

# Validating the Components of a Taxonomic System for Rapists: A Path Analytic Approach

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This study was part of a series designed to validate a classification system for rapists developed at the Massachusetts Treatment Center. This system (MTC:R2) determines subtypes according to three major dimensions: the meaning of the aggression in the rapist's offenses (expressive versus instrumental), the meaning of the sexual behavior (compensatory, exploitative, displaced anger, or sadistic), and the degree of general lifestyle impulsivity (low or high). A total of 201 rapists were subtyped using this system. A path analytic approach was used to relate family, juvenile, and adult histories to the main decisions of subtype assignment. The classification of an offender on each of the three dimensions was informed by a developmental perspective. Results provided support for the use of the discriminators used and highlighted the deficiencies in our current knowledge regarding developmental precursors. These results were integrated with the findings from other studies using MTC:R2 and suggestions for revisions to the current classification system were discussed.

The well-documented heterogeneity of men who sexually assault adult women<sup>1</sup> has provided the impetus for numerous attempts at defining more homogeneous subgroups.<sup>2-9</sup> With the exception of the system originally proposed by Cohen and his colleagues,<sup>2</sup> none of the taxonomies has been subjected to empirical scrutiny and no validity or reliability

data have been reported on any of them. Although several subtypes discussed in the clinical literature may make conceptual sense, there is currently little empirical basis for assessing their validity or reliability. The issue of taxonomic differentiation of sexual offenders has been the primary focus of our research program at the Massachusetts Treatment Center.

Many of the early classification systems for rapists<sup>1</sup> had their roots in psychoanalytic drive theory. These systems formulated subtypes on the basis of an identified characteristic interplay of aggressive and sexual drives for each type. The earliest systems<sup>6</sup> were less elaborate in their integration of other

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clinical data. Later systems<sup>4</sup> attempted to incorporate additional data regarding, for example, degree of psychopathology, substance use, character disorder, and other criminal history. The original system developed at the Massachusetts Treatment Center (MTC: R1), which served as the point of departure for our research, evolved within a psychodynamic perspective but also incorporated additional clinical data about the offender and his offenses.<sup>2</sup> The four subtypes discussed in Cohen *et al.*<sup>2</sup> were conceptualized around a simultaneous consideration of the nature of the aggression in the offense, the quality and nature of the sexual behavior in the offense, and the offender's motivation in committing the offense. The *compensatory* type was hypothesized to rape as a defense against feelings of inadequacy and to restore feelings of competence or power. Aggression in the offense was typically no more than that necessary to gain victim compliance. Frequently, the offenses were planned and carried out according to a preexisting fantasy. The *exploitative* type was described as committing impulsive, predatory offenses that were more determined by opportunity. Again, aggression was primarily in the service of gaining victim compliance. The *displaced anger* type was characterized as offending in a state of rage, frequently manifesting gratuitous aggression, with the aim of harming, humiliating, and degrading his victim. Finally, the *sex-aggression-defusion* type was also highly aggressive, but differed from the displaced anger type in that his

sexual and aggressive feelings were hypothesized to escalate synergistically. In sum, hypothesized differences in sexual and aggressive motivational components were the keys to distinguishing clinically meaningful subtypes of rapists.

Analyses of the interrater agreement on subtype assignment to these four types yielded unsatisfactory results.<sup>1</sup> An evaluation of the discrepant cases suggested that the heterogeneity among compensatory types on lifestyle impulsivity was contributing substantially to difficulties in differentiating these offenders from exploitative offenders.<sup>1,10</sup> We attempted to solve this reliability problem by introducing an evaluation of lifestyle impulsivity into the scheme.

When this assessment of impulsivity was combined with the judgments of the nature of the aggression and the meaning of sexuality in the offense, the three-step decision tree depicted in Figure 1 resulted. In this scheme the quality of the offender's aggression is first categorized as either instrumental (i.e., in the service of gaining victim compliance) or expressive (i.e., in the service of venting rage or hate). Within the instrumental branch the meaning of the sexual behavior is judged to be either compensatory or exploitative, and within the expressive branch the meaning of the aggression is judged as either displaced anger or sadistic. Finally, within each of the four types produced by the second level decisions, the degree (high or low) of the offender's lifestyle impulsivity is determined on the basis of his behavior in nonoffense

