PSYCHOLOGICAL AND PERSONALITY CORRELATES OF THE

MASSACHUSETTS TREATMENT CENTRE

CLASSIFICATION SYSTEM FOR RAPISTS

by

Shauna Marie Darcangelo

B.A. (Honours), University of Calgary, 1987

M.Sc., University of Calgary, 1989

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APPROVAL

Name: Shauna Marie Darcangelo

Degree: Doctor of Philosophy (Psychology)

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Examining Committee:

    Chairperson: Dr. Raymond Koopman, Associate Professor

Dr. Robert Ley, Associate Professor
Senior Supervisor

Dr. David Cox, Associate Professor

Dr. Stephen Hart, Associate Professor

Dr. Christopher Davis, Associate Professor
Internal External Examiner

Dr. Adelle Forth
Assistant Professor
Carleton University
External Examiner

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Abstract

The purpose of the present research was to investigate several proposed determinants of sexual aggression towards adult females, including motivational aims and needs, psychopathy, expressed aggression, and other personality characteristics. A sample of 151 institutional files were reviewed and classified according to the Massachusetts Treatment Center's Revised Rapist Typology (MTC:R3, Knight & Prentky, 1990b) into one of five subtypes - opportunistic, pervasively angry, sexual, sadistic or vindictive. These subtypes, along with the MTC:R3 dimensions used to arrive at these subtypes, were compared on several measures: Hare's Revised Psychopathy Checklist (PCL-R; Hare, 1991), the MMPI/MMPI-2 (previously administered) and the Rorschach (administered to a subset of 40 subjects). Overall, the results indicated clear relationships between the MTC:R3 dimensions/subtypes and psychopathy. The MTC:R3 dimensions of expressive aggression, planning, unsocialized behaviour, and pervasive anger were all significantly correlated with PCL-R Total and/or Factor scores. In addition, the MTC:R3 subtypes of sadistic and pervasively angry scored highest on psychopathy, while the sexual rapists scored the lowest. The five MTC:R3 subtypes were not distinguishable in terms of five previously identified MMPI/MMPI-2 profiles. Although primarily exploratory, Rorschach results indicate a relationship between the MTC:R3 dimensions of expressive aggression and sadism and several Rorschach aggression scores. The implications of these results are discussed, including the implications for management and treatment of rapist subtypes, suggestions for future research and limitations of the current study.

Acknowledgements

Table of Contents

List of Tables

Personality and Psychological Correlates of the

Massachusetts Treatment Centre Classification System for Rapists

Although sexually deviant behaviour has existed throughout

history, sexual aggression has become a major problem confronting

society today. Recent statistics suggest increasing and alarmingly high

frequencies of sexual aggression against women. In the United States, it

is estimated that a woman is raped every six minutes (Federal Bureau of

Investigations, 1989; cited in Biden, 1993). A recent Canadian survey

reported that 39% of Canadian women have been sexually assaulted since

the age of 16 (Statistics Canada, 1993). In samples of nonclinical

female populations, 20-30% report having been victims of sexual

aggression (Koss, Gidycz, & Wisniewski, 1987; Koss & Oros, 1982;

Rapaport & Burkhart, 1984). While in samples of male college students,

15-25% report having engaged in some level of sexual aggression towards

women (Malamuth, Sockloskie, Koss, & Tanaka, 1991). Although prevalence

rates are highly dependent on how sexual aggression is defined, most

studies confirm that sexual aggession against women is a major problem

in today's society.

Society's increasing awareness of the seriousness and widespread

occurrence of sexual assault against women has, in part, been

responsible for the substantial growth in the number of sex offenders

currently under federal and provincial jurisdiction (Robinson, 1989).

Since 1990, the growth rate of the total sex offender population under

federal jurisdiction has increased four-fold (Motiuk & Deurloo, 1993).

In 1992, there were approximately 3700 male sex offenders in the federal corrections system alone (Motiuk & Deurloo, 1993). Although Motiuk and Deurloo (1993) did not report specific percentages of sex offender type, based on previous findings (Porporino & Motiuk, 1991) it can be inferred that approximately 40% of these offenders committed sexual assault against adult females. Sexual assault is generally defined as 'attempted or actual nonconsensual oral, anal, or vaginal penetration, obtained by force, or by threat of bodily harm, or when the victim is incapable of giving consent' (Searles & Berger, 1987).

Considering the high prevalence rate of sexual aggression towards women, a major problem lies in the current lack of knowledge regarding the causes and determinants of sexual aggression. Because prevention and intervention programs rely on this limited knowledge base, "research programs aimed at clarifying the causes of such assaults, at identifying the constellations of problems that are common to these perpetrators, at designing prevention and intervention strategies, and at enhancing the validity of dispositional decisions for convicted or admitted offenders" are needed (Prentky & Knight, 1991, p. 643).

The purpose of the current study is to investigate several proposed determinants of sexual aggression. Motivational aims and needs of rapists will be investigated using the Massachusetts Treatment Centre Rapist Typology, Version 3 (MTC:R3). Psychopathy and other personality characteristics associated with rapist subtypes will be investigated using The Hare Revised Psychopathy Checklist and the Minnesota Multiphasic Personality Inventory (MMPI and MMPI 2). A second,

preliminary study, will examine the use of Rorschach indices to investigate sexual aggression.

Identifying Rapist Subtypes

Historically, sex offenders were considered a highly homogeneous group of individuals (Mayer, 1988). Both passive offenders, such as exhibitionists and voyeurs, and active offenders, such as rapists and pedophiles, have been grouped together and jointly classified as sexual deviates (e.g., Barlow, Abel, Blanchard, Bristow, & Young, 1977) or as sex offenders (e.g., Hinton, O'Neill, & Webster, 1980). This assumption of homogeneity has resulted in considerable inconsistency in research findings (Prentky & Knight, 1991).

More recently, investigators have begun to recognize the importance of distinguishing between various groups of sex offenders. For instance, many researchers have investigated the differences in demographic, background, diagnostic and personality characteristics between rapists and pedophiles (Baxter, Marshall, Barbaree, Davidson, & Malcolm, 1984; Quinsey, Arnold, & Pruesse, 1980; Walters, 1987). The likelihood of identifying true differences is increased when the various groups of sex offenders are distinguished.

Within each group cf sex offenders, however, there still remains a tendency to view the group as homogeneous. For instance, rapists are frequently viewed as a homogeneous class of offenders, despite extreme differences:

> Offenders with widely varying family and
> developmental experiences, psychological
> profiles, psychiatric diagnoses, and criminal
> histories have been treated as a cohesive,
> homogeneous group by virtue of the presence of
> sexual coercion in their offenses. Their sexual
> offenses have varied markedly with respect to
> numerous features, such as location and time,
> frequency, the sex and age of their victims, the
> degree of planning in their crimes, the nature
> of the sexual acts in their offenses, and the
> amount of violence or sadism involved (Prentky &
> Knight, 1991, p.643).

As with failing to distinguish between groups of sex offenders, failing

to distinguish between various subgroups within a group of sex offenders

has resulted in considerable inconsistency in the research.

In an attempt to examine the apparent heterogeneity of rapists,

several clinical, psychometric and statistical strategies have been

utilized. These strategies have included the development of taxonomic

models, the application of various clustering algorithms and the use of

multivariate regression models. The success of each of these strategies

depends on the relevance and quality of the dimensions that have been

chosen for the model. The proposed study is based on a taxonomic system

for rapists developed at the Massachusetts Treatment Center (Knight &

Prentky, 1990; Prentky, Knight & Rosenberg, 1988; Knight & Prentky,

1987; Knight, Rosenberg, Schneider, 1985). The Massachusetts Treatment

Center (MTC) taxonomy for Rapists was developed using two distinct

approaches, one rational-deductive and the other empirical-inductive.

The rational-deductive approach involved the comparison of

available typologies of sexual offenders to determine whether specific

types of offenders were included in the various classification systems.

The empirical-inductive approach involved the use of cluster analyses to identify groups on the basis of offenders' similarities and differences on a specific set of attributes. Before describing the MTC Taxonomy for Rapists, a brief review of previously proposed classification schemes will be presented.

Proposed Typologies for Rapists

Several investigators have proposed typologies for rapists which have been based on the salient characteristics of purported prototypic types (Guttmacher & Weifhofen, 1952; Kopp, 1962; Gebhard, Gagnon, Pomeroy, & Christenson, 1965; Cohen, Seghorn, & Calmas, 1969; Rada, 1978; Groth, Burgess, & Holmstrom, 1977; Seghorn & Cohen, 1980). In 1952, Guttmacher and Weihofen proposed the first typology for rapists. They described three types of rapists: True Sex Offender, Sadistic Rapist and the Aggressive Offender. For the true sex offender, the aim is primarily sexual with the offense being an explosive expression of a pent-up sexual impulse. In contrast, the aim of the sadistic rapist is aggression. The final group, the aggressive offender, is composed of offenders for whom rape is an undifferentiated part of a generic criminal record.

Kopp (1962) dichotomized rapists on the basis of whether the offense behaviour was viewed as ego-dystonic or ego-syntonic. The Type I, Compliant group was composed of rapists whose behaviour resulted from a break in the individual's character defense. These individuals tended to experience guilt and remorse, and often expressed concern for the

victim after the assault. In contrast, rapists classified as Type II,

Aggressive Psychopath, were characterized as unempathic, cold, and

without the experience of guilt.

Gebbhard, Gagnon, Pomeroy and Christensen (1965) studied 1,356 sex

offenders and distinguished seven types of rapists. In order of

frequency, they included: (1) Assaultive Sadistic: characterized by the

presence of unnecessary violence, such that sexual activity alone was

insufficient to gratify the rapist's needs; (2) Amoral Delinquent:

characterized by a general failure or unwillingness to heed social

controls and a callous disregard for the rights of others; (3) Drunken:

characterized by their intoxicated state during the offense, (4)

Explosive: individuals whose offense appeared as unexpected, atypical

departures from generally nonaggressive lifestyles; and (5) Double-

Standard: characterized as less antisocial than the amoral delinquent

group, these offenders hold the view that moderate threats or force are

a justifiable means to achieving sexual intercourse. These five groups

accounted for about two-thirds of their sample. The remaining one-third

was composed of a sixth group consisting of individuals whose sexual

offense was likely the result of mental deficiency or psychosis, and a

seventh group that the authors described as "hybrids of the five groups

previously identified".

The MTC Taxonomy for Rapists was initially based on the

classification schemes developed by Cohen et al. (1969; Seghorn & Cohen,

1980). Cohen, Seghorn & Calmas, (1969) argued that the motivational aim

for rapists was either primarily aggressive (i.e., to humiliate, defile

or injure) or primarily sexual (i.e., a relative absence of violence and brutality). Based on these motivational components, Cohen et al. identified four types of rapists: (1) Compensatory: primarily sexual; (2) Displaced-Aggression: primarily aggressive; (3) Sex-Aggression Defusion (Sadistic): sexual and aggressive feelings are synergistically intertwined; and (4) Impulsive (Exploitative): assault is predatory and neither sexual nor aggressive motives appear to be important.

Rada (1978) identified five types of rapists: (1) Psychotic: characterized by exceptionally bizarre and violent behaviour, (2) Situational Stress: characterized by an agitated depression and post-assault feelings of shame and guilt, (3) Masculine Identity Conflict: characterized by feelings of inadequacy regarding masculinity, machismo style of relating and acute sex role identity conflicts, (4) Sadistic: characterized by the humiliation and degradation of the victim, as well as premeditation of the assault, and (5) Sociopathic: characterized by a history of generic antisocial conduct. In contrast to the other four types, less dynamic meaning is attached to the rape by the sociopathic offender.

A final typology was proposed by Groth, Burgess and Holmstrom, (1977). They suggested that rape was an expression of either power or anger, but not an expression of sexual desire. They also identified four types of rapists: (1) Power-Assertive: rape as an expression of virility, mastery and dominance; (2) Power-Reassurance: rape as an attempt to resolve doubts about sexual adequacy and masculinity; (3) Anger-Retaliation: rape as an expression of hostility and rage towards

women; and (4) Anger-Excitation: rapist obtains pleasure and excitement by punishing, hurting and torturing his victim.

Comparing all of these typologies, Knight et al., (1985) concluded that four dimensions are typically considered critical for differentiating among rapists: the amount of aggression; the presence or absence of antisocial personality; amount of sadism; and degree of sexualization. The dimension of aggression is typically used to distinguish those offenders who use "instrumental" force (i.e., aggression does not exceed what is necessary to force victim compliance) from those offenders who use extreme force. The dimension of antisocial personality typically refers to the presence of a history of impulsive, antisocial acting out. The dimension of sadism has been the most difficult to operationalize. Generally, researchers look for evidence of a synergistic relationship between sexual and aggressive drives (i.e., as sexual arousal increases, aggressive feelings increase and increases in aggressive feelings heighten sexual arousal). Finally, the dimension of sexualization is used to distinguish those offenders whose primary motive is of a sexual nature from those whose primary motive is of a different nature (e.g., assertion of power).

Consideration of these four dimensions led to the identification of four types of rapists (i.e, compensatory, impulsive/exploitative, displaced anger and sex-aggression defusion/sadistic) by Cohen et al. (1969; Seghorn & Cohen, 1980). Because these four types of sexual offenders were representative of the types described by the various classification systems, they were used as preliminary models by the

researchers at the Massachusetts Treatment Center for their deductive
strategy.

The amount of aggression, the presence or absence of antisocial
personality, sadism and sexualization were also selected as variables
for their inductive strategy (i.e., cluster analyses), along with other
variables that have been shown to have some discriminating potential in
the empirical studies of sexual offenders (Knight et al., 1985; Prentky
& Knight, 1991). These latter variables included developmental history,
social competence, irrational attitudes, cognitive distortions, control
and dominance as well as disinhibitors (i.e., alcoholism, psychosis,
organicity/senility and mental retardation).

The Massachusetts Treatment Center (MTC) Typology for Rapists

As mentioned previously, the four types in the Cohen et al. (1969)
system became the initial focus of the MTC researchers because they
represented the most commonly proposed types in the various
classification systems. Although the prevalence of these types in the
literature suggested their clinical salience, very few studies had
actually investigated the empirical validity of these types.

Some years ago now, Cohen, Seghorn and Calmas (1969) conducted one
of the few systematic attempts to apply and validate a sex offender
classification system. They sought to determine whether level of social
functioning could distinguish four proposed subtypes of rapists (i.e.,
displaced-aggression, compensatory, sex-aggression-defusion and impulse
types). They hypothesized that because "the displaced-aggression type

have demonstrated developmentally higher levels of social adaptation,

and the sexual acts appear to be reactive and are experienced as

dystonic, ... they would show the highest levels of social skills among

the sexual offenders" (p.252). They also predicted that the impulse

type would show few social skills and have little social success because

their sexual offenses seem to represent characteristic ways of dealing

with the social world. They are "described as impulse ridden and self-

centered with no ability to form meaningful object relationships and are

frequently diagnosed in classical nosology as psychopaths or sociopaths"

(p.254).

In the Cohen et al. (1969) study, patients were asked to provide

the names of three patients whom they would and would not prefer to

associate with in a variety of activities or have as a patient

government representative. The results indicated that the subtypes did

differ in their level of social functioning. The displaced-aggression

rapists were consistently ranked highest in social efficacy, while the

sex-aggression-defusion rapists were ranked the lowest. The

compensatory group showed the greatest amount of variability of social

effectiveness. They were found to be fairly isolated and deficient in

social understanding, but they were also seen as less offensive by their

peers. Given that these individuals are hypothesized to be

interpersonally passive and submissive, these results were not

surprising.

The results did not support the researchers' second prediction

that the impulse rapists would rank the lowest in social efficacy. They

were found to have some social skills and were not as socially

insensitive as expected. In general, therefore, this study provided

initial support for some hypothesized differences between the various

subtypes in social competence. However, it also failed to corroborate

other hypotheses. Due to several methodological weaknesses, the

conclusions that can be drawn from this study regarding the validity of

the classification scheme are limited. These weaknesses include: the

absence of any assessment of interrater reliability, the failure to

specify the criteria used in classifying subjects, small sample size,

and the failure to specify the representativeness of the sample of

offenders studied (Knight, Rosenberg, & Schneider, 1985).

In conclusion, although some initial support for the descriptive

validity of Cohen et al.'s typology was provided by this study, a great

deal more research was needed to examine the empirical validity of all

of the typologies. For instance, in addition to social competence, many

other variables are presumed to characterize the types. Additionally,

none of the typologies have been assessed for their predictive validity

and their generalization (Knight, Rosenberg, & Scheider, 1985). An

adequate assessment of the empirical validity of these classification

systems is needed before these systems can be considered for clinical

application.

Indirect evidence in support of the validity of this

classification system came from a review of the empirical literature.

Knight et al. (1985) found that type-defining dimensions (e.g., amount

of aggression, impulsivity, etc.) were found to discriminate rapists

from normal subjects or other criminal or pathological groups and often

covaried with important criterion behaviours or other identified

discriminators. For instance, several studies found a positive relation

between the proclivity to antisocial behaviour and the likelihood of

aggressive sexual behaviour (Rapaport & Burkhart, 1984; Malamuth, 1986;

and Lisak & Roth, 1988). Thus, the MTC classification system appeared to

be a step in the right direction. The next step in the development of

the MTC Taxonomy for Rapists was to investigate the empirical

reliability and validity of the classification system developed by Cohen

et al. (1969; 1980).

MTC:R1

An initial pilot study assessed interrater reliability for the

four subtypes: compensatory, impulse, displaced aggression and sex-

aggression defusion. Analyses of the interrater agreement yielded

unsatisfactory results (i.e., roughly 40 percent). Further analysis

revealed that the majority of discrepancies were confined to the

discrimination between compensatory and impulsive types (compensatory

tended to be classified as impulsive). For the most part, this

difficulty was due to the problem of defining impulsivity. Compensatory

rapists tended to be compulsive and routinized in their sexual assaults,

but evidenced either impulsive or nonimpulsive lifestyles. Thus, the

authors recommended that two aspects of impulsivity be considered:

impulsivity in sexual offense style and lifestyle impulsivity.

MTC:R2

With the introduction of lifestyle impulsivity, the basic organization of the typology was reconceptualized. Now, in addition to the meaning of both sexual and aggressive motives in all sexual offenses, the role of impulsivity in the life history of the individual was also considered. What evolved was a hierarchical, three-step decision tree structure that required decisions regarding (1) the meaning of aggression in the offense, (2) the meaning of sexuality in the offense, and (3) the relative amount and quality of impulse control in the offender's life history.

