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Differentiating Sex Offences: A Behaviorally Based Thematic Classification of Stranger Rapes

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It is hypothesized that stranger rape victim statements will reveal a scale of violation experienced by the victim, ranging from personal violation, through to physical violation, and finally, at the most extreme level, sexual violation. It is also hypothesized that offences can be differentiated in terms of one of four themes: hostile, controlling, stealing, or involving. To test these hypotheses, crime scene data from 112 rapes were analyzed by the multi-dimensional scaling procedure Smallest Space Analysis. The results provide empirical support for a composite model of rape consisting of four behavioral themes as different expressions of various intensities of violation. The results also suggest that stranger rapes may be less about power and control than about hostility and pseudo-intimacy. The proposed model has implications for the classification of rape, the investigation of sexual crimes, and the treatment of victims. Copyright © 2003 John Wiley & Sons, Ltd.

CLASSIFYING RAPE

In rape, the victim experiences a range of violations from the highly intrusive penetrative sexual violation to personal humiliation and physical assault. The significance of the actual penetrative act and subsequent feelings of having been totally invaded and the impact of this violation on victims are well documented (Cohen & Roth, 1987; Bard & Ellison, 1974; De Clerq, 1995; Foa and Riggs, 1995; Kilpatrick et al., 1985). Yet these varying levels of violation are not considered explicitly in any dominant typology of rape.

For example, Cohen, Seghorn, and Calamas (1969) and later Cohen, Garfalo, Boucher, and Seghorn (1971) emphasized *sex* and *aggression* as motivating factors that should be used to categorize rape. Groth, Burgess, and Holmstrom (1977) also argued that rape relates to sexual behavior in the service of non-sexual needs,

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emphasizing *power* and *anger* as the primary motivating distinctions. The emphasis on motivation, which must be inferred from the offender or other sources not observed directly, also raises difficulties in determining the reliability and validity of the classifications schemes (Hazelwood, Reboussin, & Warren, 1989; Knight, Warren, Reboussin, & Soley, 1998; Prentky, Cohen, & Seghorn, 1985).

The Massachusetts Treatment Center (MTC) rape classification system, now in its third version (Knight, 1999), sought to address the problems of reliability and validity by working with full accounts of the offenders held on file within MTC supported by interviews and other assessments of these individuals. After two decades of research, the result is a classification scheme that allows rapists to be assigned to one of five rape types based on primary motivations of opportunism, pervasive anger, sadistic sexuality, non-sadistic sexuality, and vindictiveness. In addition, offenders falling into each of these five types can be differentiated further to form nine sub-types based upon their respective level of social competence (Knight, 1999).

Unlike previous classification schemes a concentrated effort has been put into validating the MTC system (see, e.g., Knight, Prentky, & Cerce, 1994; Prentky, Knight, Lee, & Cerce, 1995; Rosenberg & Knight, 1988; Rosenberg, Knight, Prentky, & Lee, 1988). Based upon the range of studies now completed, substantial evidence exists about the concurrent validity, cross-temporal stability, and predictive potency of this classification system (Knight, 1999).

BEHAVIORALLY BASED CLASSIFICATIONS OF RAPE

The primary value of the MTC framework is to identify the functions that rape has for the offender, thus assisting in devising and providing treatment programs for offenders. There are, however, limitations in this focus on the psychological characteristics of the offender underplaying the details of the assault itself. This weakens their utility in the legal process and in contributing to investigations, as well as their applicability to helping victims of rape. Even the *Crime classification manual* (Douglas, Burgess, Burgess, & Ressler, 1992), which was meant to provide a classification framework to assist the law enforcement community with the investigation of serious crime, draws on the motivationally based work of Groth and Birnbaum (1979), Lanning (1987), Prentky *et al.* (1985), and Hazelwood (1987). This makes it difficult to see how such a system can be directly applied to police investigations (Canter & Heritage, 1990), although a number of recent studies are attempting to resolve some of these issues (see, e.g., Knight *et al.*, 1998).

In contrast to these descriptive, motivationally based classification schemes derived, in the main, from summaries of clinical or investigative experience, a growing number of studies are using multivariate statistical procedures to examine empirically the behaviors that occur in rape. These studies focus on the variations that distinguish between offences (see, e.g., Canter, 1994; Canter & Heritage, 1990) rather than differences between offenders and their "motivations". They focus on the behaviors that are reported directly by the victim, leading to behavioral classification systems that complement the motivational systems such as that from the MTC program.

LEVELS OF VIOLATION IN RAPE

Canter and Heritage (1990) were some of the first researchers to examine the feasibility of creating behaviorally-based classification systems of rape. They used Smallest Space Analysis (SSA) of the actions that occurred in rapes to develop a multivariate model of rape. SSA is a procedure first formulated as an alternative to Factor Analysis that would not require any assumptions about underlying dimensions being linear or orthogonal (Guttman, 1954). It is one of that family of procedures known as Multi-Dimensional Scaling (MDS), which represent associations between variables as distance in an abstract space (Schiffman, Reynolds, & Young, 1981).