## Taxonomic System for Rapists

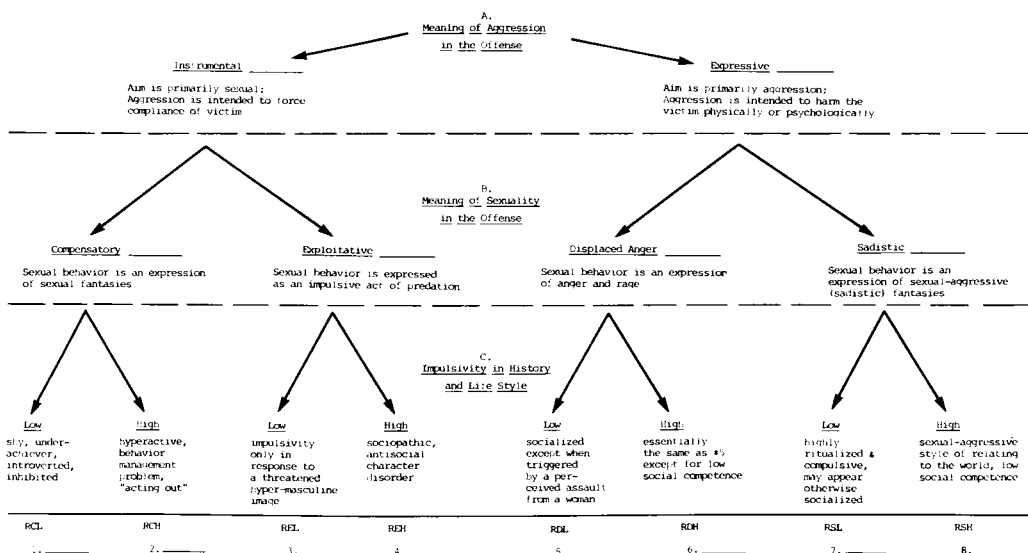


Figure 1. Decision tree for subtyping rapists. RCL, rapist compensatory low impulse; RCH, rapist compensatory high impulse; REL, rapist exploitative low impulse; REH, rapist exploitative high impulse; RDL, rapist displaced anger low impulse; RDH, rapist displaced anger high impulse; RSL, rapist sadistic low impulse; RSH, rapist sadistic high impulse.

areas (e.g., jobs, relationships, changes in residence, etc.). Thus, the three-step decision process leads to the assignment of one of eight possible subtypes: a low- or high-impulse compensatory type, a low- or high-impulse exploitative type, a low- or high-impulse displaced anger type, and a low- or high-impulse sadistic type. Profiles and vignettes of each of these eight types may be found elsewhere.<sup>7</sup>

Although these three subtype-defining dimensions have commonly been used as type differentiators and descriptors in the clinical literature and have been shown to evidence some discriminatory power within sexual offender samples,<sup>1</sup> the amount of empirical research testing their validity as type definers has been minimal.<sup>10-12</sup> The aim of the present study was, therefore, to as-

sess the concurrent validity of these major taxonomic distinctions, using a larger sample of rapists than previously available. Because of our interest in the developmental antecedents of the types, we decided to take a path analytic approach to predicting these dimensions, using events and factors antecedent in time to the sexual offending. Thus, we examined what factors led to instrumental or expressive aggression, compensatory, exploitative, angry, or sadistic sexuality, and impulsive or nonimpulsive lifestyle. In addition, because of the difficulties in distinguishing displaced anger and sadistic rapists,<sup>7</sup> we also explored specifically the prediction of a sadistic outcome. A synthesis of the results of this study with our previous work helps to identify both the valid distinctions of the present typology and as-

pects of this system that require refinement and restructuring.

### Method

**Subjects** The subjects in this study were 201 male rapists who had been committed to the Massachusetts Treatment Center for Sexually Dangerous Persons (MTC) in Bridgewater, Massachusetts. The MTC was established in 1959 under special legislation for the purpose of evaluating and treating individuals convicted of repetitive and/or aggressive sexual offenses. The legislation provides for a civil, day-to-life commitment by the court. Release is contingent on being found no longer "sexually dangerous." The 201 rapists in our sample included 107 who were in residence at the time of the study and 94 who had been released from the Center after varying lengths of treatment. Demographic characteristics of both subsamples are provided in Table 1. Because of the similarity between the resident and discharged offenders, we collapsed the two subsamples to form one larger group for purposes of analyses.

This group ( $n = 201$ ) included all the offenders who could clearly be designated as rapists (i.e., individuals who had forced sexual relations with females over the age of 16) and from whom adequate data collection was possible (see "Procedures" below). We did not include aggressors against men or children, even if rape had occurred, in the interests of preserving a purer sample. This decision was based on the assumption, shared by other clinicians and investigators who work with sexual offenders and supported by a previous

study,<sup>13</sup> that the age of a sexual offender's victims (as well as the nature of the perpetrated acts) are important clinical considerations.

**Procedure** *File Coding* The source for the data of this study was the clinical file of each subject. These files included all information gathered during evaluation at the Center and all information subsequently added during commitment. The information came from a variety of sources, including past institutionalization records, school and employer reports, parole summaries, probation records, and social service notes. The evaluation process itself involved clinical interviews with the patient and, in many cases, psychological testing. The files contained summaries of both interviews and testing, as well as the court-appointed psychiatrists' final evaluations. In addition, after the evaluation process, substantial amounts of information were added to patients' records over the course of commitment, including any further psychiatric evaluations, treatment summaries, behavioral observation reports, and reports of program participation at the Center.

The files were coded using a data schedule composed of three parts. The first part covered demographic information and the subject's educational, occupational, military, medical, psychiatric, institutional, and criminal histories, as well as data on drug and alcohol abuse, family, and development. Psychiatric, medical, and substance abuse histories of caretakers (biological and/or surrogate) were explored, as were family histories of neglect, abuse,

