results, and look at trends and patterns. Therefore, no names are reported, and the scores for any individual person are not examined, nor given to anyone. No participant will be identified individually.

-----

If you have any further question, concerns, or criticisms regarding this study, please contact Dr P. Firestone at (613) 562-5800, ext. 4444. If you have any continuing concerns, you may contact **Protocol Officers for Ethics in Research, 550 Cumberland Street, Room 159, (613) 562-5841 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca)**, or the Warden of your Institution.

Appendix W

Phone Script for Recruitment of Community Participants

---

In response to inquiries about the recruitment classified...

**Thank-you for calling about the study. Let me first provide you with some additional information about the study. This research is being conducted by Heather Moulden, a doctoral student at the University of Ottawa, under the supervision of Dr. Phil Firestone. The purpose of the study is to investigate differences in thoughts, feelings, and behaviours, between men who have committed a sexual offence, and those men, who have not. Therefore we are asking men from the community to complete a series of questionnaires, and those group responses will be compared to incarcerated men convicted of a sexual offence.**

**Should you decide to attend, the researcher will review the consent form and questionnaires with you in more detail. Do you have any questions about the study at this time?**

**Are you interested in scheduling an appointment to meet with the researcher, and if you choose, to participate in the study? Scheduling an appointment does not mean you have consented to participate in the research.**

If the potential participant is not interested the call taker will thank him for his time and end the call.

If the potential participant is interested, the call taker will then offer appointment times:

**We have appointments available \_\_\_\_\_ or \_\_\_\_\_**

**What time would work best for you?**

The call taker will schedule and confirm the appointment:

**The appointment is scheduled for \_\_\_\_\_ p.m. on \_\_\_\_\_. Just a reminder that should you choose to participate, the questionnaires will take you approximately 1.5 hrs. to complete.**

The call taker will provide directions if necessary.

**Thank-you for your interest in the study and we will see you on \_\_\_\_\_.**

## Appendix X

Debriefing Form Presented to Nonincarcerated/Nonoffender Participants

---

This study is being carried out by Heather Moulden, under the supervision of Dr. P. Firestone in fulfillment of the doctoral degree in Clinical Psychology at the University of Ottawa. Due to the sensitivity of the issues surrounding the victimization of women and children, if participation in this study has triggered any emotional discomfort, it is important to discuss them with someone you trust. If you wish you may contact Dr. P. Firestone at the number below.

The purpose of this study is to investigate the role of social competence in aggressive behaviour. It is believed that in order to commit aggressive acts, the level of social intelligence, and empathy for victims, and thoughts about a victim group influence the expression of that aggression as either sexual or non-sexual.

The purpose of the research is to combine the results, and look at trends and patterns. Therefore, no names are reported, and the scores for any individual person are not examined, nor given to anyone. No participant will be identified individually.

-----

If you have any further question, concerns, or criticisms regarding this study, please contact Dr P. Firestone at (613) 562-5800, ext. 4444. If you have any continuing concerns, you may contact **Protocol Officer for Ethics in Research, 550 Cumberland Street, Room 159, (613) 562-5841** or [ethics@uottawa.ca](mailto:ethics@uottawa.ca).