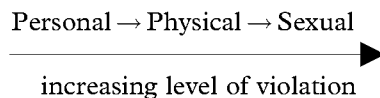
MDS proceeds by calculating the association/correlation between every variable and every other variable. An iterative algorithm is then carried out to maximize the closeness of fit between distances in a space, of a dimensionality determined by the researcher, and the associations between the variables. The degree of fit between the original association values and the distances in the space is measured by a "stress" value or coefficient of alienation (Schiffman et al., 1981). SSA differs from most MDS procedures because it maximizes the fit between the rank order of the associations between variables and the rank order of the distances in the MDS space (Borg & Shye, 1995). This emphasis on the comparison of rankings rather than absolute values leads to SSA being recognized as a "non-metric" procedure. It facilitates the interpretation of the resulting MDS space in terms of regions rather than dimensions, because it is the relative relationships between variables that the analysis emphasizes.

The output of an SSA is thus a representation of the variables, in the present case actions reported in rape, as points in a multidimensional space. This representation is examined on the premise that any model it reveals should encapsulate and explicate variations in the offender's mode of interaction with the victim as expressed through reported offence actions. In other words, the relative frequency of co-occurrence of rapists' actions is reflected in the relative distance between the points, such that the closer any two points representing the actions the more likely are they to co-occur in an assault. This geometrical model of co-occurrences therefore provides a framework for considering similarities and differences between the actions that characterize the sexual assaults in the sample.

Canter and Heritage (1990) examined the relationship of the frequency of occurrence of each variable to the overall structural interrelationships between those variables. They made the discovery that the hierarchy of frequencies mapped directly onto the pattern of co-occurrences of the variables. High frequency variables were found at the center of the geometrical structure, where those variables with the highest average inter-correlations with all other variables were also found. Lower frequencies radiated out from this focal point, indicating that the frequency of the variables was a good indication of their central role in rape. The more rare the behaviors reported in rape, the more likely they were to contribute to distinct varieties of sexual assault. The variations in the frequencies were therefore shown to form what is known as a "modular facet" (Borg & Shye, 1995). That is a facet that modifies or modulates some other facet(s). In the Canter and Heritage (1990) study the frequency of occurrence modified the differentiation between types of assault; the less frequent the action the more it differentiated between assaults.

As would be expected, vaginal penetration from the front was found to be at the core of rape, occurring in 83 per cent of cases in this sample of sexual assaults. Less obvious, but in keeping with the model of their being those aspects that distinguish between offences, are the rare variables found towards the edges of the geometrical model. These variables were found to be personally violating aspects of the offence and included the offender implying that he knows the victim, the offender complimenting the victim, the offender forcing the victim to verbally participate in the attack, and the offender apologizing to the victim. Between these two extremes was a mixture of physically and sexually violent actions including anal penetration, tearing the victim's clothing, gagging the victim, binding the victim, and blindfolding the victim.

While a number of variables in the Canter–Heritage (1990) SSA do not conform to this modular facet, the general pattern of frequencies suggests that rape is essentially a crime of violation, which can occur at distinctly personal, physical, and sexual levels. As such, a scale of violation in rape may be summarized as follows:



In a further development of this model, Canter (1994) analyzed 105 cases of rape. As in previous studies, Canter (1994) showed that a pattern of frequencies exists amongst the variables that correspond, for the most part, to the proposed scale of violation. In general, most of the personally violating behaviors were low in frequency and found around the edges of the SSA configuration; sexually violating behaviors were higher frequency and formed the core. Physically violating behaviors were in between.

Although the results generated in these two studies are broadly similar, there are some differences between the patterns of variables. This is not surprising considering that the two studies draw on different samples and analyze slightly different sets of variables. Some of the differences between the two plots can be understood by considering the fact that the location of rare variables is very sensitive to the particular incidents in which those variables occur. The smaller the sample, the higher the possibility that some peculiarities of a particular situation give rise to the location of that variable in the configuration. The more readily interpretable structure in Canter (1994) does accord with considerations of the particular sample used in that study. The larger sample, and the clarification of the coding framework from the initial Canter–Heritage study, leads to that later analysis being a somewhat more valid representation of the patterns of actions in rape.

VARIETIES OF VIOLATION IN RAPE

As well as differences in levels (or degrees) of violation in rape there are likely to exist qualitative differences (or variations) of violation. Canter (1994) discusses these variations of violation in terms of the role the victim might play for the offender during the attack. From his analysis of rape behavior, he defined three general roles: the victim as person, the victim as object, and the victim as vehicle.

The victim as person region involves behaviors suggesting an offender who sees his victim as a significant individual. In this case, the offender attempts to develop a

pseudo-intimate relationship with the victim: he asks questions, implies knowing the victim, compliments the victim, and forces the victim to make sexual comments. A different picture emerges when the victim is treated as an object. The offender displaying these behaviors reveals no concern for the feelings of his victim: he steals from the victim, tears the victim's clothing, gags the victim, blindfolds the victim, and controls the victim with a weapon. The victim as vehicle indicates the victim is a representation or surrogate for some generalized other rather than being targeted as a specific person or treated as an object. This shows the offender using the victims as a vehicle for venting his anger and frustration: the offender demeans the victim, uses excessive violence, anally penetrates the victim, and is verbally violent towards the victim.