**Table 1**  
**Demographic Characteristics of the Sample**

		Combined (N = 201)	Resident Patients (N = 107)	Released Patients (N = 94)
Race	White	84.6%	81.3%	88.3%
	Nonwhite	15.4%	18.7%	11.7%
IQ	Mean	101.14	100.76	101.51
	SD	13.81	12.30	15.23
	Range	61-138	61-128	69-138
Education (grade)	Mean	9.15	9.40	8.90
	SD	1.99	1.90	2.10
	Range	3-16	6-16	3-13
Achieved skill level (0 = unskilled)	Mean	1.35	1.40	1.29
	SD	1.27	1.28	1.27
	Range	0-5	0-5	0-4
Juvenile penal record		41.9%	47.6%	35.5%
No. of juvenile penal offenses	Mean	2.32	2.28	2.36
	SD	1.96	1.88	2.10
	Range	1-12	1-12	1-12
Adult penal record		93%	94.4%	91.3%
No. of adult penal offenses	Mean	2.31	2.16	2.49
	SD	1.82	1.57	2.07
	Range	1-14	1-10	1-14
Adult penal time (years)	Mean	3.33	3.30	3.36
	SD	3.81	3.28	4.38
	Range	0-27	0-15	1-27
Marriage	Never	53.5%	57.0%	49.5%

and incest. The second part of the data schedule included a set of theoretically derived scales that were tested for internal consistency. Subjects were rated on various aspects of social competence, aggression, antisocial behavior, educational and occupational achievement, and offense characteristics. The third part of the data schedule was a symptom checklist used to code the presence, severity, and/or chronicity of various clinical and behavioral symptoms.

Two trained research assistants independently coded and rated each file and then met and reached a consensus regarding their ratings, if discrepancies existed. This double coding, although

very time consuming, was done to increase the accuracy of the coded information. The consensus codings served as the basis for all analyses. Because the consensus judgments were used in all subsequent analyses, the reliability estimates for the validating variables are the Spearman-Brown transformations of the Pearson correlations of the pre-consensus ratings.<sup>14</sup> These ranged from .63 to .97, with a mean of .87.

During the coding process an extensive case history abstract was created that contained the essential life history and offense data. These abstracts were used by a group of clinicians for subtyping rapists.

*Rapist classifications* Each ab-

stracted file was rated independently by two clinicians familiar with the population, using a three-step decision tree (Fig. 1). Discrepancies, when they occurred, were resolved through discussion of the case material and rereading of the abstracts. In the event that discrepancies could not be resolved, a third clinician made an independent rating. If this third judgment failed to promote a consensus, the case was omitted. In all other cases (95%), consensus was obtained. The reliability estimates are calculated as above. These were .73, .69, and .71 for the quality of aggression, meaning of sexuality, and degree of impulsivity, respectively.

**Data Analysis** The primary aim of this study was to assess the validity of the principal taxonomic distinctions, and our strategy involved determining how various childhood and adult factors related to the probability that: (a) an offender would be expressively aggressive versus instrumentally aggressive (Decision A in the subtyping of rapists); (b) if instrumentally aggressive, the probability of the offense reflecting compensatory versus exploitative aims, or, if expressively aggressive, the probability of the offense reflecting sadism versus simple rage (Decision B in the subtyping of rapists); (c) an offender would possess a more generally impulsive lifestyle (Decision C in the subtyping of rapists).

Additionally, an examination of subtyping ratings revealed that there were several disagreements involving sadism (i.e., there were discrepancies between Type 8 (sadistic) and Types 2, 4, and 6). Further exploration of this source of un-

reliability suggested that other offense aspects (e.g., actual degree of damage done to the victim) were influencing judgments. We therefore designed a model to assess the antecedents that uniquely increased the likelihood of a sadistic outcome when sadism was compared with each of the other three types.

The data analyses involved three steps. First, we delineated the models we wanted to test, specifying both predictor and outcome variables. Second, using principal component analysis (PCA), we reduced the predictor variables that we felt were theoretically relevant into a manageable number of cohesive, stable constructs. Third, we performed probabilistic outcome analyses using stepwise multiple and logistic regression, to determine how the childhood and adulthood variables related to different aspects of the subtyping decision.

Selection of predictor variables was based on the consensus of the extant clinical and empirical literature regarding the precursors of violence, aggression, and impulsivity, as well as on our ability to obtain reliable information on these variables from our clinical files. This was possible for a variety of variables including measures of peer relations, antisocial behavior, impulsive behavior, substance use, academic and vocational failure, aggressive behavior, and family chaos and pathology. These were rationally separated into two temporally defined sets: one for childhood and the other for adulthood, thereby allowing us to assess the life history courses leading to taxonomic outcome.

In the second stage, the PCA-derived components were entered into a series of regression analyses according to a three-step procedure.<sup>15</sup> First, all of the family and childhood components were used in a stepwise regression analysis to predict each of the adult components. Second, all of the adult components were used in a stepwise logistic regression analysis to predict each of the distal (taxonomic) variables. Third, the family and childhood components were added to the logistic regression in predicting each of the distal variables, while keeping the significant adult components in the model.

### Results

**Principal Component Analyses** All selected variables were first standardized, and then separate analyses were conducted with the childhood and adult variable sets. In each analysis, variables were excluded if they did not load on any factor above a cutoff level of .40. Additionally, variables were excluded if they loaded on more than one factor to approximately the same degree.

For the childhood variable set, factors with eigenvalues greater than one are presented in Table 2. These four factors, labelled *family pathology*, *juvenile impulsive/antisocial behavior*, *school problems*, and *destructiveness/victimization*, accounted for 51.3 percent of the variance in the variable set and had major loadings on the following variables:

**Family Pathology** This factor included nine variables assessing the presence of sexual deviation within the family, childhood physical abuse, child-

hood neglect, family instability, marital instability, drug abuse in each parent, and criminal history in each parent.

