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Predictors of risk in serious sex offenders

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With the exception of a very few prolific offenders, sex offending is not a high rate activity. Even recidivist offenders will commit only a small number of offences in their careers, and these may be separated by intervals of years. Because of this, anyone setting out to predict reoffending by sex offenders will do best if they simply assume that none will reoffend, in which case they will be right more often than not. But such an approach, of course, would be criticised for being oversimplistic. Sex offenders have a history, and there is a common belief that if we know enough about an individual's past we should be able to predict his future with great accuracy. This has led some workers to claim that if the right variables can be discovered and plugged into a risk assessment algorithm, then the resulting desktop prediction of risk will outperform any competing clinical method.

For their part, clinicians are often suspicious of actuarial approaches, arguing that the heterogeneous nature of sex offender populations and the variety of contexts in which sex offences occur make suspect any reliance on what are mainly static historical data. In its place, they advocate a more qualitative clinical approach. In reality this tends to be based on anecdotal experience and an attempt to find order in and classify individuals based on what in the end must be a limited sample (critics refer to this as the "I know a man who . . ." approach to risk assessment). Improvement in risk assessment is seen as a function of increased experience. Neither the actuarial or clinical approach, however, has to date proven to be particularly successful.

ACTUARIAL APPROACHES

Before looking at how actuarial and clinical approaches might benefit each other, it is worth looking at each in turn. There are a number of studies that demonstrate the actuarial approach, and its search for variables that can lead to an objective prediction of risk. The most simple actuarial studies employ just one or two variables. A useful place to start is a study by Marshall (1994) in which a random sample of nearly 13 000 male offenders of all types released from prison in England and Wales in 1987 were followed for four years. The population was divided into two groups depending on whether or not there was any history of sexual offending. This single variable was, statistically, a good predictor; although just 7% of the released prisoners had a current or past conviction for a sex offence, they accounted for 31% of the subsequent sex offence convictions collected by the population over the next four years.

When you look at the actual numbers rather than percentages or chi-square values, however, the results are much less impressive. True, those with a history of sex offending were seven times more likely to receive a conviction for a sex offence in the future, but the fact was that only 61 (7%) of the 926 men with such a history of sex offending actually reoffended. In addition, while only 1% of those without a sex offence conviction committed a sex offence over the next four years, because this 1% came from a sample size of over 12 000 they represented many more future sex offenders in real terms: 136 compared with 61.

But Marshall (1994) used only a single variable, and those who support actuarial prediction would point out the need for more data. After all, successful racehorse pickers do not look only at the number of past wins. Thornton & Travers (1991), in another UK study, took as their starting point the higher risk group of convicted sex offenders, following up over 10 years 313 offenders who were released from prison in 1980. All had been convicted of offences of at least moderate severity. They chose three variables that have in the past been associated with sexual recidivism: previous convictions for a sex offence; previous conviction for offences of nonsexual violence; and repeated offending of any type (i.e. having four or more previous convictions). They found that those men with any one of these risk factors were much more likely to commit a further sex offence over the next ten years, with 26% of those with one or more risk factors sexually reoffending compared with just 5% of men who had no risk factor; 43% of those with any risk factor committed a further *either* sexual or violent offence compared with only 13% of those who were risk-factor free.

Again, these are impressive figures which on closer inspection become less so. The problem in this case is that even in the risk-factor group, three out of four men did not reoffend over the next ten years. This means that if one relied too heavily on the algorithm, the number of false positives would be exceptionally high; given that three-quarters of the sample were positive for one or more risk factor, there is the risk that more false than true positives would be produced.

Because of this risk of a high false positive rate, the authors set out to break things down more finely. They divided the sample into two groups, one having been convicted of "non-violent" sex offences (mainly offences against children), the other having been convicted for offences of "general violence" (i.e. rape or non-sexual assault). For the first group, risk factors were identified as having a current or past conviction for a "non-violent" sex offence, and having more than four convictions of any sort; for the second group, relevant risk factors were a current or past conviction for an offence of general violence, more than four convictions of any sort, and being under the age of 30 at the time of their index offence. In each group the men were subdivided according to the number of risk factors they had.