The first decision regarding meaning of aggression divided offenders into two groups: Instrumental and Expressive. Offenders in the instrumental group used only the amount of aggression necessary to attain compliance from the victim, while expressive offenders exhibited aggression that clearly exceeded what was necessary to force compliance.

At the second step, the meaning of sexuality in the offense was considered. The instrumental group was subdivided into compensatory and exploitative types depending on whether the assaults were primarily sexually or opportunistically motivated. The expressive group was subdivided into displaced anger and sadistic types depending on whether anger or sadistic motivations were prevalent.

Finally, at the third step, each of the four subtypes was divided into low and high impulsivity groups. This judgment concerned the presence of a pervasive and enduring pattern of poor impulse control and

irresponsible behaviour in the offender's life. Both preadolescent, adolescent and adult behaviour was considered in arriving at a decision.

Prentky, Cohen and Seghorn (1985) investigated the reliability of each decision in the MTC:R2. They had two raters (experienced clinicians) read the clinical files of 108 rapists determined to be sexually dangerous and committed to a facility designed for the treatment of sexual offenders. The Treatment Center population is characterized as follows: (A) Racially: caucasian, 87%, black/hispanic, 13%; (B) Age: average age at present=36, average age at commitment=30; (C) IQ: average=98.63.

Each file contained six major categories of information: demographic, alcohol history, family and developmental history, criminal history, clinical symptoms and major life events. Each offender was classified into one of the four types (compensatory, exploitative, displaced anger and sadistic) and were classified as either high or low in impulsivity. When there was disagreement in primary subtype, the raters met to resolve discrepancies and reach consensus. If a consensus could not be reached, a third clinician made an independent rating. If this judgment failed to promote a consensus of agreement, the case was omitted, but such exclusions occurred rarely (i.e., 8 out of 108 cases).

Criteria for Assignment. In the compensatory case, the sexual offense is hypothesized to be a defense against low self-esteem and pervasive feelings of inadequacy. The offender's sexual behaviour is thought to be an expression of sexual fantasies. In order for the offender to be classified as compensatory, the presence of

verbalizations aimed at self-reassurance and self-affirmation, and behaviours reflecting a person-oriented relationship with the victim were required. Evidence supporting a person-oriented relationship included the offender's apparent concern for the victim's welfare, comfort and "enjoyment" of the sexual experience.

In contrast, the offense of the exploitative rapist is hypothesized to be an impulsive, predatory act, determined more by contextual and immediate antecedent factors than by fantasy. The assignment of an exploitative subtype was based on two criteria: (1) a callous indifference to the welfare and comfort of the victim, and (2) the presence of no more force that is necessary to gain the compliance of the victim.

In the displaced anger case, sexual behaviour is viewed as a means of physically harming, humiliating, degrading, or defiling the victim. The assignment of a displaced anger type was based on four criteria: (1) the presence of a high degree of nonsexualized aggression or rage, expressed though verbal and physical assaults that clearly exceeded what was necessary to force the compliance of the victim, (2) clear evidence, in verbalizations or behaviour, of the intent to demean, degrade, or humiliate the victim, (3) no evidence that aggression was eroticized or that sexual pleasure was derived from injurious acts, and (4) injurious acts were not focused on parts of the body that have sexual significance.

Finally, for the sadistic offender, sexual behaviour is thought to be an expression of sexual-aggressive fantasies. The assignment of a

sadistic subtype was made when the level of aggression or violence clearly exceeded what was necessary to force compliance of the victim and there was explicit, unambiguous evidence that aggression was eroticized: either it was apparent that the offender derived sexual pleasure for the injurious acts or the injurious acts were focused on parts of the body that have sexual significance.

Reliability was assessed using the independent preconsensus ratings. The results indicated some improvement over the MTC:R1 with approximately 60 percent agreement among raters. However, this level was obviously far from acceptable. In an attempt to improve the reliability of case assignments, the diagnostic disagreements were analyzed. This analysis revealed that the majority of assignment problems were associated with Decision 2. In particular, raters had difficulty distinguishing the exploitative type from the other types, especially the compensatory type.

Decisions 1 and 3 also suffered from reliability problems. Because the distinction between instrumental and expressive aggression required clinical inferences about internal motivational states be made on the basis of sometimes ambiguous behavioural data, it is not surprising that a high level of reliability was not found. With regards to a decision regarding impulsivity, reliability was especially problematic for those offenders classified as instrumental. Additionally, too great a proportion of rapists were identified as high in impulsivity (approximately 75%). Previous research suggested that approximately 41% of rapists are usually classified as high in

impulsivity (Knight, Fleming, Ames, Straus, & Prentky, 1989, cited in

Knight & Prentky, 1990).

Additional problems with the MTC:R2 were revealed in several

follow-up studies using cluster analyses and path analytic approaches

(Rosenberg & Knight, 1988; Rosenberg, Knight, Prentky, & Lee, 1988;

Knight & Prentky,1987). Using the same sample of 108 sexual offenders,

Knight and Prentky (1987) addressed the issue of taxonomic validity by

comparing the four types on a variety of measures. These measures

included family variables (e.g., stability, physical and sexual abuse,

whether the offender was adopted or a foster child), developmental

variables (e.g., running away, juvenile corrections history, whether the

subject was a victim of sexual assault), educational/ occupational

variables (e.g., grade level attained, number of repeated grades,

problems in school, employment stability), adulthood variables (e.g.,

peer interaction, heterosexual/homosexual bonding, drinking, general

aggression), and paraphilia variables (e.g., exhibitionism, incest,

fetishism, voyeurism).

The results of this study indicated that consistent differences in

developmental course and adult adaptation were shown by the four types

of rapists. The compensatory type evidenced the least amount of both

sexual and general aggression, showed the least evidence of

childhood/adolescent impulsivity, exhibited a great deal of paraphilic

symptomotology (along with sa lists), evidenced the best heterosexual

adaptation in adulthood, achieved the highest employment skill level and

had the most benign developmental histories. The exploitative type

evidenced the greatest childhood/adolescent impulsivity (i.e., troublesome acting out behaviour) and showed high unsocialized aggression as adults, but showed less sexual aggression as adults than did the displaced anger and sadistic offenders. The displaced anger group experienced the most chaotic, unstable childhoods, but they did not differ significantly from the exploitative and sadistic groups in their unsocialized general aggression scores. Finally, the sadistic group evidenced poor behavioural control, low frustration tolerance, a high level of general aggression as adults, came from more sexually deviant families, manifested more paraphilias than both the displaced anger and exploitative types, and had the lowest level of heterosexual pair bonding as adults.

Although some of the differences that did emerge were in the expected direction, others directly contradicted speculations in the clinical literature. For instance, given that the clinical literature tends to characterize the compensatory type primarily by passive-dependence, social and sexual inadequacy, and a sense of failure at fulfilling a masculine self-image (Prentky et al., 1985), they would not have been predicted to show the best heterosexual development or achieve the highest employment skill level.

Unexpected results were also found for the displaced anger group. Traditionally, these rapists have been depicted as socially competent offenders with the least problematic developmental histories. In contrast, Knight and Prentky (1987) found that offenders classified in this group experienced the most chaotic, unstable childhoods, with the

majority coming from single-parent homes and foster homes. They also

showed similar patterns of unsocialized general aggression as the

exploitative and sadistic groups.

Rosenberg and Knight (1988) used cluster analysis to derive

subtypes of rapists using five dimensions: substance use, life

management skills, antisocial behaviour, sexual aggression and offense-

related impulsivity. Their results led the researchers to question the

homogeneity of several of the rapist subtypes. For instance, the

compensatory group was shown to consist of two different types of

individuals. The first type was consistent with the prototypic

description of the compensatory type (i.e., low in social competence),

while the second, more frequent type, was characterized by high social

competence. The displaced anger group also split into two clusters:

impulsive aggressives and low competence aggressives. The former group

showed similarities to the clinical description of the displaced anger

type (i.e., crime committed impulsively with significant aggression) but

did not show the predicted low lifestyle impulsivity or high social

competence. The low competence aggressives exhibited the low incidence

of antisocial behaviour expected by the displaced anger type, but showed

poor life management skills and tended to plan the crimes more than was

expected. In contrast to the compensatory and displaced anger types,

offenders classified as exploitative did not cohere into a single

cluster, while a reasonable facsimile of the sadistic type was not

recovered.

The results of Rosenberg and Knight (1988) also suggested that the MTC:R2 may be neglecting the important role played by social competence. In the compensatory, exploitative and displaced anger groups, social competence appears to identify distinguishable subtypes.

Rosenberg, Knight, Prentky, and Lee (1988) used a path analytic approach to relate family, juvenile and adult histories to the main decisions of subtype assignment. Their results indicated problems in validity with the instrumental/expressive distinction. They found that the only component that significantly discriminated between expressive and instrumental aggression was alcohol abuse in adulthood. Thus, rather than differentiating between the offender's intent to express rage or gain sexual gratification through aggression as opposed to gaining compliance only, the instrumental/expressive distinction may only reflect the role of alcohol in the actual amount of violence perpetuated. Hence, although a distinction between instrumental and expressive aggression may make intuitive sense, its unreliability makes it a major source of error in the classification system.

After reviewing the available data on the MTC:R2, Prentky, Knight and Rosenberg (1988) concluded that although the major distinctions in the MTC:R2 had some discriminatory power, it was evident that system needed to be revised and restructured in certain ways. They suggested the following changes:

1. Create a separate axis with which to examine lifestyle impulsivity.
2. Precisely define childhood and adulthood impulsivity.
3. Incorporate social competence as a discriminator.

4. Create a separate axis that will focus on the sexual
    offense.
5. Replace Instrumental/Expressive Aggression with the
    Degree of Physical Injury sustained by the victim.
6. Provide categories for Displaced Anger and Sadistic
    rapists who cause a low degree of physical injury.
7. Provide a category for an offender who causes a high
    degree of physical injury but evidences none of the
    characteristic displaced or sadistic motives.

Revising the MTC:R2: The Development of the MTC:R3

Difficulties with the monothetic structure of the MTC:R2 (i.e.,

new types that had little empirical or clinical reality) led the

developers of the MTC classification system to consider a polythetic

structure for the MTC:R3. With this system, the overall similarity

among members is assessed simultaneously on critical discriminating

variables. Thus, rather than the sequential application of

hierarchically-embedded general discriminations, each type is defined by

a series of specific criteria.

Nine profile types were identified on the basis of cluster

analyses: (1) Opportunistic- High Social Competence, (2) Opportunistic

Low Social Competence, (3) Pervasively Angry, (4) Sadistic- Overt, (5)

Sadistic- High Social Competence/Muted, (6) Nonsadistic- High Social

Competence, (7) Nonsadistic- Low Social Competence, (8) Vindictive- Low

Social Competence, and (9) Vindictive- High Social Competence (Knight &

Prentky, 1990). The MTC:R3 classification system describes four

motivations for rape: opportunity, pervasive anger, sexual gratification

and vindictiveness. It is hypothesized that these four motivational

components are related to enduring behavioural patterns that distinguish

particular groups of offenders.

For offenders classified as opportunistic, the sexual assault

appears to be based more on situational and immediately antecedent

factors than by sexual fantasy. Their impulsive, unplanned, predatory

assault appears to be just another instance of poor impulse control.

These offenders show extensive histories of unsocialized behaviour in

multiple domains and they do not show any evidence of gratuitous force

or aggression.

The pervasively angry rapist's primary motivation appears to be

undifferentiated anger. In their assaults, they show evidence of

gratuitous aggression even in the absence of victim resistance. There

is no evidence (phallometrically assessed) that their assaults are

driven by preexisting fantasies, and their rage does not appear to be

sexualized. Indeed, there is ample evidence that their anger is

directed towards both men and women (i.e., they also have a history of

instigating fights with or assaulting men).

Both the sadistic and nonsadistic offenders appear to be sexually

motivated. For both of these types, there is evidence of enduring

sexual preoccupation which influences the way in which their offenses

are executed. With the sadistic offender, there is evidence of poor

differentiation between sexual and aggressive drives. They typically

express a preoccupation with erotic and destructive thoughts and

fantasies. Aggression during the assault is either expressed directly

in physically damaging behaviour (overt sadistic type) or symbolically

or through covert fantasy that is not acted out behaviourally (muted sadistic type).

In contrast to the sadistic types, the nonsadistic types do not show a synergistic relationship between sex and aggression. It is hypothesized that the nonsadistic rapists manifest less interpersonal aggression in both sexual and nonsexual contexts than any other type. Their sexual fantasies and assaultive behaviours appear to "reflect an amalgam of sexual arousal, distorted 'male' cognitions about women and sex, and feelings of inadequacy about their sexuality and masculine self-image" (Knight & Prentky, 1990, p.45).

Finally, with the vindictive type, their primary motivation appears to be rage and anger directed entirely towards women. Unlike the pervasively angry types, these rapists show little or no evidence of anger directed towards men. Their sexual assaults are characterized by behaviours that are physically harming, degrading and humiliating. There is no evidence that their aggression is eroticized or that they are preoccupied with sadistic fantasies. Like the nonsadistic sexual types, the vindictive rapist shows a relatively lower level of lifestyle impulsivity.

As mentioned earlier, assignment to each type depends on a set of clearly defined behavioural criteria being met. Unlike the previous classification systems, assignment cannot occur by default. Each offender is assessed on seven dimensions:

(1) Expressive Aggression: nature of victim injury, response
   to victim resistance, acts of the offender in the offense,
   desire to humiliate the victim and evidence of expressive
   aggression in non-sexual contexts.

(2) Unsocialized Behaviour:
   (a) Juvenile: problems in grammar school, problems in
      junior high, total number of non-sexual victimless
      offenses, running away, vandalism/destruction of
      property, and fighting.
   (b) Adult: history of non-prescription drug use, vandalism/
      destruction of property, fighting, assaultive
      offenses, unsocialized aggression, conduct/behavioural
      charges, owning a weapon, relation between alcohol use
      and antisocial behaviour.

(3) Social Competence: independent living and marriage/long-term
   relationship.

(4) Sexualization:
   (a) Primary: Preoccupation with sexual needs, sexually
      deviant behaviours, and sexual acts were compulsive.
   (b) Secondary: Concern with masculine image, preoccupation
      with feelings of sexual and social inadequacy.

(5) Pervasive Anger: characterized as an angry person, consistent
   pattern of verbal aggression against males and females,
   assaults, preoccupation with aggressive fantasies, and
   cruelty to animals.

(6) Sadism:
   (a) Category A: preoccupation that is both sexual and
      aggressive in nature, victim's pain/fear/discomfort
      facilitates sexual arousal, evidence of sham sadism
      in the offense, evidence of sham sadism in consensual
      sexual relationships, evidence of overt sadism in
      consensual sexual relationships, violence in the
      offense is ritualized, intercourse with victim after
      death, and mutilation of victim's erogenous zones
      after death.
   (b) Category B: violence directed at erogenous areas,
      offender burns the victim, intercourse with victim
      after victim rendered unconscious, and insertion of
      foreign objects into victim's vagina or anus.

(7) Offense Planning: degree to which offense is planned. Rated
   on scale of five ranging from detailed planning to
   impulsive offense.

The MTC:R3 was fashioned in a data-driven manner, aimed at both retaining the strengths of the previous systems and correcting its weaknesses (i.e., reliability, homogeneity and validity problems). Preliminary findings suggest that some improvement has been made, at least regarding interrater reliabilities (Prentky, personal communication, April 3, 1993). Reliabilities ranged from a low of 0.54 for offense planning to a high of 0.84 for unsocialized aggression-juvenile.

The present study will investigate the issue of whether each subgroup of rapists is associated with specific psychological and personality characteristics. Based on the characteristics of each subgroup, one would expect differences between the groups on the Psychopathy Checklist (PCL-R) and the Minnesota Multiphasic Personality Inventory (MMPI and MMPI-II). In addition, an exploratory investigation of the relationship between the above variables and the Rorschach will be conducted. Specific predictions will be discussed in the final section of the introduction.

Psychopathy

A litany of terms have been used in the literature to refer to the psychopath. The origins of psychopathy have traditionally been traced to Phillipe Pinel, a French psychiatrist who coined the term "manie sans delire" (madness without confusion) to describe patients characterized by relatively normal intellectual functions but a pronounced tendency to act violently and impulsively. Other terms used to describe the

psychopath include "moral insanity", "psychopathic inferiority" and "hysteric psychopath" (McCord & McCord, 1964). More recently, labels such as psychopath, sociopath and antisocial personality disorder have been employed, often interchangeably. However, despite the various terminologies, a general consensus exists amongst clinicians and researchers regarding the core characteristics of the psychopath:

> a glib and superficial charm; egocentricity;
> selfishness; lack of empathy, guilt, and
> remorse; deceitfulness and manipulativeness;
> lack of enduring attachments to people,
> principles, or goals; impulsive and
> irresponsible behaviour; and a tendency to
> violate explicit social norms (Hare & Hart,
> 1992).

Assessing Psychopathy: Psychopathy Checklist - Revised (PCL-R)

The theoretical basis for assessing psychopathy can be attributed to Cleckley, who wrote The Mask of Sanity (Cleckley, 1976/1941). Cleckley described 16 core characteristics for psychopathy, including superficial charm, absence of delusions, lack of remorse and shame, insincerity, poverty in major affective reactions, pathological egocentricity and poor judgment. The Hare Psychopathy Checklists (PCL, PCL-R; Hare, 1980; Hare, 1991; Hare, Hart, & Harpur, 1991) were created to empirically assess many of the characteristics described by Cleckley.

The PCL-R consists of 20 items that measure both personality and behavioural characteristics of psychopathy. Factor analysis has yielded two stable, oblique factors that correlate (on average .56) in correctional populations (Hare et al., 1990). Factor 1 measures the

affective and interpersonal traits most often associated with

psychopathy, including egocentricity, callousness, lack of empathy and

remorselessness. Factor 1 correlates with DSM-III-R's (APA, 1987)

narcissistic and histrionic personality disorders (Hare, 1991), as well

as self-report measures of narcissism and Machiavellianism (Hart & Hare,

1989; Harpur, Hare, & Hakstian, 1989). It is negatively correlated with

measures of empathy and anxiety (Hart & Hare, 1989; Harpur, Hare, &

Hakstian, 1989). Factor 2, chronic antisocial behaviour, measures the

behavioural dimensions associated with psychopathy including

irresponsibility, impulsiveness, criminal versatility, parasitic

lifestyle, lack of realistic goals, juvenile delinquency, revocation of

conditional release and early behaviour problems. Although both factors

correlate with DSM-III-R's (APA, 1987) antisocial personality disorder,

the strongest relationship has been found with Factor 2. Factor 2 also

correlates with the presence of criminal behaviours, lower socioeconomic

background and self-report measures of socialization and antisocial

behaviour (Hare, 1991; Harpur et al., 1989).