Whilst drawing heavily on the modes of interaction proposed by Canter (1994), there is a need for a framework that focuses on the actions offenders exhibit rather than proposing labels reflecting the variety of roles a victim might assume for an offender. This avoids making inferences from behaviors about what the victim might represent to the offender. Instead, the only inference made is based on an assessment of the nature of the observable behavior. The four modes of offender–victim interaction that we hypothesize will be evident in the present study—hostility, control, theft, and involvement—are derivatives of those originally proposed by Canter and Heritage (1990) and elaborations of those proposed by Canter (1994), with an emphasis on the actions that take place. Evidence for these four behavioral themes can be drawn from the diverse literature on rape.

Hostility

The general theme of hostility occurs in a variety of forms throughout the literature on rape. Cohen et al. (1971) suggest that for some offenders rape is primarily a destructive act rather than the expression of a sexual wish, while Groth and Birnbaum (1979) and Douglas et al. (1992) cite anger as a central motivation inferred by certain offence behaviors. In a previous study by Canter and Heritage (1990), a region in their SSA could be interpreted as reflecting an overtly aggressive offence style. Behaviors typical of this offending style include verbal violence, insulting or demeaning language, tearing the victim's clothing and gratuitous violence. Similar behaviors are found in Canter's (1994) victim as vehicle theme.

Within the general criminological literature, a theme of aggression or violence is noted as one distinct type or set of behaviors in many forms of crime. For example, Feshbach (1964) and Bartol (1986) propose that it may be possible to differentiate homicides in terms of whether they are predominantly expressive (aggression in order to harm) or instrumental (aggression in order to gain some ulterior goal such as money). Hostility is used in this study because it describes both the physical aggression and violence represented by the behaviors within this theme as well as attempts made by the offender to humiliate and demean the victim.

Control

The behavioral theme of control also has some origins in the literature. Behaviors characteristic of this offence style are referred to by Groth and Birnbaum (1979) and

Douglas *et al.* (1992) as expressions of a power motivation. They propose that the offender regards the victim as an inanimate object that must be trussed and coerced, whom the offender will neither attempt to demean nor cajole. The offender has no empathy for the victim's reactions and experiences no remorse for his crime. This is similar to Canter's (1994) victim as object theme. However, the term control is used here because it describes behaviors that are meant to demobilize the victim.

Theft

The set of criminal activities that involve stealing from the victim have often been noted in earlier studies of rape (e.g. Canter, 1994). Often, these behaviors have been considered as part of the control theme. Whilst there is some logic to that, it might be expected that this object oriented focus of offending may be distinguishable from the more general controlling factors. These are clearly aspects of an offender's style that have parallels with the instrumental classification of offences as suggested by Bartol (1986). The offender is using the opportunities presented by the crime for some future instrumental goal, not just for the immediate gratification of the rape. So, although its relationships to control are recognized, theft is proposed as a distinguishable theme in the present study.

Involvement

This behavioral theme was first defined by Canter and Heritage (1990) as intimacy, emphasizing the fact that for some offenders the desire for social contact is a primary motivation for rape (Marshall, 1989). In this case, the victim is treated as a reactive individual rather than a sexual object. Behaviors that, in this instance, reflect the offender's attempt at some involvement with the victim would include verbal interactions, inquisitiveness, revealing information about themselves to the victim, complimenting the victim, kissing the victim, and, in some cases, apologizing for the attack. Similar behaviors are found in Canter's (1994) "victim as person" theme. The term involvement is preferred over intimacy, or even pseudo-intimacy, as few victims would consider intimacy as having any place in describing rape.

A COMPOSITE MODEL OF STRANGER RAPE

In taking account of the victim's perspective, the behavioral structure revealed in previous multivariate studies can be seen as comprised of levels of violation. In facet theory terms, this structure is referred to as a modular facet, defined by Levy (1985) as a simply (or partly) ordered facet made up of concentric bands around a common origin. In relation to rape, the hypothesis arises of an ordered modular facet comprised of three levels of violation—personal, physical, and sexual. As the review of previous studies also shows in addition to these levels of violation there are likely to exist variations of violation in rape. We hypothesized that these variations of violation would indicate four behavioral themes—hostility, control, theft, and involvement.

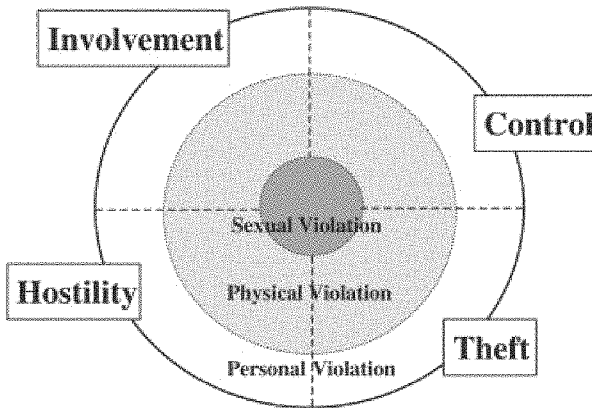


Figure 1. Schematic diagram showing the proposed model of rape consisting of the modular facet of violation (personal, physical, and sexual) and the four modes of interaction (hostility, control, theft, and involvement).

A combination of the proposed modular facet with a common order of increasing violation and the four modes of offender–victim interaction results in a *radex*—a circular structure made up of several concentric circles, which can accommodate varying degrees of a linear characteristic (Shye, Elizur, & Hoffman, 1994). This radex structure is summarized in Figure 1. The darker shaded central region represents the core of rape as sexual violation, the next contour represents behaviors that constitute physical violation, and the outer region represents behaviors that are associated with the personal violation of the victim. The four modes of interaction are indicated as different expressions of violation in a polar sequence around the central core behaviors.