**Juvenile Impulsive/Antisocial Behavior** This factor comprised seven variables assessing the subject's behavior regarding assaults on peers, assaults on teachers, vandalism, management problems in both grammar and junior high school, youth service board involvement, and juvenile penal involvement.

**School Problems** This factor included four variables assessing symptoms of childhood learning disability, amount of peer interaction in the early adolescent years, number of grades repeated, and last grade level achieved.

**Destructiveness/Victimization** This factor comprised three variables assessing childhood arson, cruelty to animals, and sexual victimization of the subject as a child.

For the adult variables, a four-factor solution was obtained that accounted for 59 percent of the variance in the variable set (Table 3) and included the following factors:

**Alcohol Abuse** This factor included four assessments of the subject's use of alcohol: how problematic such use was for him over the course of his adult life, how problematic it was for him within one year of his offense(s), a rating of the frequency of the subject's drinking, and the coincidence of a subject's acting out behavior and his drinking.

**Social Competence** This factor comprised assessments of the subject's ability to live independently in the community, his achieved level of heterosexual relationships, and his achieved

**Table 2**  
**Final Item-Groups Entered into Linear Structural Analysis\***  
**Family/Childhood Pathology (N = 201)**

Item-Groups	Variables	Loadings	% of Variance	Eigenvalue	Cronbach's Alpha
Family Pathology	Family Instability†	.77	27.7	7.19	.84
	Child Neglect	.79			
	Child Physical Abuse	.51			
	Sexual Deviation in Family	.70			
	Parental Marriage Intact	-.52			
	Biological Mother Drug Abuse	.70			
	Biological Mother Criminal History	.55			
	Biological Father Drug Abuse	.58			
	Biological Father Criminal History	.67			
Juvenile Impulsive/ Antisocial Behavior	Assaults on Peers	.69	11.4	2.96	.91
	Assaults on Teachers	.76			
	Vandalism	.60			
	Problems in Grammar School‡	.74			
	Problems in Junior High School‡	.82			
	Youth Service Board	.68			
	Juvenile Penal Commitment	.70			
	Learning Disabilities§	.74			
School Problems	Number of Grades Repeated	.78	6.9	1.81	.68
	Last Grade Level Completed	-.66			
	Peer Interaction¶	-.47			
	Arson	.80			
Destructiveness/ Victimization	Cruelty to Animals	.77	5.3	1.37	.62
	Subject Sexually Abused	.45			

\* Derived from principal components analysis, varimax solution

† Four-point scale (3 = severely chaotic, 0 = secure and stable)

‡ Four-point scale (3 = severe discipline and/or attendance problems, 0 = no problems)

§ Combination of dichotomously-scored symptoms (1 = presence, 0 = absence)

|| Continuous

¶ Four-point scale (3 = socially active and peer oriented, 0 = totally withdrawn from peer contact)

All other variables are dichotomous (1 = presence, 0 = absence)

**Table 3**  
**Final Item-Groups Entered into Linear Structural Analysis\***  
**Adulthood Incompetence Pathology (N = 201)**

Item-Groups	Variables	Loadings	% of Variance	Eigenvalue	Cronbach's Alpha
Alcohol Abuse	Alcohol-Abuse, Lifetime†	.94	23.2	4.18	.95
	Alcohol Abuse, Recent	.94			
	Frequency of Drinking†	.92			
Social Competence	Coincidence of Acting Out and Drinking†	.90	17.0	3.05	.90
	Independence, Institutionalization‡	.85			
	Heterosexual Pair-Bonding: Highest Level Achieved§	.92			
	Heterosexual Pair-Bonding: At Time of Offense§	.90			
Adult Impulsive/ Antisocial Behavior	Impulsivity in Lifestyle	.71	9.9	1.79	.69
	Unsocialized General Aggression¶	.50			
	Number of Penal Commitments	.64			
	Ratio of Years Employed to Years Employable	– .63			
	Employment Stability#	– .64			
Psychiatric Disturbance	Educational Achievement**	– .45	8.9	1.61	.45
	Symptoms of Thought Disorder	.56			
	Symptoms of Mood Disorder	.68			
	Psychiatric Commitment††	.61			

\* Derived from principal components analysis, varimax solution

† Four-point scale (3 = alcoholism, 0 = no problems)

‡ Five-point scale (4 = subject has maintained himself independently for at least 2 years, 0 = subject has never maintained himself in the community independently)

§ Nine-point scale (8 = subject married with children, 0 = subject isolated and never part of a couple)

|| Combination of dichotomously scored items

¶ Seven-point scale (6 = occasional or frequent extreme aggression (e.g., mutilation, brutal murder), 0 = no evidence of aggression)

# Five-point scale (4 = steady & progressing to higher level, 0 = unemployed)

\*\* Five-point scale (4 = some post-secondary school, 0 = some elementary school)

†† Dichotomous

level of heterosexual relationships at the time of his offense.

**Adult Impulsive/Antisocial Behavior** This factor comprised six variables assessing lifestyle impulsivity, unsocialized aggression, number of adult penal incarcerations, degree of employment stability, percentage of employable time spent employed, and educational achievement.

**Psychiatric Disturbance** This factor included three variables assessing the presence of adult mood disorder, adult thought disorder, and history of institutionalization for psychiatric reasons.