Each PCL-R item is scored on a 3-point scale; '0' indicating an

absence of the trait, '1' indicating a partial match (i.e., some of the

elements apply), and '2' indicating a definite match. Thus, total PCL-R

scores can range from 0 to 40. A score of 30 or greater has been most

frequently used to designate primary psychopathy. Typically, the PCL-R

is scored on the basis of a semi-structured interview and institutional

files, which usually contain institutional progress reports,

psychiatric, psychological and social work reports, presentence reports,

criminal history records, police reports, community assessments and Parole Board decisions (Hare, 1991). However, promising results have also been found utilizing file information alone, provided the files are extensive (Wong, 1984, 1988; Rice, Harris & Quinsey, 1990). Wong (1988) reported an interrater reliability (Pearson r) of .74 using file review alone and .81 using file review and interview. In a related study with a larger sample (N = 315), Wong (1984) reported an interrater reliability of .85 using file information alone. The present study will utilize file information alone.

Psychopathy and Crime

Previous research indicates that psychopathy is strongly associated with criminal behaviour (Hare & McPherson, 1984). Within populations of incarcerated offenders, psychopaths (as identified by the PCL-R) have been found to be more violent and more criminally active than nonpsychopaths (for a review see Hare & Hart, 1992). They tend to exhibit instrumental (goal oriented) as opposed to affective (expressive) aggression, use weapons, and select victims who are unknown to them (Serin, 1991; Williamson, Hare & Wong, 1987). Psychopathy has also been found to be associated with higher rates of recidivism following release from prison (Hart, Kropp & Hare, 1988; Serin, Peters & Barbaree, 1990; Forth, Hart & Hare, 1990) and following release from a forensic psychiatric hospital (Harris, Rice & Cormier, 1991; Rice, Harris & Quinsey, 1990).

Several studies have investigated psychopathy in a population of

sexual offenders. Rice, Harris and Quinsey (1990) assessed recidivism

rates of 54 rapists released from a maximum security psychiatric

hospital. Results indicated that both postrelease sexual and violent

offenses could be predicted by PCL-R scores. Serin, Malcolm, Khanna and

Barbaree (1994) investigated the relationship between psychopathy and

deviant sexual arousal in a group of rapists ($\underline{n}$=33) and child molesters

($\underline{n}$=32). Results indicated that psychopathy and deviant sexual arousal

were significantly correlated for the child molesters, but not for

rapists. In a sample of 106 rapists and 70 child molestors, Prentky and

Knight (1988) found that rapists had significantly higher rates of

psychopathy (45.3% had PCL scores of at least 31) compared to the child

molestors (30.5%).

Barbaree, Seto, Serin, Amos and Preston (1994) used the MTC:R3 to

compare a group of sexual rapist subtypes: nonsadistic-sexual ($\underline{n}$=15) and

sadistic ($\underline{n}$=8), and nonsexual rapist subtypes: opportunistic (n=22) and

vindictive ($\underline{n}$=14), on several variables including offense precursors,

offense characteristics and sexual arousal. The fifth subtype

identified by the MTC:R3, pervasively angry, was not included as only

one rapist was assigned to this subtype. Results indicated that the

nonsexual rapists were more impulsive than the sexual rapists. Within

the nonsexual group, opportunistic rapists were more impulsive than the

vindictive rapists. Nonsexual rapists tended to use more force in the

index offense and caused more victim injury than the sexual rapists. In

regard to psychopathy scores (PCL-R), there were no significant

differences in total scores or in Factor 1 scores. Within the sexual group, sadistic rapists scored higher Factor 2 scores than did nonsadistic rapists. There was no significant difference in Factor 2 scores between the vindictive and opportunistic subtypes.

Brown (1994) also used the MTC:R3 to investigate rate of psychopathy among rapist subtypes (N=60). Brown compared four subtypes: opportunistic, pervasively angry, sexual (consisting of sadistic and sexual non-sadistic), and vindictive. Results indicated significant differences between the four groups in terms of PCL-R total scores, Factor 1 scores and Factor 2 scores. Further analyses indicated that the mean PCL-R score for the opportunistic rapists (M = 28.4, SD = 4.7) was significantly higher than the mean PCL-R scores for the sexual types (M = 22.0, SD = 6.7) and for the vindictive types (M = 19.5, SD = 6.1). The mean Factor 1 scores for the opportunistic type (M = 10.5, SD = 3.2) were significantly higher than mean Factor 1 scores for the vindictive types (M = 5.2, SD = 3.1).

Given the characteristics of psychopathy, one would expect an association between some of the dimensions measured by the MTC:R3 and the PCL-R. For example, as impulsivity is measured by both the MTC:R3 and PCL-R, a high correlation between these impulsivity items would be expected. Additional predictions will be discussed in greater detail later in the introduction.

Minnesota Multiphasic Personality Inventory (MMPI)

The MMPI is the self-report inventory most frequently used in sex offender research (Knight, Rosenberg, & Schneider, 1985). The earliest MMPI assessments unsuccessfully attempted to create empirically keyed scales which could detect sexual offenders (Marsh, Hilliard, & Liechti, 1955; Peek & Storms, 1956; Wattron, 1958). These were followed by a number of studies which compared heterogeneous sex offender groups to various controls. Little differentiation was found between normal controls (Carroll & Fuller, 1958; Panton, 1958) or between violent offenders (Hartman, 1967; Carroll & Fuller, 1958; Panton, 1958; Persons & Marks, 1971).

Subsequent researchers found more positive results by defining the sex offender groups more rigorously. Rader (1977) examined the MMPI profiles of rapists, exposers and nonsexual offenders. The results indicated that the rapists scored significantly higher than the other two groups on the Pd and Sc scales and higher than the exposers on the Pa, Hy, D and F scales. Similar results were reported by Armentrout and Hauer (1978) and Panton (1978).

Anderson, Kunce and Rich (1979) conducted a Q-type factor analysis of 92 sex offenders' (rape, child molestation, incest) MMPI profiles. Of the 92, 88 were categorized into one of three types characterized by profile peaks on (1) F,Sc, (2) Pd,Ma, and (3) D,Pd. Analysis of various social and personality variables revealed significant differences among the types. The first group (F,Sc) had poorer military and work histories, showed the most serious behaviour disturbances on the ward

and were most likely to have degraded their victims and blamed their victims for the assault. The second type (Pd,Ma) showed the best pre-assault and ward behaviour and were characterized as primarily character disorders. The third group (D,Pd) were characterized as older, less educated and showed chronic marginal social adjustment (i.e., alcohol abuse, frequent serious crimes).

Using cluster analytic procedures, Kalichman, Szymanowski, McKee, Taylor, and Craig (1989a) and Kalichman, Craig, Taylor, and Shealy, (1989b) identified five rapist types on the basis of MMPI profiles. In a third replication study, Kalichman (1990) also reported five profile types and found that these groups also differentiated along several sexual, affective and personality measures independent of the MMPI.

The first profile type displayed elevations in Pd and Ma, although none of the scales was significant (T > 70). Profile Type 2 displayed a single significant elevation on scale Pd. Both groups scored low on the Multiphasic Sex Inventory (MSI) and tended to have committed their sexual assault during the course of another crime. They also showed lower scores on affective scales and displayed higher levels of self-esteem. Kalichman et al. (1989a) suggested that these two types could be described as Cohen et al.'s (1969) Impulsive type.

The third profile type was characterized by significant elevations on scales D, Pd, Pa and Sc. This pattern has been found to be characteristic of unstable, hostile and dangerous individuals (Duckworth & Anderson, 1987, cited in Kalichman, 1990). This group showed higher affectivity, anger expression and lower self-esteem than the first two

groups. It was concluded that this subgroup likely represented anger (Groth et al., 1977) or aggressive (Cohen et al., 1969) rapists, who were not motivated to rape for sexual gratification.

Elevations on scales F, Pd, Sc and Ma characterized the fourth profile type. This group admitted to a greater preoccupation about rape and displayed a wide range of sexual deviances in their MSI scores. This group presented with the lowest self-esteem and social desirability scores. Kalichman et al. (1989) concluded that this subgroup represented a profile type characteristic of a power/compensatory rapist.

Finally, the fifth subgroup displayed significant elevations on scales D, Pd, Pa, Pt, Sc and Ma, and showed higher scale elevations that the other subgroups on most other scales. On the MSI, this subgroup reported various deviant and sexual thoughts and behaviours, and also reported arousal to thoughts of rape. This subgroup appears to represent a set of sadistic rapists.

The results of Kalichman et al.'s studies suggest that certain MMPI profiles correspond to specific subtypes of rapists. They have suggested that Cohen et al's (1969) subgroups (i.e., Impulsive, Aggressive, Compensatory and Sex-Aggression Defusion/Sadistic) may exhibit distinct MMPI profiles. As the MTC classification system was initially based on Cohen et al.'s groupings, it would be interesting to determine whether the MTC:R3 subgroups are also represented by particular MMPI profiles.

Rorschach

Traditionally, projective devices have not been used in the assessment of sexual offenders. Projective devices such as the Rorschach, Draw-A-Person and Thematic Apperception Test have often been discounted for their "lack of reliability and validity" (Mayer, 1988). Research investigating the Rorschach's utility with sex offenders, particularly with adult offenders, has been practically nonexistent. Of the research that has involved adult sexual offenders, very few have utilized Exner's Comprehensive scoring system (Prandoni, Jensen, Matranga & Smith Waison, 1973; Perdue & Lester, 1972; Hammer & Jacks, 1955; Guertin & Trembath, 1953; Pascal & Herzberg, 1952; Piotrowski & Abrahamsen, 1952). As many Rorschach signs have high levels of empirically demonstrated reliability and validity when administered and scored using the Comprehensive System (Exner, 1986), the utility of the Rorschach with sexual offenders should be reexamined.

Several factors point to the Rorschach's potential usefulness with the sex offender population. Perhaps of greatest importance is the defensive and suspicious nature exhibited by many sex offenders (Mayer, 1988). Even after conviction, many offenders continue to deny, rationalize and minimize their offenses. Mayer (1988) has attributed such denial to fear of reprisals and an inability to accept responsibility. Given this nature, it does not seem unreasonable to presume that some proportion of sexual offenders will attempt to present themselves in an unrealistic manner. This attempt to present oneself in a more favorable light may be particularly problematic for more

objective assessment tools. However, given the unstructured and ambiguous nature of the Rorschach, it may be particularly useful in circumventing subject bias. Because responders are not usually accurately aware of the significance of their responses, it will be more difficult for them to censor their responses.

Previous Rorschach Research

A. Sexual Offenders

Piotrowski and Abrahamsen (1952) investigated offenders' states of consciousness during the commission of a sexual assault. They related the subject's M and FM responses on the Rorschach to their level of intoxication or 'state of diminished consciousness or of weakened integration brought about not only by alcohol but also by drugs, extreme fatigue and acute anxiety' (p. 250). Their results indicated that individuals who committed the offense while in a state of diminished consciousness tended to provide FM responses which were more active than their M responses. They concluded that rapists who are believed to be highly sensitive to stress may demonstrate a more active FMa:FMp than Ma:Mp ratio.

Pascal and Herzberg (1952) examined the question of whether certain aspects of Rorschach performance can be diagnostic of sexual maladjustment. They presented subjects (incarcerated controls, rapists, pedophiliacs and homosexuals) with the ten Rorschach cards and instructed them to point out parts of the cards which could represent either male or female sex organs. They characterized the responses as

either popular or deviant. The results indicated that the pedophiliacs and homosexuals show a significantly greater tendency to give more deviant responses than do either the controls or rapists. Although subjects were also administered the Rorschach described by Beck, the results of this administration were not presented.

Guertin and Trembath (1953) investigated the differential reactions to Card VI by men committed as Criminal Sexual Psychopaths under a Michigan statute. The crimes of these offenders ranged from indecent exposure to accosting and soliciting (homosexual). Card VI was chosen as it was "regarded as most likely to disclose psychosexual difficulties because of the well-known phallic area" (p.221). Some of the protocols were scored using Klopfer's system, while others were scored with Beck's system. The results indicated that subjects failed to show any greater degree of disturbance than did controls (state hospital employees). The authors concluded that "the sex offender cannot be detected by the presence of psychosexual disturbance on the Rorschach because this is so common an occurrence" (p.226).

Hammer and Jacks (1955) compared the extensor M responses and the flexor M responses on Card III of rapists, heterosexual pedophiles and homosexual pedophiles. The results showed that compared to the pedophiles, rapists responded with greater extensor emphasis. The researchers concluded that these results supported the hypothesis that extensor M responses reflect an assertive personality type, while flexor M responses reflect a submissive and passive personality type.

Prandoni, et al. (1973) investigated the response characteristics of sex offenders and a random sample of non-sex offenders to Rorschach cards II, IV, VI, and VII. They hypothesized that sex-offenders would give significantly more (1) rejections, (2) minus form level responses, (3) overt sexual responses, (4) responses to sexual locations, and (5) have significantly longer reaction times. Significant differences were found for rejections and reaction time, with sex offenders evidencing more rejections and longer reaction times.

Finally, Perdue and Lester (1972) administered the Rorschach to 15 rapists and 15 violent but nonsexual offenders. They found that rapists tended to give more CF responses than the nonsexual offenders. They concluded that these results might indicate that rapists tend to show a greater tendency to react affectively to the environment.

Two studies have investigated Rorschach response characteristics with adolescent sex offender populations (Curtiss, Feczko, & Marohn, 1979; McCraw & Pegg-McNab, 1989). Curtiss, et al. (1979) compared normal and delinquent male adolescents using the Rorschach. They found that the affective ratio was the only scale that contributed heavily toward distinguishing the two groups, with the delinquent group having higher affective ratio scales than normals. However, the difficulty with this study was that the delinquent group was composed of both sexual and nonsexual offenders.

McCraw and Pegg-McNabb (1989) compared the Rorschach response characteristics of a group of male adolescent sex offenders with a group of nonsex adolescent offenders who were matched for sex, race, age and

IQ (within 10 points). Protocols were scored according to Exner, Weiner and Schuyler (1978) and were corrected for differences in productivity (R) and problems in analyzing ratios which may contain zero. The results indicated that the two groups differed in total number of responses, with the sex offender group averaging three more responses per Rorschach. When those protocols with questionable validity (i.e., low R and high lambda) were eliminated, a statistically significant difference in the number of anatomy responses was also found, with the sex offender group giving more. These results suggest that important information might be lost if the validity of the profile is not considered.

This study by McCraw and Pegg-McNabb (1989) was one of the few studies prior to the nineties that utilized the Comprehensive system for scoring and administration. It was also the first study to correct for differences in the number of responses. The uses of various scoring systems and the failure to account for differences in response rate are only two of the problems that have plagued previous studies using the Rorschach with sexual offenders. Other difficulties include inadequate standardization of instructions, problems with interrater reliability, spurious or illusory convergent validity, and lack of appropriate control groups. In addition, the failure to distinguish various subgroups of sexual offenders in many studies, or limiting the group distinction to either rapists or pedophiles makes it difficult to draw conclusions. It is not surprising that some studies have failed to find

any significant differences given that a very heterogeneous group of

sexual offenders has been treated as a homogeneous group of offenders.

B. Rorschach, Psychopathy and Antisocial Personality Disorder

As discussed earlier, shallow affect, the absence of anxiety and

deficits in the capacity for attachment have been associated with

psychopathy. Rapaport, Gill, and Schafer (1945) believed that an absence

of anxiety would be associated with an absence or decrease in Rorschach

shading responses. Although various interpretations have been suggested

for the shading responses (Exner, 1986), most researchers have generally

agreed on the following associations: diffuse shading response (Y)-

anxiety and helplessness (Rapaport et al., 1946; Schachtel, 1966;

Viglione, 1980), texture responses (T)-interpersonal closeness or

affectional relatedness (Exner, 1986; Klopfer, 1938; Schachtel, 1966),

and vista responses (V)-emotionally negative ruminations (Exner, 1986).

For the most part, empirical studies have tended to confirm these

associations (c.f., Gacono & Meloy, 1991, for a review).

In addition to the shading responses, given the characteristics of

psychopathy, several other Rorschach variables have been proposed to

distinguish psychopathic from nonpsychopathic criminals. Weiner (1991,

cited in Meloy & Gacono, 1994) proposed four measures of core

psychopathic deficts: Texture (T)=0, Pure Human (H) responses<2,

Cooperative movement responses (COP)=0, and Space (S)>2. Pure Human

responses are believed to provide an indication of interest in people,

Cooperative movement is believed to reflect adaptive views to

interpersonal relationships, while Space responses appear to reflect

characterological anger or chronic negativism (Exner, 1986; Exner, 1990;

Meloy et al., 1994).

Meloy and Gacono (Gacono et al., 1990; Gacono & Meloy, 1991, 1992,

1994; Meloy, 1988) have investigated extensively the relationship

between the Rorschach and psychopathy. Comparing a group of primary

psychopaths (PC1-R>30, N=21) with moderate psychopaths (PCL-R<30, N=21),

Gacono, Meloy and Heaven (1990) found that the psychopathic group

exhibited a significantly greater mean number of reflection and personal

responses, but not pair responses. The severe psychopaths exhibited a

virtual absence of texture responses, while the moderate psychopaths

produced significantly greater texture and diffuse shading responses.

There was not a significant difference in the mean number of vista

responses for the two groups (Gacono & Meloy, 1991). Similar findings

were also reported by Gacono and Meloy (1992).