It was found that as the number of risk factors increased, so too did the likelihood of reoffending. Thus, 5% of those with no or one risk factor for a "non-violent" sex offence, 21% of those with two, and 41% of those with three were reconvicted of a "non-violent" sex offence. Similarly, 6% of those with no or one risk factor for general violence, 23% of those with two, and 51% of those with three went on to commit a violent offence. Furthermore, the risk factors for one type of offence were not predictive of the other type, with, for example, 24% of those with no or one risk factor for non-violent sex offences, 22% with two, and 20% with three going on to commit an offence of general

violence. In other words, the identified risk factors were also good at discriminating risk in terms of the type of offence these individuals would go on to commit. This is not to say, however, that offenders with risk factors for one type of offence do not go on to commit the other type, but only that the risk factors themselves are specific for each offence type.

Although the focus of work such as this is on identifying high-risk individuals, it is interesting that what this study appears to demonstrate is that we are better able to identify those at *low* risk. When one looks at the prediction of high risk, the most that can be said is that a high-risk group can be recognised; within this group, however, the actuarial data is of little help. For example, even in the group that is most at risk of reoffending, that is, those men whose index offence was one of general violence and who had three or four risk factors for this type of offence, only one out of two reoffended, a level of certainty similar to that of flipping a coin.

But again, it can always be argued that all that is needed are more and better variables to plug into a risk-assessment equation. A Canadian group (Quinsey *et al*, 1995) set out to do just this, creating a risk factor scale based on nine variables that, they claim, not only provide an accurate, linear assessment of risk but, for those with high scores, gives a probability of reoffending that approaches one. As in other methods, the most important variable was the number of previous sex offence convictions, with the number of previous prison sentences also being important. The remaining seven variables, in fact, accounted for relatively little of the variance. These other variables, in order of importance, were: the rating on the Hare Psychopathy Checklist; the number of past violent convictions; a history of never having been married; having a female victim; having a male child victim; having fewer convictions for theft-related offences; and deviant arousal on penile plethysmography evaluation.

Using this algorithm on a population of about 180 sex offenders released from a maximum security hospital, it was found that the risk of reoffending was closely related to, and increased with, the risk score. The authors claimed that this method improved the reliability of prediction by about 40% over chance.

But how useful would this improvement be in practice? Almost all of the men had risk scores that gave a probability of reoffending of below 40%; the largest group of men had a probability of reoffending of about 30%. It is not until one gets to those with the highest scores that the probability of reoffending becomes meaningful at around 85%. But this accounted for only six men, about 3% of the sample. They do not give clinical descriptions of these six men, but they were likely to have been very and obviously disordered, and one can only wonder whether all these complicated statistics were really necessary to predict that they were at high risk of reoffending. Even with all these extra variables, therefore, we are on the whole still left with little more than a good prediction of low-risk individuals, and the identification of a group of men who, as a group, are at higher risk of committing another sexual offence.

There are thus a number of problems inherent in using actuarial techniques to predict risk of reoffending in sex offenders. Firstly, they are empirically driven with little in the way of theoretical foundation, which means that there is little reason to believe that findings from one population can be generalised to another (some have referred to this as like finding Easter eggs that you've hidden yourself). Secondly, they rely essentially on static historical data that, by definition, do not alter; regardless of changes in circumstance, treatment or maturity, the risk of reoffending generated by these techniques should remain the same. Thirdly, actuarial approaches do not make use of rare characteristics that may in fact be the most relevant factors in terms of an individual's offending. Finally, and most importantly, actuarial prediction makes probability statements about groups, and unless the event of concern has a reasonably high frequency, it is only of limited use in helping to decide what to do in individual cases.

An example to illustrate this final point might be helpful. Say that actuarial techniques are refined to the extent that they can predict with 90% accuracy who will reoffend and who will not, a figure that is much higher than anything achieved so far. If there are 4000 sex offenders in prison, and if the recidivism rate is assumed to be 10%, then 400 of these men will reoffend, while 3600 will not. With a 90% accurate actuarial tool, we would successfully identify 360 of the 400 reoffenders (missing 40), but we would also decide incorrectly that 360 (that is, 10%) of the 3600 non-offenders would reoffend. In the end, we would have a group of 720 men predicted to reoffend of whom only 360 (50%) would actually do so.