The general hypothesis that can be drawn from this model is that rape is an act of violation that can be defined both in terms of levels—personal → physical → sexual—and varieties—hostility, control, theft and involvement. In terms of the resultant SSA plot, two specific hypotheses can be drawn. (i) The frequency pattern of actions in assaults will reveal a modular facet with the higher frequency focal aspects of assault at the center and the remaining actions radiating out from this focal point towards the edges of the plot. This modular facet will have a common order of increasing violation with increasing frequency of behaviors. (ii) Examination of the behaviors as they occur in actual rapes will reveal that subsets of conceptually related items will consistently occur together, indicating a structure that reflects the variety of modes of interpersonal interactions that underlie those offences.

METHOD

Sample

To test the proposed model, a set of rape statements made by victims was obtained. These consisted of the actual verbatim transcripts prepared by police officers at the dictation of victims. These transcripts are prepared by police officers who follow

guidance on obtaining as complete a statement as possible. They are legal documents presented in court. All transcripts were for cases in which a conviction had been obtained and for which it was known that it was a unique offender who had not committed any other offence in the sample.

In total, victim statements from 112 offences were made available by a number of British police forces in response to a request for details of rapes against victims unknown to the offender at the time of the offence. The data consisted of behavioral information on the first detected offence for serial offenders as well as offences by one-off offenders. Therefore, the empirical structure that is revealed by the analysis is not biased by undue weighting being given to frequent offenders who may be displaying a particular pattern of behavior in each of their offences, as may have been the case in previous research.

Although there are significant problems associated with using victim statements for this research, it is important to point out that every source of crime data will be biased in a variety of known and unknown ways. Victim statements are only representative of rapes that have been reported to the police, and within victim statements it is likely that victims emphasize particular aspects of the crime over others to emphasize lack of consent and the traumatic nature of the assault. Unlike some of the other sources of crime data, however, victim statements are a valuable source of information not only because they provide information from the victim's perspective but also because they are collected under conditions where the testimony could be challenged in court. As recently pointed out by Bennell, Alison, Stein, Alison, and Canter (2001), under such circumstances there will be "... pressure on the relevant investigating officer to record the information reliably and in sufficient detail for the offence to undergo legal scrutiny" (p. 154). Nevertheless, due to the biases inherent in the use of victim statements, the results from this study should be viewed with an appropriate level of caution.

Twenty-seven variables relating directly to the behavior of the offender at the crime were identified through content analysis of victim statements and were coded as 1s (indicating their presence) or 0s (indicating their absence). This use of dichotomies had been found by Canter and Heritage (1990) to produce the most reliable content variables. Trained researchers carried out the content analysis. The content categories were initially derived from the published literature on rape and from detailed scrutiny of the statements. Through discussion a detailed content dictionary was developed that was then applied to the sample. As reported by Alison and Stein (2001), this content dictionary had a high level of inter-rater reliability with average levels of disagreement in the 3–4% range. The 27 dichotomous variables coded across the 112 offences provided the data matrix upon which the subsequent analysis was conducted. The Appendix provides a full list of variable descriptions.

Hypotheses

Out of the 27 crime scene actions coded for in the present study 25 were expected to form particular regions. Previous research by Canter and Heritage (1990), and Canter (1994), suggests that the variables vaginal penetration and surprise attack will form a core region in the SSA, indicating that they are central to the act of rape and therefore not able to be attributed to any particular behavioral theme. The

Table 1. Twenty-five crime scene actions in 112 rapes listed by hypothesized level and variation of violation

Variations of violation	Levels of violation		
	Personal violation	Physical violation	Sexual violation
Hostility	Forces victim sexual comment	Demeans victim Multiple violence Single violence Tears clothing Verbal violence	Anal penetration Fellatio Forces victim participation
Control	Implies knowing victim	Binds victim Blindfolds victim Wears disguise Gags victim Threatens not to report Weapon use	
Theft	Steals identifiable Steals personal Steals unidentifiable	Demands goods	
Involvement	Compliments victim Implies knowing victim	Identifies victim	Cunnilingus Kisses victim Offender sexual comment

remaining 25 actions were expected to fall in the hypothesized regions as displayed in Table 1.

RESULTS

Analysis of Crime Scene Actions

In order to test these hypotheses, an SSA was carried out on an association matrix of Jaccard coefficients using SSA-I (Lingoes, 1973). Jaccard's coefficient is a measure of association that does not take account of joint non-occurrences (Jaccard, 1908). As argued in previous research, this is the most appropriate measure of association to use for the present analysis given the unverifiable nature of police data and the possibility that variables were not recorded when they were in fact present (Bennell et al., 2001; Canter, Hughes, & Kirby, 1998).

The two-dimensional SSA solution (Figures 2 and 3) has a Guttman-Lingoes coefficient of alienation of 0.24 in 37 iterations, indicating a reasonable degree of fit between the SSA plot and the original association matrix. In both figures, each point is a variable describing an offence behavior. The closer any two points are to one another, the more likely it is that the actions they represent co-occur across offences.