Meloy, Gacono, and Kenney (1994) compared select Rorschach

variables (scored using the Comprehensive system) of a group of

incarcerated sexual homicide perpetrators (N=18) with a sample of non-

sexually offending but violent male psychopaths (PCL-R>30, N=23). The

results indicated that both groups were similar in their attachment

abnormality (T<1), characterological anger (S>2), pathological

narcissism (Rf>0), moderate and pervasive thought disorder (elevated

WSumC), and borderline reality testing (elevated X-%). However, the

sexual homicide perpetrators were characterized by a greater need for

affection (28% produced more than one texture response), a tendency to

engage in more dysphoric rumination (elevated Vista responses), abnormal elevations of nonvolitional ideation or obsessional thoughts (elevated animal movement responses), and a greater interest in others as whole, real and meaningful objects (more human content) compared to the violent psychopath group. However, one of the difficulties with this study was the greater response productivity of the sexual homicide sample (almost two standard deviations greater than the mean for nonpatient men). In addition, the type of sexual offense (i.e., age of victim; relationship of offender to victim) and the degree of psychopathy for the sexual homicide sample was not investigated.

Based on the previous findings, Gacono and Meloy (1992) suggested five variables distinguish psychopaths from nonpsychopaths: Texture (T)=0, Reflection (Rf)>0, Egocentricity>0.45, Personal (PER)>2, and Diffuse Shading (Y)=0. Elevated reflection, egocentricity and personal responses tend to indicate pathological narcissism and self-aggrandizement. As mentioned earlier, decreased texture and shading indicate distance in interpersonal contact and the absence of anxiety, respectively (Exner, 1986; Meloy et al., 1994).

Proposed Study

As mentioned above, the proposed study will investigate the issue of whether each MTC subgroup of rapists is associated with specific psychological and personality characteristics. Three psychological inventories will be measured: the PCL-R, the MMPI/MMPI-2, and the Rorschach. As the utility of the MTC:R3 has primarily been examined in

one population of rapists, the first step will be to investigate the

utility of the classification for another population of rapists. Indeed,

Knight and Prentky (1990) have acknowledged that the rapists used to

develop and validate the MTC typology may not be representative of other

samples of rapists, because these men were considered "sexually

dangerous" individuals and had been civilly committed for one day to

life.

The second step will involve comparing the dimensions of the

MTC:R3, as well as the rapist subgroups, with the PCL-R and MMPI/

MMPI-2. Finally, a random subgroup of rapists will be administered the

Rorschach to determine if specific scores on the Rorschach are

associated with particular dimensions of the MTC:R3.

In particular, five indices of aggression in the Rorschach

responses will be examined: aggressive movement, aggressive content,

aggressive potential, aggressive past and sado-masochism (Meloy &

Gacono, 1992). These indices were chosen because the amount of

aggression exhibited by the sexual offender has been a primary focus in

all of the previous typologies, including the MTC classification

schemes. Given that the amount of aggression is considered a critical

dimension for differentiating among rapists, it is reasonable to expect

that subgroups of rapists will differ in their frequencies of these

Rorschach indices of aggression.

Additional Rorschach indices that will be analyzed include

reflections, texture, diffuse shading, egocentricity, personalization,

and human movement-passive (Mp). Previous research has found these

indices to differentiate a group of severe psychopaths from a group of

moderate psychopaths (Gacono, Meloy & Heaven, 1990; Gacono & Meloy,

1991). Exner (1986) has also hypothesized that elevations in Mp may

indicate the abuse of fantasy (i.e., ideation of the subject will be

characterized by a tendency to take flight into passive forms of fantasy

as a defensive maneuver). Thus, it might be expected that rapists

classified as sexual (both sadistic and non-sadistic) according to the

MTC:R3 would be distinguishable from the other subgroups of rapists on

the basis of these indices.

Hypotheses

Before discussing predicted outcomes, it might be helpful to

review the MTC:R3 dimensions:

(1) Expressive Aggression: nature of victim injury, response
    to victim resistance, acts of the offender in the offense,
    desire to humiliate the victim and evidence of expressive
    aggression in non-sexual contexts.

(2) Unsocialized Behaviour:
    (a) Juvenile: problems in grammar school, problems in
        junior high, total number of non-sexual victimless
        offenses, running away, vandalism/destruction of
        property, and fighting.
    (b) Adult: history of non-prescription drug use, vandalism/
        destruction of property, fighting, assaultive
        offenses, unsocialized aggression, conduct/behavioural
        charges, owning a weapon, relation between alcohol use
        and antisocial behaviour.

(3) Social Competence: independent living and marriage/long-term
        relationship.

(4) Sexualization:
    (a) Primary: Preoccupation with sexual needs/fantasies,
        sexually deviant behaviours, and sexual acts were
        compulsive.

      (b) Secondary: Concern with masculine image, preoccupation with feelings of sexual and social inadequacy.

(5) Pervasive Anger: characterized as an angry person, consistent pattern of verbal aggression against males and females, assaults, preoccupation with aggressive fantasies, and cruelty to animals.

(6) Sadism:
      (a) Category A: preoccupation that is both sexual and aggressive in nature, victim's pain/fear/discomfort facilitates sexual arousal, evidence of sham sadism in the offense, evidence of sham sadism in consensual sexual relationships, evidence of overt sadism in consensual sexual relationships, violence in the offense is ritualized, intercourse with victim after death, and mutilation of victim's erogenous zones after death.
      (b) Category B: violence directed at erogenous areas, offender burns the victim, intercourse with victim after victim rendered unconscious, and insertion of foreign objects into victim's vagina or anus.

(7) Offense Planning: degree to which offense is planned. Rated on scale of five ranging from detailed planning to impulsive offense.

MTC:R3 Dimensions and The PCL-R

As mentioned earlier, The Psychopathy Checklist - Revised (Hare, 1991) has been shown to consist of two factors (Hare et al., 1990; Harpur, Hakstian, & Hare, 1988) reflecting: (1) interpersonal and affective characteristics, and (2) an impulsive, antisocial and unstable lifestyle.

A. PCL-R Factor 1

As the first factor of the PCL-R is not measured directly by the MTC:R3, it is difficult to make predictions regarding the expected results. However, if we can assume that callousness, egocentricity and

lack of remorse would be associated with greater expressive aggression, one would expect a high correlation between Factor 1 and the MTC:R3 dimension of expressive aggression. Given the criteria for pervasive anger and sadism, one might also expect a positive correlation with the these MTC:R3 dimensions and Factor 1.

B. PCL-R Factor 2

Comparing the PCL-R to the MTC:R3, it is clear that both measure lifestyle impulsivity. Thus, a positive correlation between PCL-R items reflecting Factor 2 and the MTC:R3 dimension of unsocialized behaviour - adult and juvenile would be expected. As well, impulsivity seems a likely concomitant of pervasive anger and thus pervasive anger would be expected to correlate positively with Factor 2. One would also expect a negative correlation between the MTC:R3 dimension of planning and Factor 2.

C. PCL-R Total Score

When one examines the criteria for the MTC:R3 dimensions of expressive aggression and pervasive anger there appears to be elements of both Factor 1 and 2. Thus, a positive correlation between these MTC:R3 dimensions and PCL-R Total scores is expected.

MTC:R3 Dimensions and The MMPI/MMPI-2

Since research has shown that scale Pd(4) seems to measure only the social deviance components of psychopathy (i.e, Factor 2; Hare,

1985), one would expect the same findings as predicted for Factor 2. Thus, one would expect to find a positive correlation with Pd(4) and the MTC:R3 dimensions of unsocialized behavior and pervasive anger.

MTC:R3 Dimensions and The Rorschach

Primarily, the Rorschach was included in this study for exploratory purposes. However, several predictions can be made. Given that elevations in Human Movement-Passive (Mp) responses may reflect an abuse of fantasy (Exner, 1986), one might expect a positive correlation between the MTC:R3 dimensions of sexualization and sadism and the Rorschach index of Mp. In regards to Rorschach aggression responses, predicting the expected findings is not as easy. For instance, it has been suggested that psychopaths might censor their aggressive responses because they recognize the inappropriateness of these responses in social situations (Exner, 1986) and thus one would not expect such responses in the "social"/interpersonal context of a Rorschach administration. However, it would be interesting to determine whether there is a positive relationship between the Rorschach aggressive indices and the MTC:R3 dimensions of expressive aggression and pervasive anger. In addition, one might expect a positive correlation between the Rorschach sadomasochism response and the MTC:R3 dimension of sadism-category A and B.

MTC:R3 Subtypes and The PCL-R

In regards to the MTC:R3 subtypes and the PCL-R, one would expect

the highest psychopathy scores for offenders classified as sadistic and

pervasively angry (they would be expected to score higher on both

Factors 1 and 2), moderate psychopathy scores for the opportunistic

(expected to score higher on Factor 2) and vindictive groups (expected

to score higher on Factor 1) and the lowest psychopathy scores for the

sexual non-sadistic rapists (expected to score lower on both factors).

MTC:R3 Subtypes and The MMPI/MMPI-2

Based on the results of Kalichman and colleagues (Kalichman, 1990;

Kalichman et al., 1989a, 1989b), it would be expected that each subgroup

of rapists will be associated with a specific MMPI/MMPI-2 profiles. For

offenders classified is opportunistic, one would expect a profile with

no significant elevations or with an elevation on scale 4(Pd) only. For

offenders classified as either pervasively angry or vindictive, a

profile with elevations on scales 2(D), 4, 6(Pa), and 8(Sc) would be

expected. For sexual non-sadistic offenders, a profile with elevations

on scales 4, 8, and 9(Ma) would be predicted, while the sadistic

offender is expected to show elevations on scales 2, 4, 6, 8 and 9.

MTC:R3 Subtypes and The Rorschach

Meloy and Gacono (1991; 1992) found that offenders identified as

high in psychopathy were characterized by greater reflection (Fr+rF< 0),

personal (Per =/< 3) and sadomasochism responses, and fewer texture (T =

0) and diffuse-shading (Y =/> 1) responses compared to moderate

psychopathic offenders. Additionally, the egocentricity ratios of

psychopaths tended to be greater than 0.45. Thus, one might expect similar results comparing sadistic and pervasively angry rapists to sexual non-sadistic rapists.

Given that elevations in Human Movement-Passive (Mp) responses may reflect an abuse of fantasy (Exner, 1986), one might expect a positive correlation between the MTC:R3 subtypes of sexual and sadistic and the Rorschach index of Mp.

Finally, given that the degree of expressive aggression plays such a prominent role in the MTC:R3 typology, it might be expected that a high expressive aggression group (consisting of the sadistic, pervasively angry and vindictive subtypes) and a low expressive aggression group (consisting of the opportunistic and sexual subtypes would differ in mean aggression scores.

Method

Participants

Participants were recruited from three institutions in the Pacific Region of Correctional Services of Canada (CSC): Mountain Institution (MI), Kent Institution (KI) and the Regional Health Centre (RHC). These institutions were selected to obtain a varied sample of offenders (participants from both medium and maximum security facitilies). All participants had been convicted of sexual assault against a female victim who was at least fifteen years of age at the time of the offense. Sexual assault was defined as 'attempted or actual nonconsensual oral, anal, or vaginal penetration, obtained by force, or by threat of bodily

harm, or when the victim was incapable of giving consent' (Searles &
Berger, 1987). Participants who had been convicted of sexual assault
against any female victims younger than 15 years of age were excluded
from the study.

For each institution, case management officers identified all
current inmates who met subject inclusion criteria. Thus, the study
sample was frozen on a particular day. Five additional participants from
Mountain Institution were included to compensate for attrition.
Institutional files of 152 current inmates (MI, n=107; KI, n=25; RHC,
n=20) were reviewed. As Mountain Institution is a protective custody
institution, it contains a greater percentage of sexual offenders and
thus accounts for the larger number of subjects from MI. One file from
Mountain Institution was excluded from analyses due to lack of
information. A subset of 40 offenders from Mountain Institution were
administered the Rorschach and intelligence subtests. Of those asked to
participate (n=73), 55% agreed. The most common reasons given by the 33
offenders who declined to participate were as follows: 61% (N=20) did
not trust psychological assessments due to previous negative
experiences, 15% (n=5) did not want to invest their time, 15% (n=5) did
not provide any reasons for declining to participate, and 9% (n=3) were
involved in an appeal and were instructed by their lawyers not to
discuss the details of their case with anyone.

Informed consent was obtained from all participants administered
the Rorschach (Appendix A). Although informed consent was not obtained
from participants whose files were reviewed, approval for this review

was obtained from both Corrections Canada and Simon Fraser University Ethics Committee. Complete anonymity and confidentiality were assured by replacing participants' names with a numerical code.

At the time of the study, the mean age of the total sample was 35.6 years (SD = 8.48) ranging between 19.3 and 61.8 years of age. Sixty-three percent of the sample was Caucasian (n=95), 28.5% (n=43) was Native, 3.3% (n=5) was East Indian, 2% (n=3) was Black, and 1.3% (n=2) was Asian. Prior to their incarceration, 82.8% (n=125) of participants had not completed high school, 13.9% (n=21) had completed grade 12, and 3.3% (n=5) had completed university or college degrees.

The mean sentence length for those individuals serving finite sentences was 7.9 years (SD = 5.36). In addition, 27 individuals (18%) were serving life sentences, 18 individuals (12%) had been classified as either dangerous offenders (n=14) or dangerous sex offenders (n=4) and were serving indeterminant sentences. The mean number of years that had transpired from the commencement of the current sentence and the file review was approximately 5.6 years (SD = 5.23).

In order to address the issue of generalizability, it was important to assess whether or not this sample from British Columbia was representative of the Canadian federal prison sex offender population as a whole. In order to determine this, several key variables obtained during the sex offender case file review conducted by Correctional Services Canada (Motiuk & Porporino, 1993) were compared with those obtained during the current file review. Of the original 477 offenders sampled by CSC, only 173 had offended against adult females over the age

of 15. Therefore, all comparisons were based on this subsample (n = 173). The following variables were chosen for comparison: age at time of study, ethnicity, sentence length, sexual offense history, offender/victim relationship, number of victims in current offense and degree of victim injury. Demographic and sexual offense history comparisons are presented in Table 1, while the comparison of offense characteristics is presented in Table 2.

As noted in Tables 1 and 2, it appears that the current sample is relatively representative of the Canadian sex offender population in terms of age, ethnicity, sexual offense history, and offender/victim relationship. However, in terms of sentence length, number of victims and degree of victim injury, the current sample seems to be composed of a higher percentage of 'serious' or more violent offenders (i.e., given that lengthier sentences are usually given for more violent and/or frequent offenses). For instance, approximately 30% of the current sample was serving either life or indeterminant sentences, compared to 7.6% in the 1993 CSC sample. Furthermore, 23.2% of the current sample had sexually assaulted three or more victims, while only 3.5% of the CSC sample had done so. Finally, in terms of victim injury, only one individual (0.6%) in the CSC study had committed a sexual assault that resulted in death compared to 27 individuals (17.8%) in the current sample. Thus, the generalizability of the current findings to the Canadian sex offender population might be questionable. Nonetheless, it does seem to provide an examination of very violent sexual offenders.

Table 1

<u>Percentage Distribution of Sexual Offense Characteristics: Comparison of</u>
<u>the Present Study with CSC 1993 Case File Review</u>

Variable	Study Sample (<u>N</u> = 151) % (<u>n</u>/151)	Case File Review Sample (<u>N</u> = 173) % (<u>n</u>/<u>N</u>)
<u>Offender/Victim Relationship</u>		
Spouse/girlfriend	13.9 (21)	14.0 (23/154)
Casual Acquaintance	18.5 (28)	26.0 (40)
Stranger	67.5 (102)	59.1 (91)
<u>Number of Victims</u>		
1	53.6 (81)	87.9 (152/173)
2	23.2 (35)	8.7 (15)
3+	23.2 (35)	3.5 (6)
<u>Degree of Victim Injury</u>		
None	5.2 (8)	40.1 (63/157)
Slight/no weapon	9.3 (14)	25.5 (40)
Slight/weapon	18.5 (28)	7.0 (11)
Treated and released	25.8 (39)	15.3 (24)
Hospitalized	23.2 (35)	11.5 (18)
Death	12.6 (19)	0.6 (1)
Death/mutilation	5.2 (8)	0.0 (0)

Table 2

Percentage Distribution of Demographic Variables and Sexual Offense
History: Comparison of the Present Study with CSC 1993 Case File Review

Variable	Study Sample (N = 151)	Case File Review Sample (N = 173)
Mean age at time of study (in years)	35.6 (SD = 8.5)	33.5 (SD = 8.7)
	% (n/151)	% (n/N)

Race

Caucasian	62.9 (95)	72.4 (123/170)
Native	28.5 (43)	19.4 (33)
Asian	1.3 (2)	2.4 (4)
Black	2.0 (3)	4.1 (7)
Other	5.3 (8)	1.8 (3)

Sentence Length

Less than 2 years	0.7 (1)	0.0 (0/170)
2 to 4 years	22.5 (34)	34.7 (59)
5 to 9 years	29.1 (44)	40.0 (68)
10+ years	17.9 (27)	17.6 (30)
Life/Indefinite	29.8 (45)	7.6 (13)

Sexual Offense History[a]

First time sexual offender	52.3 (79)	57.2 (99/173)
Repeat sexual Offender	47.7 (72)	42.8 (74)

Note[a] repeat sex offenders had either been charged or convicted at least
once with a sexual offense prior to the current sexual offense

Procedure

Data was obtained from two different sources: institutional files and a testing session in which the Rorschach and two subtests from the Weschler Adult Intelligence Scale - Revised (WAIS-R) (e.g., Vocabulary and Block Design) were administered.

One hundred and fifty-one files were reviewed and rated on both the MTC:R3 dimensions (Knight & Prentky, 1990) and the Psychopathy Checklist (PCL-R; Hare, 1991). In order to control for an ordering effect, the order in which the MTC:R3 and PCL-R was scored was varied. Institutional files contained information regarding family and developmental history, criminal history (including details of the current offense), assessments conducted by social workers, psychologists and psychiatrists, treatment history and behaviour while incarcerated. Additional variables obtained from the institutional files included demographics, previous criminal history, treatment experience, substance abuse (individual and parental), victim characteristics and various childhood factors including physical and sexual abuse. A coding form was used for each file review and is presented in Appendix B.

All case file reviews and testing sessions were conducted by the principal investigator. However, the MTC:R3 and the PCL-R were scored by a second rater on a random subsample (n=27) of cases to obtain inter-rater reliability estimates.