Before entering these new variables into the logistic regressions, we transformed them into scales. First, the internal consistency of each dimension was assessed using Cronbach's coefficient alpha. The alphas for the childhood constructs were .84 (Family Pathology), .91 (Juvenile Impulsive/Antisocial Behavior), .68 (School Problems), and .62 (Destructiveness/Victimization). The alphas for the adult constructs were .95 (Alcohol Abuse), .90 (Social Competence), .69 (Adult Impulsive/Antisocial Behavior), and .45 (Psychiatric Disturbance).

Second, a score for each new construct was obtained by calculating the sums of the nonmissing individual variables comprising the factor. These scores were also standardized. Each subject then had four child scale scores and four adult scale scores.

**Regression Analyses** Three separate sets of distal variables were created to investigate the discriminating dimensions of the rapist taxonomy. The first model explored Decisions A (quality of

aggression) and B (meaning of sexual behavior) in the taxonomy. Decision A results in classification into an instrumental (1 through 4) or expressive (5 through 8) category. Decision B results in a classification into one of four groups: compensatory (1 + 2), exploitative (3 + 4), displaced anger (5 + 6), or sadistic (7 + 8) (Fig. 1).

The second model explored Decision C of the taxonomy. This decision involves an assessment of the offender's general impulsivity in history and lifestyle. It was examined over all types (1 + 3 + 5 + 7 versus 2 + 4 + 6 + 8) as well as among instrumentals (1 + 3 versus 2 + 4) and among expressives (5 + 7 versus 6 + 8).

The third model examined the precursors of a sadistic (7 or 8) outcome in relation to the three other Decision B subtypes (compensatory, exploitative, and displaced anger).

A series of regression analyses were run on the combined sample of rapists ( $n = 201$ ). First, a multiple stepwise regression analysis was run. Each of the four adult scales were entered as dependent variables with the four childhood scales entered as predictors. Next, three separate logistic regression analyses were run using each of the three sets of distal variables as outcome measures, with the eight childhood and adult scales entered as predictors.

As seen in each of Figures 2, 3, and 4, the multiple stepwise regression analysis resulted in Social Competence being predicted by Juvenile Impulsive/Antisocial Behavior ( $\beta = .27, p < .001$ ), whereas Psychiatric Disturbance was predicted by Destructiveness/Victimization.

## Taxonomic System for Rapists

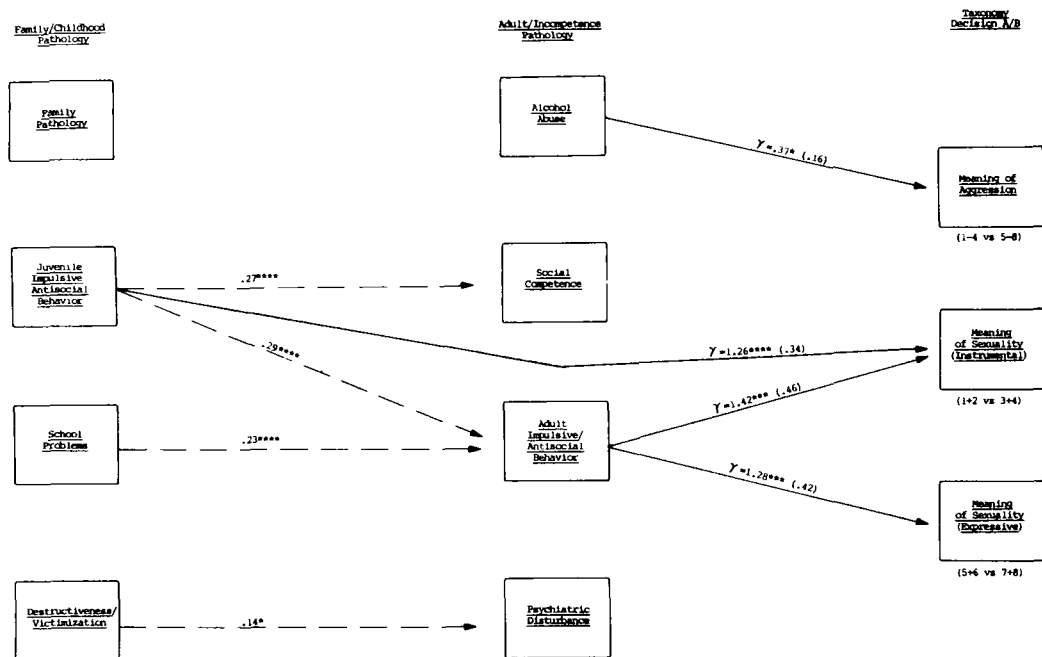


Figure 2. Linear structural analysis for rapist taxonomy: meaning of aggression/sexuality. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .005$ ; \*\*\*\* $p < .001$ . All betas derived from stepwise regression analyses. Logistic regression ( $\gamma$ ):  $\log P/(1 - P) = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2$ . ---, multiple regression; —, logistic regression; numbers in parentheses, standard error.

zation ( $\beta = .14$ ,  $p < .05$ ). In addition, Adult Impulsive/Antisocial Behavior was predicted by both Juvenile Impulsive/Antisocial Behavior ( $\beta = .29$ ,  $p < .001$ ) and School Problems ( $\beta = .23$ ,  $p < .001$ ). Notably, Family Pathology did not predict any adult outcome.