Levels of Violation

As indicated in Figure 2, it is possible to draw contours on the SSA that represent general frequency patterns. This pattern ranges from high frequency actions in the center of the plot to lower frequency actions that radiate out towards the edges of the

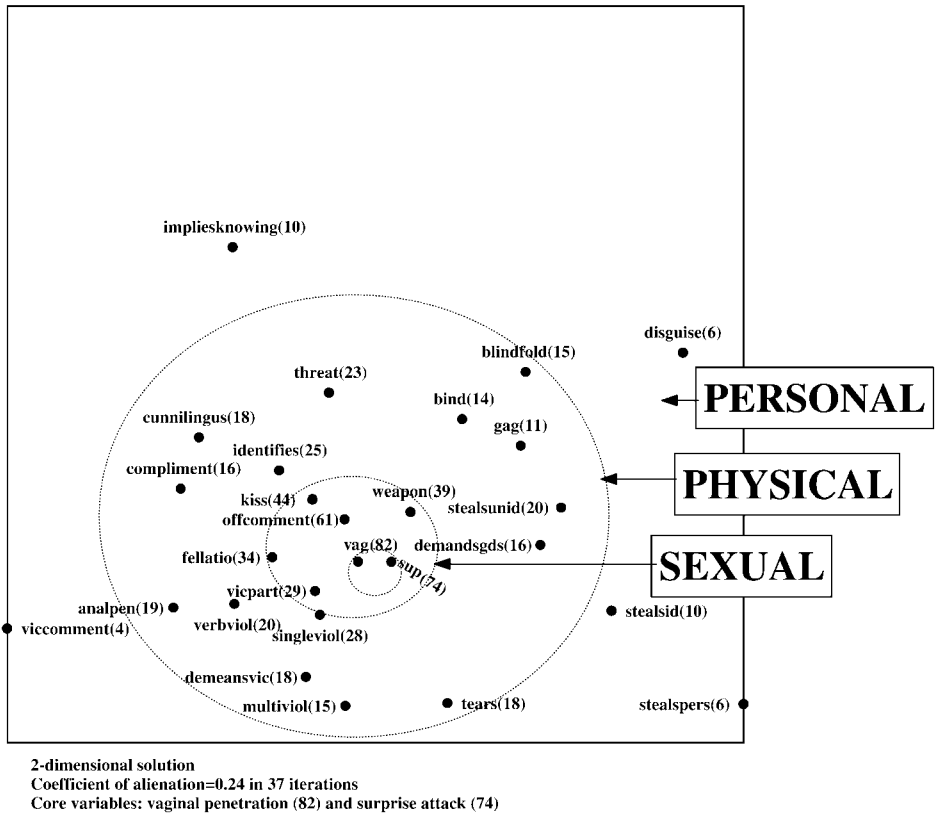


Figure 2. An SSA of 27 crime scene actions in 112 rapes indicating the degrees of violation. Variable labels are brief summaries of content analysis categories. Values in brackets are percentage frequencies.

plot. As found by Canter and Heritage (1990), and Canter (1994), the frequencies serve as a heuristic summary of offence behavior, showing that those behaviors further out from the core are the most distinct, giving any particular offence its specific characteristics while those at the center are conceptually central to rape. It is worth emphasizing that, although such a modular facet relating to frequencies of variables has been found in a number of published studies (Canter & Fritzon, 1998; Salfati & Canter, 1999), there is no inevitable relationship between frequencies and the configuration, which is based upon correlations. Indeed, there are studies in which no clear modular facet of frequencies can be demonstrated.

An examination of the behaviors within these general frequency contours provides some evidence for the modular facet of violation. The variables vaginal penetration (82%) and surprise attack (74%) were found to form a core region in the SSA plot, confirming our hypothesis that these two offence actions are the defining features of stranger rape. In addition, a high frequency band (>30%) could be identified that generally consists of sexually violating behaviors, a medium frequency band (11–30%) could be identified that consists of physically violating behaviors, and a lower frequency band ($\leq 10\%$) could be identified that consists of personally violating behaviors.