Massachusetts Treatment Center: Revised Rapist Typology 3 (MTC:R3)

Information obtained from the institutional files was used to classify offenders according to the Massachussetts Treatment Center: Revised Rapist Typology 3 (Knight & Prentky, 1990a). The MTC:R3 rates each offender on the dimensions of expressive aggression, unsocialized behaviour-juvenile and adult, social competence, sexualization, pervasive anger, sadism and offense planning. Dichotomous decisions (low/high or absent/present) were made for each criterion in each dimension (except for offense planning which is scored on a 5-point scale ranging from impulsive [1] to detailed planning [5]). A total score for each dimension was obtained by summing across criteria, and a decision flow-chart was then used to arrive at a primary type (Knight & Prentky, 1990). For the purpose of this study, all analyses were conducted on the five primary subtypes: Opportunistic, Pervasively Angry, Sadistic, Sexual Non-Sadistic, and Vindictive.

The development and empirical support for the MTC:R3 typology has been reviewed by Knight and Prentky (1990) and was discussed in greater detail earlier. Prentky (1993) reported reliabilities which ranged from a low of 0.54 for offense planning to a high of 0.84 for unsocialized aggression-juvenile. Barbaree et al. (1994) reported that two independent raters agreed 77% of the time in terms of individual subtypes, while Knight et al. (1994) reported a kappa coefficient of .65 for the ratings on the MTC:R3. The assessment of construct validity has involved both path analytic approaches (Rosenberg et al., 1988) and cluster analytic techniques (Knight & Prentky, 1988). As discussed

earlier, results have been promising and the MTC:R3 appears to be one of the most advanced and sophisticated. rapist typologies available.

The Hare Revised Psychopathy Checklist (PCL-R)

The Hare Revised Pscyhopathy Checklist (PCL-R; Hare, 1991) was used as a measure of psychopathic behaviour. The reliability and validity of the PCL-R are well established and have been discussed extensively in the literature (Hare, 1985, 1991; Harpur, Hakstian, & Hare, 1988; Hart, Kropp, & Hare, 1988). The PCL-R consists of 20 items that measure the extent to which an offender corresponds to a prototypical description of psychopathy discussed in the literature (Cleckley, 1976; Hare, 1970; McCord & McCord, 1964). Each PCL-R item was scored on a 3-point scale; '0' indicating an absence of the trait, '1' indicating a partial match (i.e., some of the elements apply), and '2' indicating a definite match. Thus, total PCL-R scores ranged from 0 to 40. A score of 30 or greater has been most frequently used to designate primary psychopathy. Typically, the PCL-R is scored on the basis of a semi-structured interview and institutional files (Hare, 1991). However, as discussed earlier, the PCL-R can also be scored using file information alone (Wong, 1984, 1988; Rice, Harris & Quinsey, 1990). The present study utilized file information alone.

PCL-R total scores ranged between 4 and 38 with a mean of 21.2 and a standard deviation of 7.7. Factor 1 scores ranged between 0 and 16 ($\underline{M}$ = 7.6, $\underline{SD}$ = 4.3) and Factor 2 scores ranged between 0 and 17 ($\underline{M}$ = 9.8, $\underline{SD}$ = 4.4). These results are generally consistent with previous findings

(Hare, 1991). Eighteen percent (n = 27) of the sample received a total PCL-R score of 30 or greater, while 82% (n = 124) of the sample received a total PCL-R score of 29.5 or less. Again, this is similar to previous findings (Hare, 1991). However, this percentage is much lower than the results reported by Brown (1994) and Prentky and Knight (1988). Brown found that 35% of her sample received a score of 30 or greater on the PCL-R, while Prentky and Knight reported that 45.3% of their sample received a score of 31 or greater.

Interrater reliability for the PCL-R total scores and factor scores was very high. For total PCL-R scores, $ICC_{(1,2)}$ = 0.90; for Factor 1 scores, $ICC_{(1,2)}$ = 0.89; and for Factor 2 scores, $ICC_{(1,2)}$ = 0.88. These results are generally consistent with previous findings (Hare, 1991).

Minnesota Multiphasic Personality Inventory (MMPI/MMPI 2)

Previously administered MMPI (n = 64) or MMPI 2 (n = 75) scores were recorded from the institutional files. The reliability and validity of the MMPI/MMPI 2 are well established and have been discussed extensively in the literature (see Graham, 1990 for a review). K corrected T scores from the three validity and 10 clinical scales of Form R were utilized. If more than one profile was available, the results from the administration closest to the date of the offense was recorded. The mean time between sentence commencement and administration of the MMPI/MMPI 2 was approximately one year and nine months (SD = 2.76, range less than one month - 20 years). Subjects in the five MTC:R3

groups did not differ significantly in the elapsed time between sentence commencement and MMPI/MMPI 2 administration. Subjects that did not have MMPI/MMPI-2 results in their case file were not included in the study. In addition, if there was any concern regarding the validity of the results (i.e., profiles matching an 'all true' or 'all false' response set [Graham, 1990], validity scales, concern mentioned by the psychologist, question of reading ability), the results were excluded from analyses (n = 12; 7 MMPI profiles and 5 MMPI-2 profiles).

Correlations between scores on the original clinical scales and the clinical scales of the MMPI 2 are all above 0.98, suggesting that the two sets of scales are essentially equivalent (Graham, 1990). However, because the MMPI 2 utilized a different kind of T-score transformation from that of the original MMPI, it was necessary to perform corrections on the MMPI-2 T-scores in order to make them comparable to MMPI T-scores (Hathaway & McKinley, 1989). This entailed subtracting approximately nine points from each MMPI-2 scale T-score. In addition, when utilizing the profile subtypes derived from Kalichman and colleagues (1989a; 1989b; 1990), a T-score greater than 65 was deemed a significant elevation on the MMPI-2 (compared to a T-score > 70 on the MMPI).

The means and standard deviations for the MMPI/MMPI-2 validity and clinical scales are presented in Table 3. The means ranged from a low of 49.8 (K scale, $\underline{SD}$ = 10.9) to a high of 77.4 (4-Pd, $\underline{SD}$ = 13.2)

The principle investigator and a second rater categorized all of the MMPI/MMPI 2 profiles ($\underline{n}$=127) into one of the five profile types

Table 3

MMPI/MMPI-2 Validity and Clinical Scales: Means and Standard Deviations

Scale	Mean (N=127)	SD
L	52.8	10.0
F	68.0	17.1
K	49.8	10.9
1 (Hs)	58.9	15.0
2 (D)	66.1	15.2
3 (Hy)	59.1	14.0
4 (Pd)	77.4	13.2
5 (Mf)	55.1	13.2
6 (Pa)	67.2	15.4
7 (Pt)	64.1	16.3
8 (Sc)	69.8	20.0
9 (Ma)	59.6	13.0
0 (Si)	55.9	12.4

identified by Kalichman et. al. based on their rules (1989a; 1989b; 1990). The interrater reliability (kappa) for the five profile types was 0.79. In addition, both raters compared the current profiles with each of the five profile types identified by Kalichman and colleagues and rated them on a 3-point scale: '0' indicating no match, '1' indicating partial match, and '2' indicating near perfect or perfect match. Thus, statistical analyses was performed on all profiles, as well as on only those profiles identified as a near perfect match ($n=87$).

Rorschach

The Rorschach was administered to a subsample of 40 participants. It was administered and scored according to the methods of the Exner Comprehensive System (1990). The reliability and validity of the this scoring system has been well established (Exner, 1986). In addition, four indices of aggression (Meloy & Gacono, 1992) were also scored. These include aggressive content, aggressive potential, aggressive past and sado-masochism. Meloy and Gacono (1992) report 92-100% interrater agreement for these indices.

Participants from Mountain Institution were randomly asked to participate in the Rorschach testing session. Participants who declined to participate ($n=33$) were compared to the subjects who agreed to participate. Statistical analysis (t-tests) revealed no systematic differences between the two groups in terms of age, sentence, and length of incarceration. Means and standard deviations for these variables are presented in Table 4.

Table 4

Comparison between Rorschach Participants and Non-Participants: Means
and Standard Deviations of Several Variables

Variable	Participants (n=40)		Non-Participants (n=33)	
	Mean	SD	Mean	SD
Age	35.8	8.2	35.1	8.4
Sentence	7.5	5.7	7.1	4.4
Length of Incarceration	5.7	5.7	5.1	4.9

The means and standard deviations for the Rorschach indices of interest are presented in Table 5. The mean number of responses was 17.7 ($\underline{SD}$ = 4.2) The means of the indices ranged from a low of .43 (Egocentricity, $\underline{SD}$ = .28) to a high of 2.6 (Aggressive Content, $\underline{SD}$ = 1.7).

A random subsample ($\underline{n}$=5) of Rorschach records were scored by a second rater, a senior clinician proficient in the administration and scoring of the Rorschach, to determine whether there was general agreement in the scoring of the responses. Although such a small n-size precludes making large generalizations, it appears that there was good general agreement on all of the Rorschach indices. A third rater examined all of the records and scored only those Rorschach indices of interest in the current study. The interreliability estimates for these Rorschach indices are displayed in Table 6. All of the single intraclass correlation coefficients were .80 or above, indicating good interrater reliability.

Wecshler Adult Intelligence Scale - Revised (WAIS-R): Vocabulary and Block Desi'm Subtests

The forty subjects administered the Rorschach were also administered the Wechsler Adult Intelligence Scale- Revised (WAIS-R) subtests of Vocabulary and Block Design. These two subtests have been found to correlate highly with Full Scale I.Q. (.78 - .88; Silverstein, 1982) and are generally accepted as a "quick" measure or estimate of

Table 5

<u>Rorschach Indices: Means and Standard Deviations</u>

Rorschach Indice	Mean (N=127)	SD
Responses	17.7	4.2
Texture	1.0	1.1
Shading	2.0	1.9
Reflections	1.2	1.4
Egocentricity	.43	.28
Personalization	2.1	2.7
Human Movement-passive	.89	.91
AgMovement	.73	.99
AgContent	2.6	1.7
AgPotential	.50	.72
AgPast	.56	.75
Sado-Masochism	.48	.68

Table 6

Inter-rater Reliabilities for Rorshach Indices

Rorschach Indices	Reliability
Aggressive Movement	.80
Aggressive Content	.97
Aggressive Potential	.92
Aggressive Past	.95
Texture	.93
Shading	.98
Reflections	1.00
Personalizations	.99
Passive Human Movement	.89

I.Q. The I.Q. scores derived from these two subtests ranged from 77 to 129, with a mean of 99.6 ($\underline{SD}$ = 9.4).

Results

Data Analysis

Both dimensional and categorical data were analyzed. Pearson correlations were conducted to examine the relationship between the MTC:R3 dimensions and the PCL-R (total and factor scores), specific scales of the MMPI/MMPI-2, and specific Rorschach indices. The relationship between MTC:R3 rapist subgroups, PCL-R scores, MMPI/MMPI-2 profiles and Rorschach indices were assessed using t-tests and ANOVAs.

Distribution of MTC:R3 Dimensions

The means and standard deviations for the MTC:R3 dimensions are presented in Table 7. The means of the dimensions ranged from a low of .32 (sadism-category B, $\underline{SD}$ = .65) to a high of 4.09 (unsocialized behaviour-adult , $\underline{SD}$ = 1.94). As no previous studies have presented the means for each dimension, it is impossible to make any statements regarding the comparability of the current study with previous studies.

Distribution of MTC:R3 Subtypes

The distribution of the subjects according to the MTC:R3 typology is presented in Table 8. Subjects classified as pervasively angry comprised the largest group ($\underline{n}$ = 39; 21.2%), whereas subjects classified as sexual non-sadistic comprised the smallest group ($\underline{n}$ = 21; 13.9%). All

Table 7

MTC:R3 Dimensions: Means and Standard Deviations

MTC:R3 Dimension	Mean (N=151)	SD
Expressive Aggression	2.31	1.69
Unsocialized Behaviour		
Juvenile	2.79	1.73
Adult	4.09	1.94
Social Competence	1.59	1.10
Sexualization Primary	1.09	1.23
Sexualization Secondary	.51	.48
Pervasive Anger	1.76	1.34
Sadism Category A	1.13	1.67
Sadism Category B	.32	.65
Planning	3.46	1.20

Table 8

Percentage Distribution of MTC:R3 Subtypes: Comparison of the Present
Study with Previous Studies

			Study	
MTC:R3 Subtype	Present % (n/151)	1 % (n/108)	2 % (n/60)	3 % (n/60)
Opportunistic	21.2 (32)	27.8 (30)	36.7 (22)	36.7 (22)
Pervasively Anger	25.8 (39)	16.7 (18)	1.7 (1)	18.3 (11)
Sadistic	21.9 (33)	13.0 (14)	13.3 (8)	13.3 (8)
Sexual Non-Sadistic	13.9 (21)	35.2 (38)	25.0 (15)	21.7 (13)
Vindictive	17.2 (26)	6.2 (7)	23.3 (14)	10.0 (6)

Note. Study 1 represents findings from Prentky & Knight (1985).
Percentages for MTC:R3 were derived from MTC:R2 results. Study 2
represents findings from Barbaree et al. (1994). Study 3 represents
findings from Brown (1994).

five subtypes have a relatively large number of subjects for statistical

purposes. For comparison purposes, the results of Prentky and Knight

(1985), and two additional Canadian populations (Barbaree et al., 1994;

Brown, 1994) are also presented in Table 8. The distribution of MTC:R3

subtypes of Prentky and Knight were derived from MTC:R2 information.

Comparison of the different studies reveals that the current study

classified a greater percentage of rapists as pervasively angry (25.8%)

or vindictive (17.2%), while a smaller percentage were classified as

opportunistic (21.2%) or sexual (13.9%). These findings might be the

result of the more violent nature of the current sample. This

possibility will be examined in the Discussion section.

Interrater Reliability

The single intraclass correlation coefficients (ICC) for the

MTC:R3 dimensions are presented in Table 9. For comparison purposes,

the interrater reliability estimates of Prentky (1993) are also

included. The single intraclass correlation coefficients range from a

low of 0.61 (MTC:R3 dimension of social competence) to a high of 0.93

(MTC:R3 dimension of sadism - category A). The current results are

similar to those of Prentky (1993). The kappa coefficient for the five

MTC:R3 subtypes was 0.75, compared to 0.65 reported by Prentky.

Table 9

Inter-rater Reliabilities for MTC:R3 Dimensions: Comparison of the
Present Study with Prentky's (1993) Results

MTC:R3 Dimension	Present Study	Prentky Study
Social Competence	.61	.82
Unsocialized Aggression		
Juvenile	.72	.84
Adult	.78	.82
Pervasive Anger	.69	.57
Primary Sexualization	.82	.70
Secondary Sexualization	.68	na
Expressive Aggression	.90	.76
Sadism		
Category A	.93	.65
Category B	.91	.72
Offense Planning	.75	.54

MTC:R3 Dimensions

A. PCL-R Scores

Significant Pearson product-moment correlations (one-tailed) between the MTC:R3 dimensions and PCL-R scores are presented in Table 10. Given that Factor 1 and Factor 2 have been found to correlate (on average .56) in correctional populations (Hare, 1991), partial correlations are also presented. The predicted correlations are underlined and were tested at the .05 level. Additional unplanned comparisons were tested at the .005 level so as to hold the familywise Type I error rate at $\alpha_{FW} = .05$.

The following MTC:R3 dimensions were significantly correlated in a positive direction with PCL-R total scores: expressive aggression, unsocialized behaviour-adult and juvenile, and pervasive anger. Expressive aggression was also correlated in a positive direction with Factor 1 scores, while pervasive anger was correlated positively with both Factor 1 scores and with Factor 1 scores controlling for Factor 2. Unsocialized behaviour-adult and juvenile, and pervasive anger were significantly correlated in a positive direction with Factor 2 scores. Unsocialized Behaviour-Adult and Juvenile were also positively correlated with Factor 2 scores controlling for Factor 1. Unsocialized Behaviour-Juvenile was also significantly correlated in a negative direction with Factor 1-partialling Factor 2 but not with Factor 1 alone. Planning was significantly correlated in a negative direction with Factor 2 scores and with Factor 2 scores controlling for Factor 1, and in a positive direction with Factor 1 scores controlling for Factor

Table 10

Pearson Product-Moment Correlations Between MTC:R3 Dimensions and PCL-R Scores

MTC:R3 Dimension	PCL-R Scores				
	Total	Factor 1	Factor 2	F1 (2)	F2 (1)
Expressive Aggression	.13*	.15*	.05	.15	-.01
Unsocialized Behaviour					
Juvenile	.34***	-.01	.54***	-.27***	.58***
Adult	.30***	.09	.37**	-.07	.37***
Social Competence	.10	.21	-.05	.24	-.15
Sexualization Primary	-.04	-.00	-.06	.02	-.06
Sexualization Secondary	-.21	-.17	-.14	-.12	-.08
Pervasive Anger	.37***	.32***	.29***	.24***	.19
Sadism Category A	.13	.19	.05	.18	-.02
Sadism Category B	-.04	.03	-.11	.08	-.13
Planning	-.02	.12	-.13**	.18**	-.19**

Note. F1 (2) indicates a partial correlation controlling for Factor 2. F2 (1) indicates a partial correlation controlling for Factor 1. The familywise error rate was held at .05 by testing each comparison not underlined at p = .05/10 = .005. *p<.05, **p<.005, ***p<.001 (one-tailed).

2. In terms of effect size (Cohen, 1992), the correlations indicate a small effect size for expressive aggression and planning, a medium effect size for pervasive anger and unsocialized behaviour-adult, and a generally large effect size for unsocialized behaviour-juvenile.

Thus, in summary, every prediction was confirmed except for one: The MTC:R3 dimension of sadism was not correlated in a positive direction with Factor 1 scores. Several reasons were considered for this surprising result including whether there was a curvilinear relationship rather than a linear relationship or whether there was a floor or ceiling effect. The possibility of a curvilinear relationship was eliminated. However, given the low base rate for both sadism-category A (M = 1.13, SD = 1.67) and sadism-category B (M = .32, SD = .65), it is possible that a floor effect contributed to the lack of findings.

A multiple regression analysis was conducted using the MTC:R3 dimensions to predict PCL-R total score. Using all ten MTC:R3 dimensions, the multiple R of .53 was significant, F (10, 133) = 5.13, p <.001. The R Square of .28 indicated that the combination of MTC:R3 dimensions accounted for approximately 28% of the variance in PCL-R total scores. A backward regression analysis was conducted to help determine the relative contribution of each dimension to PCL-R total score. Results indicated that three MTC:R3 dimensions accounted for 23% of the variance: pervasive anger, unsocialized behaviour-juvenile, and sexualization-secondary. Thus, unsocialized behaviour-juvenile could add only 6% to the 14% accounted for by pervasive anger. Sexualization-

secondary could add only 3% to the variance accounted for by pervasive anger and unsocialized behaviour-juvenile.