**Model I: Quality of Aggression—Meaning of Sexual Behavior** As presented in Figure 2, presence of Alcohol Abuse increased the probability of an expressive aggression outcome (1 through 4 versus 5 through 8,  $\beta = .37$ ). This is the only variable to predict an expressive aggression outcome, and it is the only path involving Alcohol Abuse.

Within the instrumental group, manifestation of Adult Impulsive/Antisocial Behavior increased the probability of being an exploitative rapist (1 + 2 ver-

sus 3 + 4,  $\beta = 1.42$ ). Within the expressive group, manifestation of Adult Impulsive/Antisocial Behavior increased the probability of being a sadistic rapist (5 + 6 versus 7 + 8,  $\beta = 1.28$ ).

**Model II: Lifestyle Impulsivity** As shown in Figure 3, both Juvenile Impulsive/Antisocial Behavior and Adult Impulsive/Antisocial Behavior were involved in the prediction of lifestyle impulsivity as determined in Decision C of the taxonomy. For the entire sample, presence of Juvenile Impulsive/Antisocial Behavior and Adult Impulsive/Antisocial Behavior both increased the probability of high lifestyle impulsivity ( $\beta = 1.97$  and  $1.53$ , respectively). These same relations held within the instrumental group ( $\beta = 2.94$  and  $1.94$ , re-

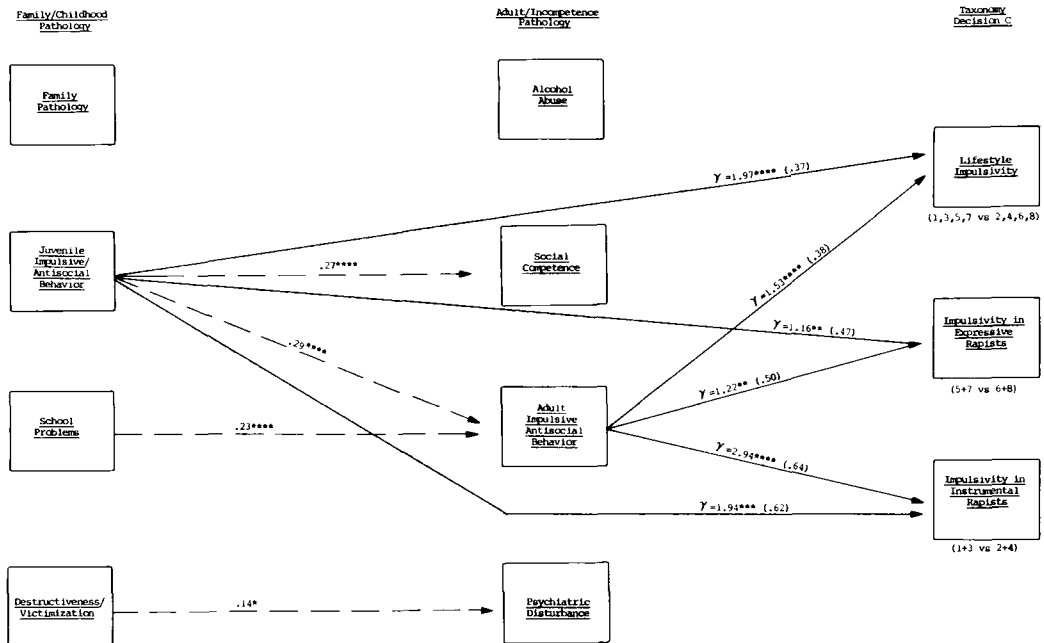


Figure 3. Linear structural analysis for rapist taxonomy: lifestyle impulsivity. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .005$ ; \*\*\*\* $p < .001$ . All betas derived from stepwise regression analyses. Logistic regression ( $\gamma$ ):  $\log P/(1 - P) = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2$ . - - -, multiple regression; —, logistic regression; numbers in parentheses, standard error.

spectively) and the expressive group ( $\beta = 1.16$  and  $1.22$ , respectively).

**Model III: Sadism** As seen in Figure 4, Adult Impulsive/Antisocial Behavior predicted a sadistic outcome when the compensatory or displaced anger types were compared with the sadists ( $1 + 2$  versus  $7 + 8$ ,  $\beta = 1.39$ ;  $5 + 6$  versus  $7 + 8$ ,  $\beta = 1.28$ ). Additionally, two paths predicted a sadistic outcome when the exploitatives were compared with the sadists. One led directly from Juvenile Impulsive/Antisocial Behavior and indicated that a higher degree of such behavior decreased the probability of a sadistic outcome ( $3 + 4$  versus  $7 + 8$ ,  $\beta = -.78$ ). The other path led from Destructiveness/Victimization in childhood through Psychiatric Disturb-

ance in adulthood, with a sadistic outcome more probable with a higher degree of past Destructiveness/Victimization and Psychiatric Disturbance ( $3 + 4$  versus  $7 + 8$ ,  $\beta = .80$ ).