If all that is intended is to identify a group at higher risk so that more specific input can be directed towards the individuals in it, then actuarial approaches are as good a filter mechanism as any. But for a doctor, psychologist or probation officer sitting in a clinic or a prison needing to make a decision about whether the individual sitting across from him is going to go out and commit a sex offence, the actuarial tables are of limited use. Variables that are important to the actuaries may have little clinical meaning, but in any case sex offenders cannot simply be viewed as bundles of variables.

CLINICAL APPROACHES

From a clinical point of view, an understanding of the phenomenology of sex offending is necessary if historical type predictors like those described above are to be of any use. It is not a question of finding more variables. It is better understanding of underlying mental states and psychopathology that will help to distinguish those who are at high risk from those at low risk, particularly given a similarity in factors such as past numbers of sex offences.

Perhaps the best known attempt to do this was Brittain's (1970) account of the 'typical' sadistic murder. This was based wholly on his clinical experience, and he did not pretend to have validated it with any form of research. He characterised the sadistic murderer as an introverted, timid, overcontrolled and socially isolated man, overdependent on a mother with whom he had an ambivalent relationship. He said that this type of offender was sexually prudish, reserved and inexperienced, but sexually deviant, with a rich, sadistic fantasy life and an interest in violence. Brittain believed that these individuals had low self-esteem but great vanity, and that because of this combination they usually offended after a blow to their self-esteem.

It is precisely this sort of description, however, that the actuaries criticise. Brittain's account is a composite picture, and it would be extremely rare to meet anyone who possessed all of these characteristics. But it is unclear how many, if any, of these factors are either necessary or sufficient to classify an individual as a potential sadistic killer, or even if any one component should be considered more important than any

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other. If in a particular case an individual does not have an ambivalent relationship with his mother, does this mean that he is an unlikely sadistic killer? Or if he is introverted, sexually prudish and has a sadistic fantasy life, does this mean that he is?

Brittain's description is often accepted as accurate, but in fact it has never been tested. This may be because it sounds good, fitting our preconceived ideas of what a sadistic killer should be like. But leaving apart our ignorance of whether it really does describe sadistic killers well, for all we know it may also provide a reasonable account of what non-sadistic rapists, murderers in general, thieves, or even typical university students are like. Brittain's description should not simply be dismissed, of course, but at present it is perhaps best regarded as literature rather than science.

In the 1980s, researchers began to examine more closely the phenomenology of some types of sexual offending. An important study along these lines, and one that had great impact on the practice of forensic psychiatry, involved just 13 sadistic offenders in an English special hospital (MacCulloch *et al*, 1983). A pattern was observed in which sadistic sexual fantasies, present from an early age, became more elaborate over time and eventually led to what were called behavioural 'try-outs' where aspects of the fantasies were tested out in behaviour. These try-outs would then themselves feed the fantasies, which in turn fed back into more elaborate behaviours, with the cycle accelerating into serious sexual offending. For example, a man with fantasies of stalking a woman, kidnapping and torturing her might follow a woman in the street, and any anxiety or fear displayed by that woman would then become incorporated into his fantasy. One important implication of this observation is that sadistic offending of this type is not dependent on external stimuli *per se*, but is internally driven; MacCulloch *et al* (1983) commented that their subjects sought out or created situations to reflect what was happening in their fantasy lives. This is contrary to Brittain's claim that offending occurred after a blow to the offender's self-esteem.

Given its apparently obvious nature, one might wonder why the idea that fantasy might have such an important influence on behaviour was a revelation at the time, but it was certainly followed up more systematically in research carried out in the US, particularly by a group working with the FBI. They demonstrated that fantasy was indeed an important driving force in the motivation behind the offending of a group of serious, serial offenders. In one study, for example, they compared serial sexual killers with men who had committed a single sexual murder (Prentky *et al*, 1989). It was found that men in the former group were more likely to admit to offence-related fantasies at interview, but that in addition they engaged in a number of behaviours such as voyeurism and fetishism that the researchers believed also indicated a rich fantasy life, with the behaviours themselves being designed to collect material for their fantasies. They were also more likely to have left organised crime scenes (that is, they took steps to conceal or alter evidence to avoid detection), again suggestive that the crime had been rehearsed previously in fantasy.