B. MMPI/MMPI-2 Scales

MTC:R3 dimensions were correlated with the MMPI dimensions of Pd(4). After applying the Bonferonni correction (p = .05/10 = .005), Pearson product-moment correlations (one-tailed) revealed a significant positive relationship between Pd(4) and the MTC:R3 dimensions of Pervasive Anger (r = .24, p<.005) and Sadism-Category A (r = .26, p<.001). All other correlations between the MTC:R3 dimensions and Pd(4) were not statistically significant.

Thus, the predictions regarding the relationship between the MTC:R3 dimensions and Pd(4) were only partially confirmed. Pervasive anger was found to significantly correlate in a positive direction with Pd(4). The magnitude of this finding was in the medium range. However, unsocialized behaviour did not significantly correlate with Pd(4). Again, the possibility of a curvilinear relationship or a floor/ceiling effect was eliminated. Finally, the positive correlation between sadism-category A and Pd(4) was not predicted.

C. Rorschach

Significant Pearson product-moment correlations (one-tailed) between the MTC:R3 dimensions and Rorschach indices, partialling for number of responses and IQ, are presented in Table 11. The predicted

Table 11

Significant Pearson Product-Moment Correlations Between MTC:R3 Dimensions and Rorschach Indices
(controlling for Number of Responses and IQ)

MTC:R3 Dimension	Texture	Shading	Reflect	Egocent	Personal	Mp
Expressive Aggression	-.16	-.18	-.06	.07	.13	.05
Unsocialized Behaviour						
Juvenile	-.12	-.11	.27	.34	.33	.12
Adult	-.04	.21	-.07	.09	.01	-.25
Social Competence	-.34	-.06	-.08	.04	.08	.03
Sexualization Prim.	-.09	-.21	-.13	-.08	.25	.22
Sexualization Second.	.33	.01	.14	.19	-.01	-.03
Pervasive Anger	-.10	-.20	-.24	-.07	.14	-.10
Sadism-Categ. A	-.26	-.11	-.08	-.02	.24	.16
Sadism-Categ. B	.05	.03	-.18	-.22	-.14	.05
Planning	.09	-.28	-.15	-.10	.05	-.04

Note. The familywise error rate was held at .05 by testing each comparison at $p = .05/10 = .005$.

correlations are underlined and were tested at the .05 level. None of the correlations reached significance.

Significant Pearson product-moment correlations (one-tailed) between the MTC:R3 dimensions and Rorschach aggression scores, partialling for number of responses and IQ, are presented in Table 12. Again, the predicted comparisons are underlined and were tested at the .05 level. The MTC:R3 dimension of expressive aggression was significantly correlated in a positive direction with aggressive movement, r = .28, p<.05, and aggressive content, r =.26, p<.05. The MTC:R3 dimension of sadism-category A was significantly correlated with sado-masochism scores, r =.35, p<.05.

Thus, several predictions were confirmed regarding the MTC:R3 dimensions and Rorschach indices. Expressive aggression was correlated in a positive direction with aggressive movement and aggressive content responses. The MTC:R3 dimension of sadism-category A was positively correlated with sado-masochism responses. However, the MTC:R3 dimensions of sexualization and sadism were not correlated with human movement-passive responses. As well, pervasive anger was not correlated with any of the indices of aggression. One of the difficulties with this research is the low base rate of some of these variables. For instance, the mean number of responses for all of the aggression indices except for aggressive content was below one. Another difficulty was the small number of subjects, resulting in a lack of power (although 40 subjects for a Rorschach study is quite substantial).

Table 12

Significant Pearson Product-Moment Correlations Between MTC:R3 Dimensions and Rorschach Aggression Scores (controlling for Number of Responses and IQ)

MTC:R3 Dimension	AgMovement	AgContent	AgPotential	AgPast	Sado-Masochism
Expressive Aggression	.28*	.26*	.10	.02	.18
Unsocialized Behaviour					
Juvenile	.25	.18	.08	.01	.13
Adult	.07	.23	.13	.15	.16
Social Competence	-.08	-.01	.01	.24	.30
Sexualization Prim.	-.18	-.14	-.12	.30	.20
Sexualization Second.	-.01	-.10	-.33	.19	.16
Pervasive Anger	.00	.19	.06	.19	.24
Sadism-Categ.A	.04	.14	.03	.36	.35*
Sadism-Categ.B	.18	.25	-.02	.13	-.22
Planning	-.04	.09	.04	.02	-.01

Note. The familywise error rate was held at .05 by testing each unplanned comparison (i.e. not underlined) at $p = .05/10 = .005$. Planned comparisons were tested at $p = .05$.
*$p < .05$ (one-tailed)

MTC:R3 Subtypes

A. PCL-R Scores

Given the current debate surrounding the continuous and/or categorical nature of psychopathy (Lilienfeld, 1994; Serin, 1990), the results were analyzed both dimensionally and discretely. In addition, because of possible violations of statistical assumptions (i.e., heterogeneity of variance, unequal sample sizes), the data was analyzed using both parametric and nonparametric techniques. However, because both parametric and nonparametic techniques yielded the same results, only the parametric results will be discussed.

a. Continuous Analyses

Table 13 illustrates the means and standard deviations for PCL-R total scores and Factor scores across all five MTC:R3 subtypes. Analysis of Variance (ANOVA) was conducted to determine whether significant differences existed among the means. First, in regards to PCL-R total scores, a one-way anova revealed that mean PCL-R total scores significantly differed across the five subtypes, $F = (4, 146)$ 2.5, $p < .05$. However, post hoc pair-wise comparisons (Tukey-B test) between the subtypes failed to yield significant results. A one-way anova revealed significant mean differences between the subtypes for PCL-R Factor 2 scores, $F = (4, 146)$ 3.7, $p < .01$. Post hoc pair-wise comparisons (Tukey-B) revealed a significant difference between the pervasively angry rapists ($M = 10.8$, $SD = 4.1$) and the sexual rapists ($M = 7.6$, $SD = 4.0$), $p < .05$. A third one-way anova revealed that mean Factor

Table 13

PCL-R Total and Factor Means and Standard Deviations for MTC:R3 Rapist Subtypes

Rapist Subtype	N	PCL-R Total	Factor 1	Factor 2
		M (SD)	M (SD)	M (SD)
Opportunistic	32	21.3 (9.8)	7.0 (5.3)	10.3 (5.2)
Pervasively Angry	39	22.5 (6.3)	7.7 (3.7)	10.8 (4.1)
Sadistic	33	23.3 (7.3)	8.4 (4.4)	10.8 (3.6)
Sexual	21	17.9 (6.4)	7.1 (3.2)	7.6 (4.0)
Vindictive	26	18.9 (7.4)	7.5 (4.1)	8.0 (4.4)

1 scores were not significantly different between the five groups.

In order to control for the correlation between Factor 1 and Factor 2 scores, anovas were conducted on the standardized residual factor scores (i.e, Factor 1-partialling Factor 2 and Factor 2-partialling Factor 1). Again, one-way anovas revealed significant differences on 'pure' Factor 2 scores, F = (4, 146) 3.7, $p<.01$, but not for 'pure' Factor 1 scores. Post hoc pair-wise comparisons were not significant for 'pure' Factor 2 scores.

Given the prediction that the sadistic and pervasively angry subtypes would have the highest PCL-R scores, the sexual subtype would have the lowest PCL-R scores, and the opportunistic and vindictive would lie inbetween, the five MTC:R3 subtypes were collapsed into three groups. The means and standard deviation for PCL-R total scores and factor scores across these three groups are presented in Table 14. Analysis of Variance (ANOVA) was again conducted to determine whether significant differences existed among the means. A one-way anova revealed that mean PCL-R total scores significantly differed across the three groups, F = (2, 148) 4.2, $p<.01$. Post hoc pair-wise comparisons (Tukey-B test) revealed that the mean PCL-R total score for the sadistic/pervasively angry group (M = 22.9, SD = 6.7) was significantly higher that the mean PCL-R total score for the sexual group (M = 17.9, SD = 6.4), $p<.05$.

Again, similar results were noted with Factor 2 scores. A one-way anova revealed significant mean differences between the groups, F = (2, 148) 5.2, $p<.01$. Post hoc pair-wise comparisons revealed that the mean

Table 14

PCL-R Total and Factor Means and Standard Deviations for MTC:R3
Collapsed Rapist Subtypes

Rapist Subtype	N	PCL-R Total	Factor 1	Factor 2
		M (SD)	M (SD)	M (SD)
Sadistic/ Pervasively Angry	72	22.9 (6.7)	8.0 (4.1)	10.8 (3.8)
Opportunistic/ Vindictive	58	20.2 (8.8)	7.2 (4.8)	9.3 (5.0)
Sexual	21	17.9 (6.4)	7.1 (3.2)	7.6 (4.0)

Factor 2 score for the sadistic/pervasively angry group (M = 10.8, SD = 3.8) was significantly higher than the mean Factor 2 score for the sexual group (M = 7.6, SD = 4.0) A one-way anova revealed that mean Factor 1 scores were not significantly different between the three groups.

As with the five group comparison, one-way anovas revealed significant differences on 'pure' Factor 2 scores, F = (2, 148) 4.5, $p<.01$, but not for 'pure' Factor 1 scores across the three groups. Post hoc pair-wise comparisons revealed that the 'pure' Factor 2 scores for the Sadistic/Pervasively Angry group were significantly lower than the 'pure' Factor 2 scores for the Sexual group, $p<.05$.

Given the prediction that the sadistic, pervasively angry, and opportunistic rapists would all score higher on Factor 2 scores than the sexual and vindictive rapists, the five groups were collapsed into two. Statistical analysis confirmed this prediction, t (149) = 2.51, $p<.01$. It was also predicted that the sadistic, vindictive and pervasively angry rapists would score higher on Factor 1 compared to the opportunistic and sexual rapists. Collapsing the five groups into two groups, however failed to confirm this prediction.

Thus, most of the earlier predictions were confirmed. However, the predicted results for the Factor 1 scores were not confirmed.

b. Categorical Analyses

The frequency distribution of MTC:R3 subtypes for the total sample, the psychopathic, and nonpsychopathic rapists is presented in

Table 15. A chi square analysis revealed significant differences between the psychopaths and nonpsychopaths across the five subtypes, $\chi^2 = (4, \underline{N} = 151)$ 9.3, $\underline{p} < .05$. The magnitude of this finding is in the medium range (effect size is .25).

Separate chi square analyses comparing each subtype to the remaining subtypes revealed that there is indeed a relationship between the opportunistic subtype and psychopathy, $\chi^2 = (1, \underline{N} = 151)$ 4.9, $\underline{p} < .05$. Phi, which is an indicator of effect size, was equal to .18 (indicating a small to medium magnitude of effect). All other chi square analyses were not significant and were in the low range of effect size.

B. MMPI/MMPI-2 Profiles

The following predictions were made regarding the expected relationship between MTC:R3 subtypes and Kalichman et al.'s (1989a, 1989b, 1990) MMPI profile types:

(1) Opportunistic - Profiles 1 (no significant elevations) and 2 (Pd elevated)

(2) Pervasively Angry and Vindictive - Profile 3 (D, Pd, Pa and Sc elevated)

(3) Sexual - Profile 4 (Pd, Sc, and Ma elevated)

(4) Sadistic - Profile 5 (D, Pd, Pa, Sc, and Ma elevated)

The percentage of MTC:R3 subtypes categorized into the MMPI profiles identified by Kalichman et al. are presented in Table 16

Table 15

Percentage Distribution of MTC:R3 Subtypes: Comparison Between
Psychopathic (P) and Nonpsychopathic (NP) Rapists

Rapist Subtype	Total % (n/151)	P % (n/27)	NP % (n/124)	Chi Square
Opportunistic	21.2 (32)	37.0 (10)	17.7 (22)	
Pervasively Angry	25.8 (39)	22.2 (6)	26.6 (33)	
Sadistic	21.9 (33)	30.0 (8)	20.2 (25)	9.3*
Sexual	13.9 (21)	3.7 (1)	16.1 (20)	
Vindictive	17.2 (26)	7.4 (2)	19.4 (24)	

Note. *$p < .05$

Table 16

MMPI/MMPI-2 Profile Types Categorized by MTC:R3 Subtypes

MTC:R3 Subtype	MMPI/MMPI-2 Profiles % (n/127)			
	1 & 2	3	4	5
Opportunistic	9.4 (12)	5.5 (7)	2.4 (3)	2.4 (3)
Pervasively Angry/ Vindictive	20.5 (26)	12.6 (16)	0.8 (1)	8.7 (11)
Sexual	6.3 (8)	3.9 (5)	0.8 (1)	2.4 (3)
Sadistic	8.7 (11)	3.1 (4)	7.1 (9)	5.5 (7)
Total Percentage	44.9	25.1	11.1	18.9

(n=127). The majority of subjects (44.9%) were categorized into Profiles

1 and 2. Similar results were found when only those profiles considered

valid and categorized as a definite match (n = 85) were included (see

Table 17). Several statistical analyses were conducted: (1) including

all MMPI profiles, (2) including only those MMPI profiles that were

categorized as a definite match (n = 87), and (3) elimiating any profile

with questionable validity (n = 85). Kappa was not significant for any

of these analyses. These results do not confirm the predictions made by

Kalichman et al. (1989a, 1989b, 1990).

C. Rorschach

The distribution of the subjects according to the MTC:R3 typology

is presented in Table 18. Subjects classified as Sadistic comprised the

largest group (n = 13; 32.5%), while subjects classified as vindictive

comprised the smallest group (n = 2; 5.0%). Also shown on Table 18 is

the distribution of mean number of responses on the Rorschach, as well

as the mean IQ scores. Although there appear to be some group

differences in regards to IQ, given the small sample size (especially

for the vindictive group) it is difficult to draw any conclusions.

Given that the degree of expressive aggression plays such a

prominent role in the MTC:R3 typology, it was decided to collapse the

five subtypes into a high expressive aggression group (consisting of the

sadistic, pervasively angry and vindictive subtypes (n = 26)) and a low

expressive aggression group (consisting of the opportunistic and sexual

subtypes (n = 14)). Both parametric (t-tests and ancovas) and

Table 17

MMPI/MMPI-2 Profile Types (Clear Match) Categorized by MTC:R3 Subtypes

MTC:R3 Subtype	MMPI/MMPI-2 Profiles % (n/85)			
	1 & 2	3	4	5
Opportunistic	12.9 (11)	3.5 (3)	2.4 (2)	3.5 (3)
Pervasively Angry/ Vindictive	23.5 (20)	10.6 (9)	0.0 (0)	8.2 (7)
Sexual	8.2 (7)	2.4 (2)	0.0 (0)	3.5 (3)
Sadistic	9.4 (8)	2.4 (2)	2.4 (2)	7.1 (6)
Total Percentage	54.0	18.9	4.8	22.3

Table 18

Distribution of Rorschach Responses and IQ for MTC:R3 Subtypes

MTC:R3 Subtype	% (n/40)	Rorschach Responses	IQ
Opportunistic	27.5 (11)	16.8	97.2
Pervasively Anger	27.5 (11)	17.2	101.5
Sadistic	32.5 (13)	18.8	98.8
Sexual Non-Sadistic	7.5 (3)	16.3	107.7
Vindictive	5.0 (2)	19.0	94.0

Note. IQ estimated from Vocabulary and Block Design (WAIS-R) subtests

nonparametric (Mann-Whitney test) analyses failed to yield significant results across the five Rorschach aggression scores.

It was predicted that the MTC:R3 sexual subtypes (sadistic and sexual non-sadistic) would show a greater percentage of passive human movement responses than the non-sexual subtypes (pervasively angry, vindictive and opportunistic). The results did not confirm this prediction. The sexual group was not significantly different from the non-sexual group.

Given the prediction that the five subtypes would differ in their degree of psychopathy, it was decided to collapse the subtypes into three groups: (1) pervasively angry and sadistic ($n = 24$), (2) opportunistic and vindictive ($n = 13$), and (3) sexual ($n = 3$). Given the small number of subjects in the sexual group, the third group was dropped from further analyses. Again, both parametric (t-tests and ancovas) and nonparametric (Mann-Whitney test) analyses failed to yield significant results across the following Rorschach indices: texture, shading, personalizations, reflections, egocentricity, and human movement passive.

PCL-R

The following analyses were conducted to replicate previous findings.

A. MMPI/MMPI-2

Pearson product-moment correlations (one-tailed) revealed a significant positive relationship between Pd(4) and PCL-R total scores (r = .16, p<.05) and Factor 2 scores (r = .15, p<.05). Pearson product-moment correlations between Ma(9) and PCL-R total and factor scores were not significant.

B. Rorschach

The distribution of the subjects according to classification of psychopathy is presented in Table 19. Approximately 28% were classified as psychopaths. Also shown on Table 19 is the distribution of mean number of responses on the Rorschach, as well as the mean IQ scores. The two groups did not differ significantly in terms of number of responses or IQ.

Significant Pearson product-moment correlations (one-tailed) between the PCL-R and Rorschach Indices, partialling for number of responses and IQ, are presented in Table 20. The planned comparisons are underlined and were tested at the .05 level. Each of the unplanned comparisons were tested at the .004 level so as to hold the familywise Type I error rate at α_{FW} = .05. The results indicate that texture is negatively correlated with PCL-R total scores, r = -.50, p<.001, Factor 1 scores, r = -.46, p<.01, and Factor 1 scores partialling Factor 2, r = -.32, p<.05. Sado-Masochism is positively correlated with PCL-R total scores, r = .40, p<.01, Factor 1 scores, r = .38, p<.01, and Factor 2 scores, r = .35, p<.01. Finally, Personalization is positively

Table 19

Distribution of Rorschach Responses and IQ for Psychopaths/Nonpsychpaths

Psychopathy	% (n/40)	Rorschach Responses	IQ
Psychopaths	27.5 (11)	17.2	99.7
Nonpsychopaths	72.5 (29)	18.9	99.1

Note. IQ derived from Vocabulary and Block Design (WAIS-R) subtests

Table 20

Significant Pearson Product-Moment Correlations Between PCL-R and Rorschach Indices (Controlling for Number of Responses and IQ)

Rorschach Indice	Total	Factor 1	Factor 2	F1 (2)	F2(1)
Texture	-.50***	-.46**	-.40	-.32*	-.19
Shading	-.23	-.26	-.15	-.22	-.00
Reflections	.11	.01	.19	-.12	.22
Personalizations	.54***	.39**	.58***	.10	.48***
Egocentricity	.25	.21	.24	.09	.16
Movement-active	.17	.19	.14	.14	.04
Movement-passive	.18	.08	.26	-.08	.26
AgMovment	.06	.09	.03	.09	-.02
AgContent	-.09	.00	-.14	.10	-.17
AgPotential	.14	.16	.07	.15	-.03
AgPast	.17	.20	.08	.19	-.04
Sado-Masochism	.40**	.38**	.35**	.24	.18

Note. F1 (2) indicates a partial correlation controlling for Factor 2. F2 (1) indicates a partial correlation controlling for Factor 1. Planned comparisons (those underlined) were tested at p = .05. Unplanned comparisons were tested at p = .05/12 = .004 in order to hold the familywise error rate at .05. *p<.05; **p<.01, ***p<.001 (one-tailed)

correlated with PCL-R total scores, r = .54, $p<.001$, Factor 1 scores, r = .39, $p<.01$, Factor 2 scores, r = .58, $p<.001$, and Factor 2 scores partialling Factor 1, r = .48, $p<.001$.