## Discussion

The logistic regression analyses yielded some positive findings, although less typological variance was explained than we had anticipated. Different developmental factors did increase the likelihood of being either instrumentally or expressively aggressive and of being either sadistic or nonsadistic. Further, within the instrumental group it was possible to predict the likelihood of being either a compensatory or exploitative type, and within the ex-

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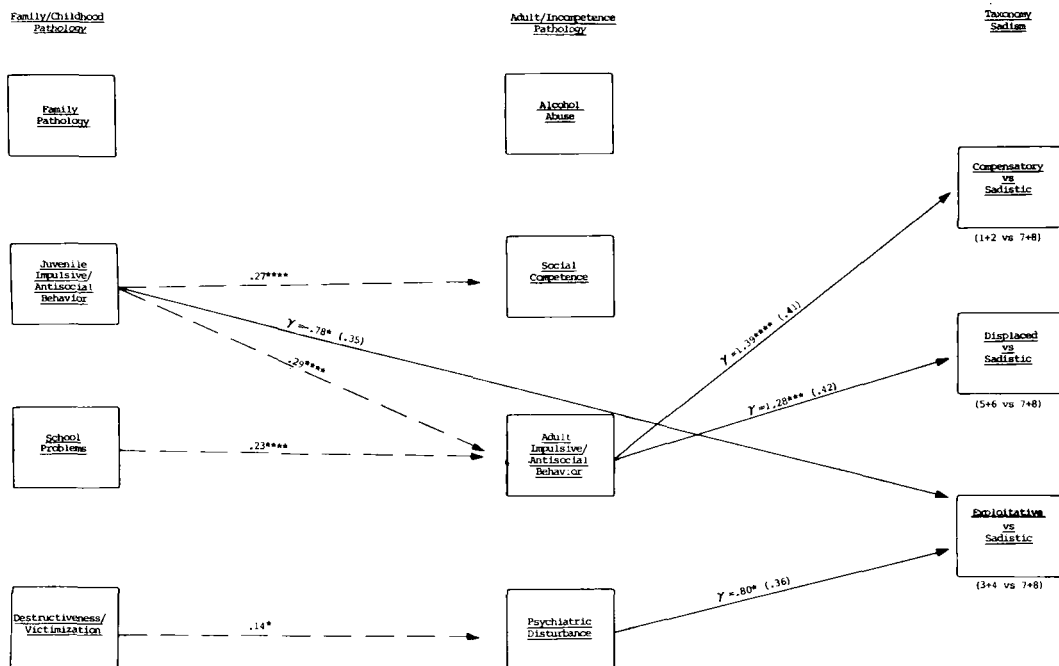


Figure 4. Linear structural analysis for rapist taxonomy: sexualized aggression. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .005$ ; \*\*\*\* $p < .001$ . All betas derived from stepwise regression analyses. Logistic regression ( $\gamma$ ):  $\log P/(1 - P) = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2$ . ---, multiple regression; —, logistic regression; numbers in parentheses, standard error.

pressively aggressive group it was possible to predict the likelihood of being either a displaced anger or sadistic type. Overall, then, some validation for making these typological distinctions was evident. The results, however, especially considered in conjunction with some of our other studies,<sup>7,10,11,16,17\*</sup> do make clear the necessity of restructuring both the subtypes of rapists and the decision-making procedure used to assign offenders to types.

The only predictor correlated with the meaning of aggression (instrumental

versus expressive aggression, Decision A in the model) was Alcohol Abuse, which increased the probability of being an expressively aggressive type. This might in large part reflect the role that Alcohol Abuse may play in increasing the actual amount of violence perpetrated, which in turn is frequently interpreted as reflecting the offender's intent (e.g., to express rage or to be sexually gratified by aggression as opposed to gaining compliance only). Previous results\* demonstrated that the level of aggression manifested in the offense *can* be as high for some instrumentally aggressive offenders as for the expressively aggressive offenders, yet these groups are still distinguishable

\* Rosenberg R, Knight RA: Determining male sexual offender subtypes using cluster analysis. Manuscript submitted for publication, 1988

from one another, because the typical amount of aggression manifested in the offense is higher for the displaced anger and sadistic rapists than for the compensatory and exploitative rapists.<sup>11</sup>

The lack of other paths distinguishing the instrumental and expressive aggression groups may also reflect the difficulty in operationalizing, and thus reliably discriminating, the two concepts. They are qualitatively different kinds of aggression with respect to underlying motivation. Instrumental aggression is meant only to achieve a further end (e.g., victim compliance), whereas expressive aggression is perpetrated as an end in itself. Differentiating these often requires a difficult clinical judgment, with the amount of injury inflicted at times providing little information about the underlying intent. For example, an instrumentally aggressive offender may escalate his own aggression in response to a physically resistant victim. Thus, in some instances of extreme violence it can be difficult to discern whether the intent is primarily to gain compliance or to brutalize. Conversely, it can be difficult to evaluate the quality of aggression in instances in which physical violence is minimal but verbal degradation and defilement occur.

Consequently, in the current results it is difficult to determine whether the quality of aggression or the amount of violence has been predicted. Analyses of interrater disagreements in subtype assignment<sup>7</sup> have confirmed the difficulty in making this distinction. These results strongly suggest the need either to refine the operationalization of instrumental and expressive aggression

so they can be more reliably discriminated or to focus on a less inferential assessment of aggression, such as the actual amount of injury inflicted. Analyses of a related population, child molesters,<sup>†</sup> suggest, however, that abandoning the assessment of intent might mean sacrificing an important explanatory construct.