It must be pointed out that the men in the FBI sample were not representative of sexual offenders in general, or even sadistic offenders in particular. Most had carried out large numbers of carefully planned, and often horrific, crimes. Whether the distinction is qualitative or simply quantitative, it limits the extent to which the findings from studies such as this can be generalised to other groups of offenders.

Even apart from this, however, the problem with research of this type is that its subjects have all already committed serious sexual offences. Fantasy may be a *sensitive* indicator of risk, but it is unclear how *specific* it is. Even if fantasy is fundamental to sadistic offending and is present in all sadistic offenders (although even this has still to be demonstrated), there is a good deal of fantasy out there, and probably a lot of people engaging in what might appear to be behavioural try-outs who will not progress to sexual offending. In practice, a decision needs to be made about the risk posed by men who might be in the early stages of the cycle described by MacCulloch, or who may not be. What, therefore, is the link between fantasy and sexual offending behaviour, and is it something that can be evaluated as part of a clinical assessment of risk? How are we able to determine those men who are at higher risk of acting out their sadistic fantasies?

A number of suggestions have been made in relation to how higher risk individuals with worrying fantasies can be identified. For example, it is commonly said that some men lack whatever factors inhibit other individuals who have similar fantasies from acting on them, usually because of a disorder of personality, the nature of which does not tend to be specified beyond its antisocial traits. This explanation, however, is a circular one, as it is the offending behaviour itself that usually leads to the diagnosis of personality disorder in the first place.

MacCulloch *et al* (1983) suggested a different mechanism. They postulated that certain men have a pervasive sense of their failure to control events in the real world, and that fantasy ameliorates the distress this realisation causes them. They put forward a conditioning model whereby the fantasy is an operant that gives relief from these feelings of failure, but that as habituation takes place the fantasies need to become increasingly elaborate. Unfortunately, this model doesn't really take us much further in deciding to whom, among all those with sadistic fantasies, it should be applied, but more importantly, the evidence that is available doesn't seem to support it. For example, among the 36 men in the FBI sample, who by any account are at the far end of the sadistic spectrum, there was a bouncer, a nude photo proprietor, a banker, a sales manager, a law student, and a real estate developer – not professions one usually associated with ineffectiveness in their worldly interactions. Although one could argue that underneath their confident exteriors these men felt a pervasive inability to influence events in the world, such a psychodynamic interpretation would be hard to demonstrate.

Another approach has been to look at historical or behavioural variables, borrowing from the actuarial model, but then looking for explanations of how or why they contribute to the offending behaviour. For example, the FBI group described histories in sadistic offenders characterised by parental separation, physical or sexual abuse, and paraphilic behaviours. These variables were linked to behaviour in a model that incorporated impaired early attachment, early trauma, a violent fantasy life, and interaction between fantasy and behaviour that nourished repetitive thinking patterns (Burgess *et al*, 1986; Dietz *et al*, 1990).

But does their data support this model? Do their clinical descriptions distinguish a type of individual who is at higher risk of serious sexual offending? To examine this, I compared the 30 offenders for whom they gave relevant information with 142 convicted rapists I interviewed in prison as part of a study funded by the Home

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Table 1 Comparison of FBI sample of sexual sadists (Dietz *et al*, 1990) with 121 convicted UK rapists and 21 UK men who killed in a sexual context (Grubin & Gunn, 1990)

	Dietz *et al* (1990) (*n*=30)	Rape (*n*=121)	Murder (*n*=21)
White***	29 (97%)	73 (60%)	21 (100%)
Parental separation*	14 (47%)	39 (32%)	3 (14%)
Physical abuse	7 (23%)	34 (28%)	5 (24%)
Sexual abuse	6 (20%)	12 (10%)	4 (19%)
Paraphilic behaviour	6 (20%)	15 (13%)	6 (25%)

***$P<0.001$, *$P<0.05$.

Office (Grubin & Gunn, 1991; Grubin, 1994). Our sample was divided into two groups, not according to whether they were sadistic offenders or not (because of difficulties in deciding how this could be done reliably), but according to whether or not the rapists had killed their victims.