Separate chi square analyses comparing each Rorschach Indice suggested by Gacono and Meloy (1992; T=0, Reflection (Rf)>0, Egocentricity>0.45, Personal (PER)>2, and Diffuse Shading (Y)=0) with psychopaths and nonpsychopaths were performed. These analyses revealed that psychopaths show significantly less Texture and Shading responses than nonpsychopaths, χ^2 = (1, N = 40) 11.1, $p<.001$ and χ^2 = (1, N = 40) 7.1, $p<.01$, respectively. In addition, the nonpsychopaths show significantly less Personalizations than do psychopaths, χ^2 = (1, N = 40) 8.2, $p<.01$. Egocentricity and Reflections were not significantly different between the psychopaths and nonpsychopaths.

Discussion

The present study investigated whether the MTC:R3 dimensions and subtypes were associated with specific psychological and personality characteristics (as measured by the PCL-R, the MMPI/MMPI-2 and the Rorschach). The discussion of the findings will be organized as follows: First, the utility of the MTC:R3 classification system with a different population will be explored. Second, the results of the MTC:R3 dimensions will be examined. Third, the results of the MTC:R3 subtypes will be discussed. Fourth, the replication of previous findings regarding psychopathy and the Rorschach will be examined. Lastly, the

implications, general conclusions, limitations of the study, and directions for future research will be discussed.

MTC:R3 Distribution

Comparison of the current study with previous studies (Prentky & Knight, 1985; Barbaree et al, 1994; Brown, 1994) revealed that the current study classified a greater percentage of rapists as pervasively angry (25.8%) or vindictive (17.2%), while a smaller percentage were classified as opportunistic (21.2%) or sexual (13.9%). These findings might be a result of the more dangerous and/or violent nature of the current population. Even compared to Brown (1994), who also characterized her sample as a more dangerous one compared to the Canadian sex-offender population, the current study comprises subjects (offenders) who caused greater victim injury and received longer sentences, likely as a result. To illustrate, Brown (1994) reported that 36.6% of her sample had received a sentence of 10 years or greater (13.3%), or of life/indeterminant (23.3%), compared to 47.7% in the current sample (17.9% and 29.8%, respectively). Brown also reported that 23.4% of the victims had required hospitalization (15.0%) or were killed (8.4%), compared to 41.0% in the current sample (23.2% and 17.8%, respectively).

However, inconsistent with the idea that the current sample is a more 'dangerous' and violent one is the finding that only 18% of the current sample was classified as psychopaths (i.e., received a score of 30 or greater on the PCL-R) compared to 35% of Brown's (1994) sample and

45% of Prentky and Knight's (1988) sample. As mentioned previously, within populations of incarcerated offenders, psychopaths (identified by the PCL-R) have been found to be more violent and more criminally active than nonpsychopaths (c.f., Hare & Hart, 1992 for a review). Using police reports to analyze the circumstances regarding the offense, Williamson, Hare and Wong (1987) reported that compared to nonpsychopaths, psychopaths were more likely to have committed serious violent assaults and property crimes (although nonpsychopaths were more likely to have committed murders). Psychopaths tend to exhibit instrumental (goal oriented) as opposed to affective (expressive) aggression, use weapons, and select victims who are unknown to them (Serin, 1991; Williamson, Hare & Wong, 1987).

Given a body of research indicating that psychopaths tend to be more violent, it is somewhat surprising that the current sample comprised fewer psychopaths than previous studies using the MTC:R3 (although the incidence rate of 18% is similar to incidence rates reported by other studies using the PCL-R; Hare, 1991). Both the current study and Brown's study selected offenders from medium and maximum security facilities (with the percentages from each being fairly similar), and thus, subject selection procedures do not appear to provide an explanation for the discrepancies.

Brown (1994) scored the PCL-R after both a file review and an interview, while the current study utilized file information alone. Thus, it is possible that this difference in procedure may help account for some of the discrepancies. There is some controversy in the

literature regarding the effects of using file information alone to score the PCL-R. Wong (1984) reported that basing Checklist scores solely on file information may yield underestimates for high-scoring subjects. In contrast, Serin (1993) reported that when file information alone was used to rate the PCL-R, the result was an overestimate of file plus interview PCL-R ratings. However, Serin (1993) reported that in order to complete the PCL-R from file review alone, it was necessary to omit as many as six items and prorate PCL-R total scores. In the present study, only 38% of the subjects' PCL-R ratings had to be prorated, with the highest number of omitted items being three. The majority of prorated PCL-R total scores (82%) involved two or less omitted items. Thus, it is possible that the use of file information alone in the current study might have resulted in an underestimate in the rate of psychopathy among this sample.

Another major difference between the current study and Brown's (1994) study was the racial distribution. In the current study, 63% of the sample was caucasian and 28.5% was native. In Brown's study, 87% were caucasian, 8% were black and only 3% were native. Thus, the current sample consisted of a much higher percentage of native subjects. Although a previous study (Wong, 1984) did not find significant differences between caucasians and natives in the distribution, reliability and factor structure of the PCL, it is possible that racial differences might be contributing to differences in the distributions of MTC:R3 subtypes across samples.

Other than methodological differences, it is possible that actual regional differences in offender populations may account for some of the discrepancies. In a study looking at murders and sex crimes in Canada between 1988 and 1993, 19.3% of all murders occurred in British Columbia, despite having only 10.7% of the population. The rate of sexual offences per capita was also comparably higher (McLintock, 1996). Although the reasons for these findings are unknown, it has been suggested that more offenders might head towards British Columbia in an attempt to try to escape either arrest warrants or cold winters. Thus, it is possible that British Columbia might 'attract' a more violent and dangerous sexual offender.

The results of the current study suggest that incarcerated sexual offenders under federal jurisdiction in British Columbia, regardless of psychopathy, are violent and dangerous. It is quite interesting that the current study and the previous studies have all found quite varied distributions of MTC:R3 subtypes. Hence, the generalizability from sample to sample might be questionable. Clearly, further research examining the utility of the MTC:R3 within Canadian samples is warranted.

In particular, the current study and most, if not all, of the previous studies have investigated subjects from institutions under federal jurisdiction (i.e., offenders sentenced to two years or greater). However, statistics indicate that only a small proportion of sex offenders in Canada fall under the jurisdiction of the Correctional Service of Canada. Between 1987 and 1989, the majority of sex offenders

(i.e., greater than 75%) sentenced to a term of incarceration were given a sentence of two years or less, thereby falling under provincial jurisdiction (Research and Statistics Branch, Correctional Service of Canada, 1995). Thus, the use of the MTC:R3 with 'less serious' sexual offenders still needs to be explored.

Finally, the use of file information alone to score the PCL-R warrants further examination, particularly when distinguishing between Factor 1 and Factor 2 scores. Serin (1993) reported that six items were usually omitted when file information alone was used: glibness, conning, and shallow affect from Factor 1, proneness to boredom and early behaviour problems from Factor 2, and promiscuous sexual relations, which does not load on either factor. This may suggest that Factor 1 scores might be effected to a greater extent than Factor 2 scores. In the current study, items from Factor 1 also tended to be omitted more often than items from Factor 2. Thus, it is possible that when file information alone is used to score the PCL-R, Factor 1 scores might be influenced to a greater extent than Factor 2.

MTC:R3 Dimensions

A. PCL-R

a. Factor 1 Scores

Given that the MTC:R3 dimensions of expressive aggression, pervasive anger and sadism all appear to be measuring aspects of callousness and lack of remorse (at least indirectly), it was predicted that these three MTC:R3 dimensions would correlate with Factor 1 in a

positive direction. The results partially confirmed these predictions. Expressive aggression and pervasive anger were indeed significantly correlated with Factor 1 in a positive direction. In terms of the magnitude of effect, it is clear that pervasive anger shows a much stronger relationship with Factor 1 compared to expressive aggression. Indeed, in terms of effect size, sadism and expressive aggression both showed only a small magnitude of effect (although expressive aggression was significant and sadism was not).

It is not surprising that pervasive anger showed a much stronger relationship with Factor 1 than did expressive aggression. Expressive aggression measures the degree of aggression that occurs during the actual offense. Thus, it is quite possible for an offender to score fairly high on this dimension on the basis of one incident. An individual who, 'in the heat of the moment', severely assaults a single victim may receive a similar score as an individual who has inflicted harm on numerous victims. In contrast, pervasive anger measures more general and prevalent characteristics associated with an individual. As a result, the dimension of pervasive anger is likely tapping more of a personality or trait dimension than the dimension of expressive aggression. Hence, a stronger relationship between pervasive anger and Factor 1 would be expected.

Given that sadism is often associated with the interpersonal and affective characteristics measured by Factor 1, it is somewhat surprising that sadism was not correlated with Factor 1 scores. One possible explanation for this finding is the low base rate for items

within both sadism categories, which may have resulted in a floor effect. It would be interesting to know whether the base rate for the sadism dimensions in this study are comparable to previous studies (dimensional information has not been reported in previous studies).

In addition, in order to be classified as a sadistic rapist, the offender does not need to show many attributes. Although eight criterion items are scored in Category A of Sadism, only one is needed to be scored as a 'hit'. Thus, a sexual and aggressive preoccupation, as well as evidence that victim fear, pain and discomfort facilitate sexual arousal would be enough evidence to categorize the offender as sadistic. Given that fewer attributes are needed to arrive at this categorization, it is possible that this category is comprised of different types of sadistic rapists. For instance, is an offender who shows evidence of sham sadism in his consensual relations similar to an offender who does not? Is an offender who has intercourse with the victim after the victim has been killed similar to an offender who does not?

Prentky and Knight (1991) distinguish between an overt sadist and a muted sadist. However, it is quite possible that other types of sadistic rapists also exist. For instance, a rapist who mutilates the victim's erogenous zones after the victim is dead might be more passive-aggressive than a rapist who leaves the victim after death occurs. Indeed, a 'truly' sadistic rapist might not be interested in inflicting more injury after death occurs because it may be the victim's pain and fear that is sexually arousing.

b. Factor 2 Scores

Given that both measure impulsivity, a positive correlation between Factor 2 and the MTC:R dimensions of unsocialized behaviour-juvenile and adult was predicted. In addition, because pervasive anger also seems to be tapping into a lack of control, it was also expected to correlate positively with Factor 2. Finally, it was predicted that planning would be negatively correlated with Factor 2. All of these predictions were confirmed. However, an examination of the partial correlations suggests that the results are not as straightforward as they appear. For instance, the partial correlation between pervasive anger and Factor 2 (controlling for Factor 1) was not significant. This suggests that the positive correlation between pervasive anger and Factor 2 was due to the overlap between Factor 1 and Factor 2.

In addition, unsocialized behaviour-juvenile was positively correlated with Factor 2 (controlling for Factor 1) and negatively correlated with Factor 1 (controlling for Factor 2). This suggests that the overlap between Factor 1 and Factor 2 cancelled the relationship between unsocialized behaviour-juvenile and Factor 1. It is somewhat surprising that a negative relationship exists between unsocialized behaviour-juvenile and Factor 1. Unsocialized behaviour-juvenile measures such things as problems in elementary and junior high school, number of non-sexual victimless offenses, running away, vandalism and fighting. Although the effect size is only in the medium range, it is still a surprising result.

Perhaps these results are due to some moderating factor not yet identified, such as Attention-Deficit/Hyperactivity Disorder (ADHD). It may also be that the dimension of unsocialized behaviour is tapping into more expressive aggression, while Factor 1 is tapping into more instrumental aggession. It is clear that this warrants future study.

Finally, it is also surprising that the effect size of the relationship between planning and Factor 2 was quite small, although in the predicted direction. However, this may be due to a difference in the type of impulsivity. Prentky and Knight (1986) identified three types of impulsivity: impulsivity in the criminal act, a general lifestyle impulsivity, and transiency, as reflected in ratings of aimlessness and unstable employment history. Factor 2 measures general lifestyle impulsivity, while the MTC:R3 dimension of planning measures impulsivity in the criminal act. Although Prentky and Knight (1986) did not find a correlation between offense impulsivity and general lifestyle impulsivity, the current results indicate a small negative relationship.

c. Total PCL-R Scores

A positive correlation was predicted between the MTC:R3 dimensions of expressive aggression and pervasive anger and PCL-R total scores. Both predictions were confirmed, although pervasive anger showed a much stronger relationship than expressive aggression. Again, this would be expected given that the dimension of pervasive anger measures more general characteristics than does the dimension of expressive aggression. In addition, although not expected, unsocialized behaviour-

juvenile and adult showed a positive relationship with PCL-R total scores. However, it appears that Factor 2 accounts for most of the relationship with PCL-R total (especially for unsocialized behaviour-adult). These results confirm the findings of Harris, Rice and Quinsey (1994) who also found that the PCL-R (especially Factor 2 items) and childhood history variables were indicators of a taxon underlying psychopathy.

B. MMPI/MMPI-2 Scores

Given that the MMPI scale Pd (4) seems to measure only the social deviance components of psychopathy (i.e., Factor 2; Hare, 1985), it was predicted that Pd (4) would correlate in a positive direction with the MTC:R3 dimensions of unsocialized behaviour and pervasive anger. The results confirmed the latter prediction: pervasive anger correlated positively with Pd (4). However, unsocialized behaviour-juvenile and adult was not significantly correlated with Pd (4). Given the previous finding that unsocialized behaviour-juvenile and adult correlated with Factor 2, this result is somewhat surprising.

Harris and Lingoes (1968, as cited in Graham, 1990) suggest that the MMPI scale of Pd (4) is composed of five subscales: Familial Discord, Authority Problems, Social Imperturbability, Social Alienation and Self Alienation. The dimensions of pervasive anger and unsocialized behaviour both seem to be captured to some extent by the second subscale, Authority Problems (although pervasive anger would likely be captured to a greater extent). It is possible that Pd (4) and

unsocialized behaviour were not correlated because the other four subscales were not being tapped.

A somewhat surprising result was the positive correlation between sadism-category A and Pd (4). In terms of effect size, the relationship would be deemed as moderate (Cohen, 1992). Given that sadism-category A is measuring such items as sexual and aggressive preoccupation, increased sexual arousal with victim pain/fear, evidence of sham sadism, ritualization of violence, intercourse after death and mutilation after death, it is not immediately clear why this relationship was found. However, when you consider that individuals with elevated Pd (4) are usually characterized by angry disidentification with family and society, a disregard for the consequences of their behaviour, lack of empathy, cynicism, aggression and shallow social relationships (Graham, 1990), it is somewhat more understandable.

C. Rorschach

It was predicted that the MTC:R3 dimensions of sexualization and sadism would be correlated in a positive direction with Mp, as elevations in Mp have been thought to reflect an abuse of fantasy (Exner, 1986). In addition, it was predicted that the MTC:R3 dimensions of expressive aggression and pervasive anger would be positively correlated with the aggression responses. Finally, it was predicted that the Rorschach sado-masochism response would be positively correlated with the MTC:R3 dimension of sadism, both category A and B.

The first prediction was not confirmed: sexualization and sadism were not significantly correlated with Mp. However, one of the contributing factors was likely the low base rate of Mp responses (M = .89, SD = .91). The second prediction was partially confirmed. Expressive aggression was correlated with both aggressive movement and aggressive content responses in a positive direction. The magnitude of effect would be considered medium (Cohen, 1992). However, pervasive anger was not significantly correlated with the Rorschach indices of aggression. This is a very interesting finding as it has been suggested that offenders might censor their aggressive responses because they recognize the inappropriateness of these responses in social situations (Exner, 1986). Although the current population may have censored their responses (indeed several subjects admitted to censoring their responses), the relationship between these variables was still evident. It is possible, however, that the other indices of aggression were indeed censored. This may help to explain the lack of relationship between the indices of aggression and pervasive anger.

Finally, the predicted relationship between the MTC:R3 dimension of sadism-category A and B and the sado-masochism responses was partially confirmed. Sadism-category A showed a positive correlation (medium effect size) with the sado-mashochism responses, but sadism-category B did not. Prentky and Knight (1991) have not really explained the rationale of dividing the sadism dimension into two categories. Based on the results of the current study, it appears that the two categories are tapping into different concepts.

Given the decision to treat the Rorschach part of this study as an exploratory venture, it might be helpful to look at the correlations between the MTC:R3 dimensions and the Rorschach indices that were significant but not predicted. It must be kept in mind, however, that Bonferroni corrections were not applied and thus, the familywise error rate is quite high. Nonetheless, mindful of that caveat, these relationships might be of heuristic value to future studies.

The presence of texture responses, which are thought to reflect a need for interpersonal closeness or affectional relatedness (Exner, 1986) was positively correlated with sexualization-secondary, and negatively correlated with social competence. Since sexualization-secondary measures reflect a concern with masculinity and a preoccupation with sexual and social inadequacy, this positive relationship with texture is understandable. Perhaps, the more one is concerned with social and sexual inadequacies, the more one desires interpersonal closeness. The negative correlation between social competence and texture suggests that as social competence decreases, one becomes more oriented towards interpersonal closeness.

Shading responses, which are thought to reflect anxiety and helplessness (Rapaport et al., 1946; Viglione, 1980) were negatively correlated with the MTC:R3 dimension of planning. This suggests that greater planning is associated with decreased anxiety and helplessness, and vice versa.