Within the two categories of aggression as presently defined, the two subtypes embedded in each category were distinguishable from one another (the compensatory from the exploitative type within the instrumental group and the displaced anger from the sadistic type within the expressive group). In both cases, Adult Impulsive Antisocial Behavior was the predictor, with a higher degree leading to a more exploitative or sadistic outcome. These results are consistent both with another validation study<sup>11</sup> and with some earlier speculations about these types. Cohen *et al.*<sup>3</sup> hypothesized that the exploitative and sadistic types were more generally antisocial.

It is noteworthy that the two more highly antisocial groups differed from one another in important ways. Separate developmental paths led to each. As seen in Figure 4, which shows the paths predicting the likelihood of a sadistic outcome, higher Adult Impulsive/Antisocial Behavior not only led to a sadistic outcome in the comparison of the displaced anger to the sadistic type, but also in the comparison of the com-

† Prentky RA, Knight RA, Rosenberg R, et al: A path analytic approach to the validation of a taxonomic system for classifying child molesters. Manuscript submitted for publication, 1987

pensatory to the sadistic type. In the exploitative-sadistic type comparison, however, Adult Impulsive/Antisocial Behavior did not play a role. Instead, Juvenile Impulsive/Antisocial Behavior was negatively correlated with a sadistic outcome and positively correlated with an exploitative outcome (see also Fig. 3). The factors that *increased* the likelihood of a sadistic outcome were Destructiveness/Victimization and Psychiatric Disturbance. Thus, although both the exploitative and sadistic groups may appear similar in their adult manifestations of impulsive, antisocial behavior, a distinct developmental course emerged for each group. The exploitative offenders appear to be more characterologically impulsive and antisocial, with histories of such behavior beginning in their juvenile years. The sadistic offenders appear to be more psychiatrically disturbed, with a higher incidence of sexual victimization in childhood and manifestations of psychopathology in adulthood.

In the revised MTC model each of the four basic types (compensatory, exploitative, displaced anger, and sadistic) have two possible variants, one of which evidences a generally impulsive, antisocial lifestyle and another of which does not show such a lifestyle.<sup>1,7</sup> As we indicated earlier, the lifestyle impulsivity discrimination was introduced primarily to reduce interrater discrepancies in assigning offenders to either compensatory or exploitative types in the original scheme.<sup>2,3</sup> In the original system the prototypic displaced anger and compensatory types were described as neither impulsive nor anti-

social. The sadistic types were hypothesized to be more impulsive, and the exploitative types were described as prototypically and characterologically impulsive and antisocial. Our application of the revised system has indicated that, contrary to these original hypotheses, there are impulsive and non-impulsive variants of all but the exploitative types.<sup>10,11</sup> The results of the present study indicate that, although there are substantial numbers of antisocial compensatory and displaced anger types, the degree of general antisocial behavior is still important in discriminating these types from exploitative and sadistic types. Moreover, the finding that different developmental life courses lead to the impulse-ridden adaptations of the exploitative and sadistic types underscores the contribution that a longitudinal perspective can have in defining and differentiating types of offenders.

In this investigation of the validity of the revised typology, the critical typological discriminations were considered endogenous (effect) variables<sup>18</sup> and theoretically important dimensions were considered exogenous (causal). Some enlightening results emerged from these analyses, but, as noted above, there were fewer than anticipated. Two factors might have masked other relations. First, the constructs that were used as predictors were derived through principal component analysis and were not optimal measures. The degree of their multidimensionality (cf. the alpha coefficients of the derived scales in Tables 2 and 3) may have resulted in constructs that

were too imprecise and global to capture more specific developmental antecedents. This is suggested even in scales that attained reasonable alphas. For example, the Family Pathology scale, which had an alpha of .84, comprised variables tapping multiple domains—mother's and father's problems, child physical abuse and neglect, just to name a few (Table 2). In this case, it would be possible for most offenders to have a similar degree of family disturbance with differences in the nature of that disturbance masked by similar scores on a multidimensional construct.

Second, just as the multidimensionality of the exogenous variables could have contributed to fewer positive results, so could the impurity of the endogenous dimensions. These dimensions (meaning of aggression, meaning of sexual behavior, degree of lifestyle impulsivity) were derived in a completely different fashion, i.e., they were rationally conceptualized and operationalized. Difficulties in operationalizing them with sufficient clarity has led to problems in applying them.<sup>7</sup> For example, although the judgment of impulsive lifestyle attained minimal reliability, comparisons to other indices of antisocial lifestyle\* indicate that the criteria for assigning an offender to the impulsive category are too loose and lead to the overdiagnosis of impulsivity. In this case, better operationalization and scoring criteria should improve reliability and discriminant power. Other target discriminations are even less well defined and have relied on less behaviorally specified boundaries. This is par-

ticularly true for inferred intents or motivations such as sadism. These definitional problems prompted us to begin devising constructs related to aggression and sexual arousal that are amenable to less equivocal interpretation.<sup>16</sup>

In summary, this study confirms that the quality of aggression and meaning of sexual behavior in the offense are potentially valid and meaningful typological dimensions, but that they need better operationalization and definition. When synthesized with our other validation studies,<sup>10,11,17\*</sup> the current results confirm the need to consider other variables in defining types (e.g., social competence) and consequently to refine and restructure the subtyping procedure. We have seen the benefits accrued from this process in the revision of a taxonomy for child molesters.<sup>19</sup> Results of the validation studies on the rapist taxonomy have confirmed some notions and disconfirmed others. Most importantly, they have provided the direction for revision and improvement of the current classification system for rapists.

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