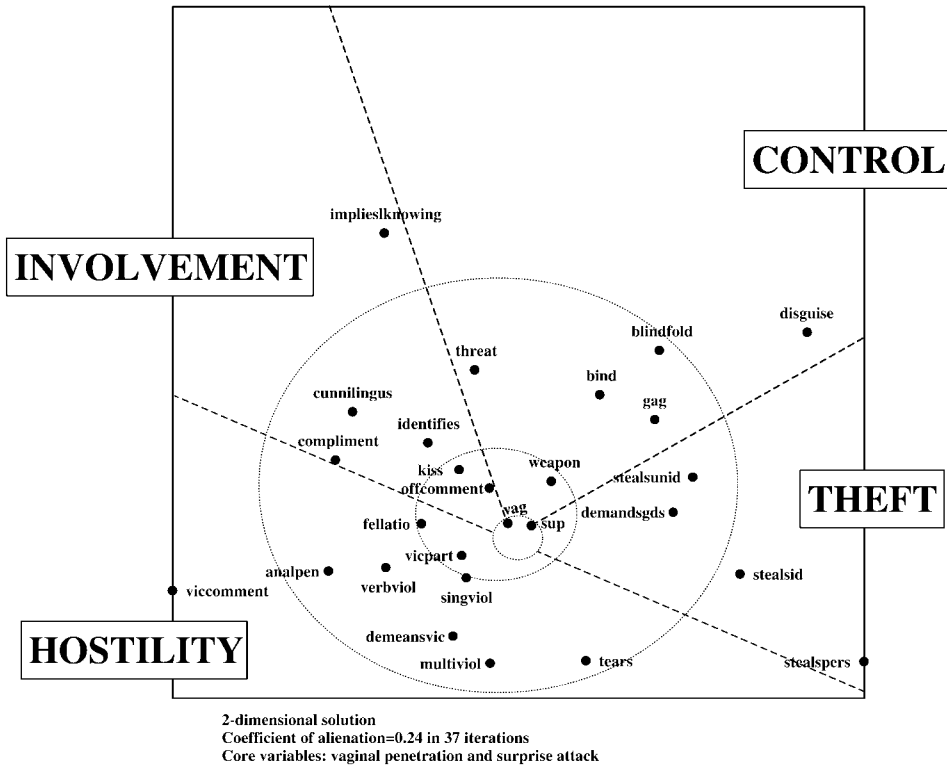


Figure 3. An SSA of 27 crime scene actions in 112 rapes indicating the varieties of violation. Variable labels are brief summaries of content analysis categories.

Sexual Violation

As indicated in Figure 2, behaviors that constitute sexual violation form a central region in the SSA plot. Sexually violating behaviors found in this high frequency band include fellatio, victim participation, offender sexual comment, and kisses. The use of a weapon, which we predicted would share a region with other physically violating behaviors, was also found in the sexual violation region. Item misplacements of this kind highlight the ambiguous nature of certain offence behaviors and are certainly not unusual in this sort of research (see, e.g., Plutchik & Conte, 1997). In this case, the fact that weapon use shares a region with other sexually violating behaviors suggests that it might be needed in order to control the victim so that actual vaginal penetration can be carried out successfully.

Physical Violation

Within the moderate frequency contour, the majority of behaviors reflect physical violation of the victim. The physically violating actions in this region include single violence, verbal violence, anal penetration, demeans victim, multiple violence, tears

clothing, identifies victim, threatens no report, binds victim, blindfolds victim, gags victim, and demand goods. The victim's sense of sexual violation is therefore compounded by both physical threat and physical harm as defined by these offence behaviors. A number of offence behaviors shared a region with these behaviors that were not expected to, including compliments victim, cunnilingus, and steals unidentifiable.

Personal Violation

The majority of the lower frequency actions include behaviors that reflect personal violation: steals personal items, steals identifiable items, implies knowing the victim, and victim sexual comment. The variable disguise, which was expected to fall in the same region as other physically violating behaviors, was also found in this region.

Varieties of Violation

As in previous research, an examination of the crime scene actions around the central core revealed a coherent underlying structure within the offence behavior (Figure 3). As hypothesized, the four clusters of behaviors can be interpreted as representing the fourfold model of hostility, control, theft, and involvement. With regard to the predictions we made about which behaviors would indicate which mode of interaction, all 25 of the behaviors fell into the expected regions. Each theme and the variables located within that theme are discussed below. Kuder–Richardson 20 (K–R 20) coefficients, which provide an index of internal reliability, are also listed for each of the four behavioral themes. K–R 20 is equivalent to the more common Cronbachs' alpha but can be used with dichotomous data.

Hostility

The hostility region consists of nine items, which reflect the overtly aggressive interaction between offender and victim. Six variables emphasize what is defined as an aggressive style: tears clothing, multiple violence, single violence, anal sex, demeans victim, and verbal violence. Aggression and hostility is also implicit in the actions that reflect the victim being forced to take an active role in the offence: fellatio, forces victim sexual comment, and forces victim participation. There is a clear parallel between the actions categorized as hostility here and the victim as vehicle theme presented by Canter (1994), and the aggressive region in Canter and Heritage (1990). These findings also concur with Bartol's (1986) classification of some offences as expressive. The K–R 20 value for these items is 0.65, which is reasonable considering the data were not originally collected for empirical research.

Control

Six variables have been interpreted as offence behaviors that demonstrate the offender's control of the offence. The offender controls the victim through binding

her, gagging her, threatening her not to report the crime, and using a weapon. Other actions such as using a blindfold and wearing a disguise reflect the offender's attempt to conceal his identity. There is a clear parallel between the actions categorized as control in this SSA and the victim as object theme in the model proposed by Canter (1994). Both of these themes are comprised of actions that relate to demobilization of the victim and suggest various forms of pre-planning and preparation on the part of the offender. The K-R 20 value for these items is 0.51.

Theft

Four variables have been interpreted as offence behaviors that directly relate to criminal behaviors beyond the sexual component of the crime. The offender in this case is clearly using the opportunities presented by the crime for some future instrumental goal, not just for the immediate gratification of the rape. These behaviors include demanding goods from the victim, stealing personal goods, stealing identifiable goods, and stealing unidentifiable goods. These variables support the instrumental categorization proposed by Bartol (1986). The K-R 20 value for these items is 0.59.