Reflection, egocentricity and personal responses, all of which are thought to reflect narcissism and self-aggrandizement (Meloy, 1994) were

all found to correlate positively with unsocialized behaviour-juvenile. Exner (1986) has suggested that these indices might also reflect immaturity, as well as self-centeredness. This might help explain the positive relationship between unsocialized behaviour-juvenile and the Rorschach reflection, egocentricity and personal responses.

Finally, several aggression scores were correlated with various MTC:R3 dimensions. Aggressive potential on the Rorschach was negatively correlated with sexualization-secondary, aggressive past was positively correlated with sadism-category A, and sado-masochism was positively correlated with social competence. The moderate relationship between the sado-masochism responses and the MTC:R3 dimension of sadism-category A makes most intuitive sense. However, it is clear that these relationships will need to be explored with a much greater sample size.

MTC:R3 Subtypes

A. PCL-R

a. Continuous Analyses

It was predicted that the MTC:R3 subtypes of pervasively angry and sadistic would have the highest psychopathy scores (scoring higher on both Factor 1 and Factor 2 scores), the MTC:R3 subtypes of opportunistic (scoring higher on Factor 2, but not Factor 1) and vindictive (scoring higher on Factor 1, but not Factor 2) would have the second highest psychopathy scores, and the MTC:R3 sexual subtype would have the lowest psychopathy scores (scoring lower on both Factor 1 and 2). For the most part, the results confirmed this prediction for total PCL-R scores. The

mean PCL-R total scores were all in the predicted direction. However, post hoc pair-wise comparisons revealed that only the pervasively angry/sadistic group was significantly greater than the sexual group.

Considering the Factor 1 and 2 scores separately, it was expected that the combined group of pervasively angry, sadistic and vindictive subtypes would have significantly higher Factor 1 scores compared to the combined group of opportunistic and sexual subtypes. These results were not confirmed. It was also predicted that the combined group of pervasively angry, sadistic and opportunistic subtypes would have significantly higher Factor 2 scores compared to combined group of vindictive and sexual subtypes. These results were confirmed.

When the mean PCL-R total, Factor 1 and Factor 2 scores for the five MTC:R3 subtypes are examined, it appears that two naturally occuring groups seem to exist (at least for PCL-R total and Factor 2 scores). One group appears to consist of the opportunistic, pervasively angry and sadistic rapists, while the other group consists of the sexual and vindictive rapists. In terms of Factor 1 scores, all of the subtypes seem to have similar scores. Thus, it appears that Factor 2 scores seem to play a more important role in the current study in differentiating the rapist subtypes. However, as mentioned previously, it is possible that the use of file information alone to score the PCL-R might have effected Factor 1 scores to a greater extent than Factor 2 scores.

To the extent that they can be compared, for the most part, the results of the current study do not confirm the results of Brown (1994).

Brown compared four groups: opportunistic, pervasively angry, sexual/sadistic, and vindictive. Similar to the present study, Brown's results indicated significant group differences for PCL-R total and Factor 2 scores. However, in contrast to the present study, Brown also found significant group differences for Factor 1 scores. Interestingly though, Brown used both file information and interview to score the PCL-R.

In terms of post hoc analyses, Brown reported that the mean PCL-R score was significantly higher for the opportunistic rapists compared to the sexual and vindictive types. In Brown's study, the mean Factor 1 score was significantly higher for the opportunistic rapists compared to the vindictive rapists, while there were no significant subtype differences for mean Factor 2 scores. In the current study, post hoc comparisons were not significant for either total or Factor scores.

Comparison with Barbaree et al. (1994) also reveals significant differences. Barbaree et al. (1994) compared two groups: (a) nonsexual-consisting of vindictive and opportunistic rapists, and (b) sexual-consisting of sexual-nonsadistic and sadistic rapists. The pervasively angry subtype was excluded from Barbaree et al.'s analyses as only one rapist had been classified to this subtype. Their results indicated no significant differences in total PCL-R scores and Factor 1 scores. With respect to Factor 2 scores, sadistic rapists scored significantly higher than the sexual-nonsadistic rapists.

Again, comparison of the current study with the two previous Canadian studies utilizing the MTC:R3 indicates very different results.

It is clear that the generalizability of the MTC:R3 needs further investigation.

b. Categorical Analyses

Although no specific predictions were made regarding the categorical analyses, based on Brown's (1994) study one might expect the opportunistic and pervasively angry subtypes to have a greater percentage of psychopaths compared to the other subtypes. The present results indicated that the opportunistic subtype did comprise a greater percentage of psychopaths. However, this was not the case with the pervasively angry subtype.

The above findings are interesting as it is generally thought, at least in the general pubic and media, that sadistic rapists are the 'psychopaths'. In the current study, of the 27 subjects identified as psychopaths, 37% (n=10) were classified as opportunistic, while 30% (n=8) were classified as sadistic. It is also somewhat surprising that opportunistic rapists are characterized by a greater percentage of psychopaths. Knight and Prentky (1990) describe the opportunistic rapist as offenders who show extensive histories of unsocialized behaviour, do not show any evidence of gratuitous force or aggression, and are characterized by impulsive, unplanned, predatory assaults. For a large percentage, however, there also appears to be an affective component characterized by superficiality, lack of remorse and callousness.

As has been suggested for the sadistic rapists, it is possible that the opportunistic rapists might also consist of different types. Knight and Prentky (1990) describe the opportunistic rapist as characterized by "impulsive, unplanned and predatory assaults". To include impulsive and predatory in the same description seems almost contradictory. Perhaps an 'impulsive' opportunistic rapist and a 'predatory' opportunistic rapist can be identified, with the difference being the locus of control. The latter group may seek out opportunities, while the former group just might encounter opportunities. Perhaps the 'predatory' opportunistic might be characterized by a greater degree of psychopathy. Again, further research is needed.

B. MMPI/MMPI-2

Based on the findings of Kalichman and colleagues (Kalichman, 1990; Kalichman et al., 1989a, 1989b), specific predictions were made regarding the expected relationship between MTC:R3 subtypes and MMPI/MMPI-2 profiles. However, these predictions were not confirmed. A greater percentage of subjects were categorized as either profile 1 (no significant elevations) or profile 2 (Pd only significantly elevated).

The difficulty with cluster analysis (which is what Kalichman et al. utilized) is that the basis for forming subgroups may be unique to a particular sample (Everitt, 1979). Kalichman obtained all of his subjects from "a state correctional facility". Each study involved between 111 and 127 subjects. It is not clear whether all of these

subjects are indeed different for each study. In addition, Kalichman reports that a disproportionate number of subjects were Black (between 61-69%). Thus, the lack of replication may be the result of sample characteristics.

However, the results of the current study support the majority of previous findings which indicate that the identification of specific MMPI profiles for different types of sexual offenders, or for criminals in general, has not yielded much success. In terms of the profiles identified by Kalichman, it is clear that further research is needed with varying populations.

C. Rorschach

The difficulty with the analyses involving Rorschach responses and the MTC:R3 subtypes was the unequal sample sizes. The sexual and vindictive subtypes consisted of only 3 and 2 subjects, respectively. Thus, any conclusions that could be drawn regarding the Rorschach and the MTC:R3 subtypes were quite limited.

Based on the premise that sadistic and pervasively angry rapists would have higher psychopathy scores, it was predicted that these two subtypes would be associated with greater reflection, personal and sado-masochism responses, and fewer texture and diffuse shading responses. These results were not confirmed. However, the moderating effect of psychopathy was not directly examined.

It was also predicted that the sexual and sadistic rapists would be characterized by greater Mp responses. However, the results did not

confirm this prediction. Again, a low base rate for Mp likely contributed to this null finding.

Finally, with respect to the Rorschach aggression scores, it was predicted that a high expressive aggression group (consisting of sadistic, pervasively angry and vindictive subtypes) would show greater aggression responses than a low expressive aggression group (consisting of opportunistic and sexual subtypes). Again, results did not confirm this prediction.

The lack of significant findings for the Rorschach and MTC:R3 analyses are likely due to several factors, such as small sample size, a low base rate of responses, and the loss of information when dimensions are collapsed into subtypes. The advantage with dimensional conceptions is that they emphasize quantitative gradations rather than qualitative, discrete, all-or-none category distinctions (Eysenck, 1987). Indeed, categorical conceptions have been criticized for ignoring large individual differences within particular categories. Thus, it is not surprising, that with such a small sample size, collapsing the subjects into subtypes resulted in a loss of information.

PCL-R and the MMPI/MMPI-2

Hare (1985) reported that PCL-R total score was significantly correlated with the MMPI scales of Pd (.26) and Ma (.27). The present study also found that Pd was significantly correlated with PCL-R total scores (r = .16) and Factor 2 scores (r = .15), although the effect size is somewhat smaller. However, Ma was not significantly correlated with

either PCL-R total scores or Factor scores. It is not clear why Hare's results were not confirmed. Again, it could be a question of sample differences, although given that elevations in Ma are usually associated with distractibility, narcissism, poor self-control and superficiality, one would expect an association between PCL-R total scores and Ma in this population.

PCL-R and The Rorschach

Gacono and Meloy (1992) identified five Rorschach variables that differentiated psychopaths from nonpsychopaths: T=0, Reflection (Rf)>0, Egocentricity>0.45, Personal (PER)>2, and Diffuse Shading (Y)=0. The current study partially confirmed their findings. The Rorschach responses of psychopaths were characterized by significantly less texture and shading responses, and greater personalization of response. The two groups did not differ significantly in terms of egocentricity or reflection responses.

General Conclusion

The present study demonstrates that the MTC:R3 is strongly related to psychopathy. Rapists classified as sadistic or pervasively angry have the highest mean psychopathy scores, whereas rapists classified as sexual have the lowest mean psychopathy scores. When considering the relationship between psychopathy and rapist subtypes, the opportunistic rapists include a greater percentage of psychopaths than the other four subtypes.

Although several ideas regarding future research have already been discussed (i.e., generalizability of MTC:R3 with varying populations, defining additional subtypes, and the use of file information alone to score psychopathy), several additional areas of research interest should be mentioned. For instance, Prentky and Knight (1991) have suggested that classifying rapists into subtypes may make it easier to devise ways of better managing and treating rapists. For instance, reducing impulsivity would seem to be an important treatment goal for opportunistic rapists compared to sadistic rapists, whereas controlling deviant fantasies might be a more relevant focus for sexual and sadistic rapists compared to opportunistic rapists. The current study suggests that in addition to motivation, psychopathy might be another important consideration when identify rapist subtypes. For instance, opportunistic rapists low in psychopathy might require a treatment approach different from the one devised for an opportunistic rapist high in psychopathy.

Although there have been relatively few controlled studies of treatment response in well-defined groups of psychopaths, milieu therapy has frequently been recommended as the treatment of choice for psychopathy (Reid, 1981; Suedfeld & Landon, 1978). However, in recent studies evaluating the effectiveness of intensive milieu therapy programs for incarcerated or institutionalized offenders, compared to nonpsychopaths, psychopaths showed less motivation, effort and improvement in treatment, and were more likely to terminate treatment prematurely (Harris et al, 1991; Ogloff et al., 1990; Rice et al., 1992). As well, there was some evidence that milieu therapy may even

increase the recidivism rate of psychopaths (Rice et al., 1992). Given these findings, it would be important to identify psychopaths in the various MTC:R3 subtypes, prior to initiating treatment.

The current study also suggests that a great deal of information may be lost if the MTC:R3 dimensions are ignored in favor of the MTC:R3 subtypes. As mentioned above, categorical conceptions have often been criticized for ignoring large individual differences within particular categories (Esyenck, 1987). The MTC:R3 is no exception, and thus, reseachers need to investigate both the dimensions and the subtypes.

Although the current study did not confirm the specific predictions of Kalichman et al. (1989a; 1989b; 1990) regarding the MMPI/MMPI-2 and the MTC:R3, further research on these relationships is warranted. It is quite possible that substantial ethnic and criminological differences in population characteristics can account for the lack of concordance between the present study and Kalichman et al.'s. It is interesting that 67% of the MMPI/MMPI-2 profiles in the present study could be categorized into one of four profile types. Although these profile types do not appear to be associated with MTC:R3 subtypes, it is possible that they may be diffentiated in other ways. Again, further research is needed.

Finally, the preliminary results of the Rorschach component of the present study suggest directions for future research. The Rorschach indices of aggression appear to be related to measures of expressive aggression and sadomasochism, and may offer another means of tapping into these dimensions. It is also noteworthy that the results of Gacono

and Meloy (1992) were to a large extent replicated. This outcome

suggests that the Rorschach could be very useful for identifying

different aspects of sexual aggression (i.e., psychopathy, nature of

aggressive tendencies, etc.).

Limitations of the Current Study

One of the limitations of the current study, along with the MTC:R3

in general is the reliance on institutional file information. Although

only one file had to be eliminated due to insufficient information,

there were many case instances in which greater information would have

been helpful. Knight, Prentky and Cerce (1994) have recently addressed

this issue by developing the Multidimensional Assessment of Sex and

Aggression (MASA). This inventory was designed to obtain information

regarding the following: Social and work history, school and adult

behavior, quality of anger/aggression, and sexual behavior. Initial

findings are promising. It would be interesting to investigate the use

of the MASA with the current population.

A second limitation of the current study was the relatively few

number of subjects administered the Rorschach. Due to very small

samples in the sexual and vindictive subtypes, conclusions regarding the

Rorschach and the MTC:R3 subtypes were quite limited, especially for

those groups. It would be helpful to investigate the relationship

between the Rorschach and the MTC:R3 in a larger number of subjects,

which should allow for a greater frequency of each subtype. In

addition, it would also be useful to obtain some idea regarding the

degree of response censorship subjects made. Several subjects admitted to censoring their Rorschach responses (particularly those involving sexual or aggressive aspects).

An important confound regarding the Rorschach results may have been the effect of offender treatment. Of the subjects who acknowledged censoring their responses, several stated that they thought it was an important part of their treatment to acknowledge the responses that had disturbed them. Although participation in treatment programs had been noted in the present study, it was virtually impossible to determine whether the treatment had been a 'success'. Of the subjects administered the Rorschach, approximately 53% had participated in prior treatment programs. Thus, it would be important to investigate the effect treatment might have on an offender's response to the Rorschach.

Finally, although already mentioned, it must be stressed that the present study only investigated a small percentage of the sexual offender population in British Columbia. The utilization of the MTC:R3 with 'less serious' offenders remains to be explored. For that matter, the generalizability with more serious sexual offender populations continues to warrant investigation. In general, however, the Massachusetts Treatment Centre Classification System for Rapists offers an interesting avenue to explore both motivations for sexual offenses and possible treatment options.

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Appendix A

Simon Fraser University

Informed Consent By Subjects To Participate In A Research Project

The university and those conducting this project subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of subjects. This form and the information it contains are given to you for your own protection and full understanding of the procedures. Your signature on this form will signify that you have received a document which describes the procedures, and benefits of this research project, that you have received an adequate opportunity to consider the information in the document, and that you voluntarily agree to participate in the project.

Having been asked by Shauna Darcangelo of the Department of Psychology of Simon Fraser University to participate in a research project experiment, I have read the procedures specified in the Information Sheet For Subjects.

I understand that I may withdraw my participation in this experiment at any time.

I also understand that I may register any complaint I might have about the project with the chief researcher named above or with Dr. Webster, Chair, Department of Psychology, Simon Fraser University.

I may obtain copies of the results of this study, upon completion, by contacting:

> Shauna Darcangelo
> Department of Psychology
> Simon Fraser University
> Burnaby, B.C. V5A 1S6

I have been informed that the research material will be held confident by the principal investigator.

I agree to participate by completing the Rorschach, as well as the Vocabulary and Block Design subtests, as described in the Information Sheet, during _____ (date) at Mountain Correctional Institution.

Name (please print): _____
Address: _____
_____

Signature: _____ Witness: _____
Date: _____ Date: _____

Appendix B

FPS: _____ **Subject ID:** _____ Date: ____ / ____ / ____
                                                                      Year Month Day

<u>Demographic Data</u>:

Date of Birth: ____ / ____ / ____   Age: _____
             Year Month Day

Ethnicity: Caucasian ☐ Native ☐ Asian ☐ East Indian ☐ Black ☐ Other _____

Education : <High Sch ☐ High Sch ☐ Univ/Colleg ☐ Post grad ☐ Other _____

<u>Criminal Status:</u>

Date Admitted to federal custody: ___ / ___ / ___ Length of Incarceration: ___ / ___ / ___
                                Year Month Day   Year Month Day

Length of Sentence: ____ / ____ / ____ or Life (circle)   G.S.I.O.R.: _____
              Year Month Day

Detained: Yes ☐ No ☐ Date ___ / ___ / ___ yr/mth/day   DSO: Yes ☐ No ☐
Current Offenses: _____

Previous Criminal Convictions:

Age	Date	Charge	Disposition
	yr mth day		
___	___ / ___ / ___	_____	_____
___	___ / ___ / ___	_____	_____
___	___ / ___ / ___	_____	_____
___	___ / ___ / ___	_____	_____

<u>Treatment While Incarcerated:</u> Date Completed yr mth day

RPC -Sex off. prog. ☐ ___ / ___ / ___   RPC- Inadeq. off. Tx ☐ ___ / ___ / ___
SOAP (sex off. tx) ☐ ___ / ___ / ___   Cog Living Skills ☐ ___ / ___ / ___
Substance Abuse ☐ ___ / ___ / ___   Living W/O Violence ☐ ___ / ___ / ___
Pre-Release Skills ☐ ___ / ___ / ___   Anger Management ☐ ___ / ___ / ___
Indiv Tx ☐ ___ / ___ / ___   _____ ☐ ___ / ___ / ___
_____ ☐ ___ / ___ / ___   _____ ☐ ___ / ___ / ___

<u>Offense Characteristics:</u>

Victim/Offender Relationship: Family Member ☐ Relationship? _____
                Familiar ☐ Stranger ☐ Victim a Prostitute? NO ☐ YES ☐

<u>Developmental History:</u>

Childhood Abuse: Physical Y ☐ N ☐   Sexual Y ☐ N ☐
History of Drug Abuse:
   Alc ☐ Coc ☐ Heroin ☐ Marij ☐ Hash ☐ LSD ☐ Other _____ ☐
Parental Drug Abuse (Alcohol / Drug):
   Mother ☐ ☐ Father ☐ ☐ Stepm ☐ ☐ Stepf ☐ ☐ Other ____ ☐ ☐