Involvement

The remaining six variables are interpreted as offence behavior that has distinct involvement components. There is clearly a theme of attempted involvement with the victim within variables such as offender sexual comment, compliments the victim, identifies the victim, kisses the victim, and implies knowing the victim. Again, there is a clear parallel between the actions categorized as involvement here and the victim as person theme in the model by Canter (1994), and the intimacy region of Canter and Heritage (1990). The K-R 20 value for these items is 0.57.

Classifying Stranger Rapes

In order to test whether the proposed framework serves as a useful way of classifying stranger rapes, each of the 112 offences in the sample were individually examined to determine whether they could be assigned to a dominant behavioral theme (Salfati & Canter, 1999). Every offence was assigned a score for each of the four themes that reflected the frequency of hostile, controlling, theft, and involvement behaviors that occurred in the crime. To be assigned to a dominant theme, the frequency score for that theme had to be greater than or equal to the sum of the frequency scores for the other three themes combined. If this could not be done, the crime was either classified as a hybrid (indicating similar frequency scores on more than one theme) or as nothing (indicating that none of the behaviors in any of the themes were present in the crime).

Using this procedure, 73% of the 112 rapes could be assigned to a dominant theme, 25% of the rapes needed to be classified as hybrids, and 2% could neither be classified as having a dominant theme or a hybrid. Out of the 73% of rapes that could be assigned a dominant theme, 26% of them were classified as hostility, 10%

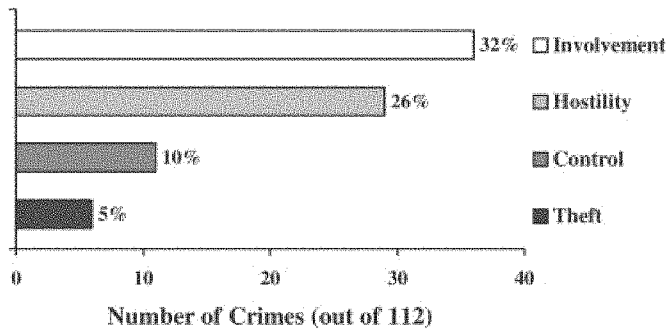


Figure 4. Distribution of crimes across dominant behavioral themes.

of them were classified as control, 5% of them were classified as theft, and the remaining 32% of them were classified as involvement (see Figure 4).

The Composite Model of Stranger Rape

The combination of a modular facet of violation and a polarizing facet comprised of four modes of interaction results in a composite model of rape. Examination of the SSA plots in Figures 2 and 3 indicates that control offences are predominantly physically violating, theft offences are predominantly personally violating, involvement offences are predominantly sexually violating, and hostile offences are a combination of all three levels of violation.

DISCUSSION AND CONCLUSION

An examination of the results in the present study indicates a general pattern of frequencies in the SSA plot. Higher frequency crime scene actions are generally located at the center of the plot with frequencies slowly decreasing in a relatively uniform pattern outwards toward the periphery. An important clarification in the present study is the specification of the modular facet. As hypothesized, this facet was comprised of a central core of actions reflecting sexual violation, a medium frequency contour reflecting physical violation and a low frequency contour consisting of the less intrusive personally violating behaviors. This finding concurs with the literature on the psychological effects of rape in establishing the significance of sexual penetration as forming the core aspect of rape. The general pattern of frequencies indicates that rape is primarily about violation. In its most extreme expression this involves sexual violation of the victim's genitalia. However, the variations between offences are made up of the more subtle forms of physical and personal violation that are also an inevitable part of rape.

This interpretation of the modular facet carries with it a number of implications. Perhaps the most important of these is the recognition that the distinguishing characteristics of rapists are less likely to be found in aspects of the sexual violation, or even in the form of physical assault. They are more likely to be revealed in those styles of interpersonal transaction that are typical of the assault. This is interesting in

and of itself but it also suggests that behavioral frequencies will need to be carefully considered when carrying out certain investigative tasks. The results indicate, for example, that when attempting to link a potential series of unsolved crimes to the offender responsible, care should be taken to avoid spurious links that may result if too much weight is given to the sexual behaviors exhibited by the offender(s).

The results presented in this paper lend further support to findings from a number of previous studies. Rapes can be distinguished in terms of the mode of interaction between an offender and his victim. In the present study these interactions were found to have the distinct themes of hostility, control, theft, and involvement with the victim. The interpretation of this polar facet also makes it clear that there is a more general division that can be made in stranger rapes—the distinction between overtly violent rapes made up of hostility behaviors and less violent rapes consisting of behaviors from the three themes of control, theft, and involvement (Figure 3). Indeed, it is likely that researchers adopting different theoretical perspectives will be able to examine the SSA plot presented in this paper and interpret it in other, equally useful ways.

One of the advantages of a model such as the one presented here is that it indicates gaps in the plot where no variables are found. Previous research has argued that these gaps can be quite meaningful (Canter et al., 1998). For example, it could be hypothesized that the gap in Figures 2 and 3 along the theft–hostility partition indicates that the rapes in the current sample do not consist of actions that can “map” onto these locations. Adjacent behaviors in the hostility region (e.g. multiple violence, demeans victim, tears clothing, etc) may suggest that these missing variables are a cluster of actions that represent extreme forms of hostility or sadistic aggression. One possibility for why these behaviors are not included in the present sample of stranger rapes, therefore, might be because these actions often result in homicide. Future research could test such hypotheses.

The center of gravity of the points in the SSA plot also suggests that stranger rapes, or at least this sample of stranger rapes, may be explained less in reference to power and control than to hostility and pseudo-intimacy. This is also supported by the results presented in Figure 4, where each of the 112 rapes making up the present sample was classified into dominant themes. Fifty-eight per cent of the rapes could be classified as either involvement offences or hostile offences compared with 15%, which could be classified as control or theft. This bias towards hostility and pseudo-intimacy suggests a very different emphasis from what is suggested by a number of current perspectives on rape.

More generally, the establishment of behavioral themes in rape opens up the possibility that it might not be the specific behaviors an offender exhibits at his crime scene that are important but rather the function these behaviors serve. In other words, discrete crime scene behaviors may be less significant than the underlying themes of the offence: themes that can be expressed by the offender in a number of behaviorally different ways. Not only does this perspective provide a new way of thinking about offending behavior, it also provides new ways of carrying out investigative tasks. The first author has already applied such ideas to the area of offender profiling (see, e.g., Canter, 2000; Canter & Fritzon, 1998; Salfati & Canter, 1999) and research is currently being undertaken in a wide variety of other areas including the development of thematically based interview strategies, the development of techniques for examining the credibility of abuse allegations, and the development of methods for

determining whether a potential series of unsolved crimes have been committed by the same offender. The application of this thematic approach to volume crimes such as burglary is also proving productive (Yokota & Canter, 2002).

The final point to be emphasized about the present model is that it derived from the account given by the victim rather than from the consideration of the offender in a therapeutic context. It may therefore prove to be of particular help in supporting victims through the legal process, especially when the lack of overt physical violence is used by the defense to claim consent. It may also help in therapeutic contact with survivors of rape by providing a framework that may help them to come to terms with their own particular trauma.

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APPENDIX: VARIABLES USED TO DESCRIBE OFFENDER'S BEHAVIOR DURING AN OFFENCE AS DERIVED FROM CONTENT ANALYSIS OF VICTIM STATEMENTS

Twenty-seven variables were created from a content analysis of victim statements in order to provide a list of elements common to offences. All variables are dichotomous with values based on the presence (1) or absence (0) of each category of behavior. A description of the categorization scheme in alphabetical order is given below.

1. *Anal penetration*. This variable refers to the offender penetrating or attempting to penetrate the victim's anus.
2. *Binds victim*. This variable refers to the use, at any time during the attack, of any article to bind the victim (excluding restraint by the offender's hands).
3. *Blindfolds victim*. This variable refers to the use, at any time during the attack, of any physical interference with the victim's ability to see (excluding verbal threats to the victim to close her eyes or the use of the offender's hands).
4. *Compliments victim*. This variable refers to the offender complimenting the victim (e.g. on her appearance).
5. *Cunnilingus*. This variable refers to the offender performing a sexual act on the victim's genitalia or attempting to perform such a sex act using his mouth.

6. *Demands goods*. This variable refers to the offender approaching the victim with a demand for goods or money. This variable specifically relates to initial demands.
7. *Demeans victim*. This variable refers the offender demeaning or insulting the victim (e.g. using profanities directed against the victim or women in general).
8. *Disguise*. This variable refers to the offender wearing any form of disguise.
9. *Fellatio*. This variable refers to the offender forcing the victim to perform oral sex.
10. *Forces victim participation*. This variable refers to the offender forcing the victim to physically participate in the sexual aspects of the offence.
11. *Forces victim sexual comment*. This variable refers to the offender forcing the victim to make sexual comments.
12. *Gags victim*. This variable refers to the use, at any time during the attack, of any article to prevent the victim from making noise (excluding the temporary use of the offender's hand).
13. *Identifies victim*. This variable refers to the offender takings steps to obtain from the victim details that would identify her (e.g. examining the victim's belongings).
14. *Implies knowing victim*. This variable refers to the offender implying that he knows the victim.
15. *Kisses victim*. This variable refers to the offender kissing or attempting to kiss the victim.
16. *Multiple violence*. This variable refers to the offender perpetrating multiple acts of violence against the victim (e.g. multiple punches).
17. *Offender sexual comment*. This variable refers to the offender making sexual comments during the attack.
18. *Single violence*. This variable refers to the offender perpetrating a single act of violence against the victim (e.g. a single slap).
19. *Steals identifiable*. This variable refers to the offender stealing items from the victim that are recognizable as belonging to the victim.
20. *Steals personal*. This variable refers to the offender stealing items from the victim that are personal to the victim but not necessarily of any great value in terms of re-saleable goods (e.g. photographs or letters).
21. *Steals unidentifiable*. This variable refers to the offender stealing items from the victim that are not recognizable as belonging to the victim (e.g. cash).
22. *Surprise attack*. This variable refers to the offender using a method of approach consisting of an immediate attack on the victim.
23. *Tears clothing*. This variable refers to the offender forcibly removing the victim's clothing in a violent manner.
24. *Threatens no report*. This variable refers to the offender threatening the victim that she should not report the incident to the police or to any other person.
25. *Vaginal penetration*. This variable refers to the offender penetrating or attempting the victim's vagina.
26. *Verbal violence*. This variable refers to the offender threatening the victim at some time during the attack (excluding threats not to report the incident).
27. *Weapon use*. This variable refers to the offender displaying a weapon in order to control the victim.