When compared with other sexually aggressive men, the FBI's sample is not remarkable in terms of the characteristics that they suggest should be discriminating (Table 1). None of the three groups differed significantly in terms of their histories of physical or sexual abuse, or in terms of their histories of paraphilic behaviour. A difference did emerge in relation to parental separation during childhood, but not in the direction predicted by the FBI researchers; separation was less common among the men who had killed, but there was no difference between the sadists and the 'ordinary' rapists. One finding of interest was that in spite of the well-known overrepresentation of ethnic minority groups in sex offender populations (which has many causes), the sexual sadists and sexual killers were virtually all white. Why this should be the case is unclear, but it may reflect cultural differences in upbringing which, if better understood, would certainly contribute to our ability to predict risk as well as improve treatment interventions.

Focusing just on our 142 rapists, another factor emerged that appeared to distinguish those who killed from those who did not. This was their degree of isolation, both in a social and an emotional sense (Table 2). As children, about half were loners who were not part of a peer group, and as adults about a third were *literally* socially isolated with little if any interaction with other people. About half were living alone at the time of their offences. In addition, over 60% had few if any intimate relationships with women in their lives. What relationships they had formed were usually limited, with little emotional feeling of congruence with their partners, which appeared to contribute to their sense of isolation even within the relationship. Of the 21 murderers, 18 (86%) were positive for at least one of these features.

In the literature about sadistic offenders and sexual killers, this feature of isolation, either social or emotional, was often mentioned but not elaborated on to any extent. Brittain (1970) said that sadistic murderers were timid, introverted and socially isolated, MacCulloch *et al* (1983) said that sadist offenders had "general difficulties" in social relationships from an early age, and Dietz *et al* (1990) stated that sexual sadists displayed great narcissism. The Swiss psychoanalyst Boss (1949) put it well when he referred to a "wall of grey glass" that separated sadists from the world.

Given its presence, it is important to avoid simply treating this pervasive isolation as yet another variable to add to a risk equation. Instead, it will be necessary to examine how the characteristic might influence the offending of men with sadistic fantasies as well as those whose offending is not driven by fantasy. It could, for example, represent a failure of intimacy skills, which leads to inappropriate attempts to enter into relationships. It could be a reflection of personal loneliness, which again leads to inappropriate approaches, or it could be an indication of poor social skills which do not contribute directly to offending at all. I believe, however, that this isolation is an indication of something much more fundamental and integral to sexual offending in these men, related to a disorder associated with empathy.

EMPATHY

Empathy can be thought of as the ability to identify and understand the feelings and reactions of other people. This can be broken down into two components (Hanson, 1997). First is the cognitive aspect, sometimes referred to as projection, which is the ability to recognise the feelings of others. The second component is an emotional one, and relates to the emotional response one has to this recognition, for example, the feelings of sadness, compassion or concern most people feel when they perceive distress in others. There may be an abnormality in either of these elements, or in both.

Figure 1 outlines how abnormalities in empathy may influence sexual offending. Men with sadistic fantasies, or sexually aggressive men, may not engage in any sexual behaviour, they may have sex with partners who consent to their behaviours, or they may use prostitutes. If there is also an abnormality in their empathic capacity, however (indicated by their social or emotional isolation), then there may be implications relating to how their sexual behaviour is manifested.

(a) If the deficit is a cognitive one, with the individual not being able to appreciate a potential victim's perspective, then a sexual interaction or attack may escalate to a sexual killing: panic, anger, or an attempt to silence a witness may lead to homicide, since the concept of taking someone's life has little real meaning for them.

(b) If the abnormality is one of emotional response, with the pain or fear of their victim giving rise to feelings of pleasure, sexual arousal or anger, then sadistic offending may follow.

Table 2 Comparison of rapists who had not killed with sexual killers in terms of isolation

	Non-murder (*n*=121)	Murder (*n*=21)	*P*<
Not part of childhood peer group	23 (19%)	9 (43%)	0.01
Lives alone	26 (22%)	9 (43%)	0.05
Socially isolated	6 (5%)	6 (29%)	0.001
Few sexual relationships	23 (19%)	13 (62%)	0.0001

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(c) If the individual has the capacity to empathise normally, but simply does not apply it in specific situations, for instance, in the context of alcohol or drug use, or when angry, then more common sexual aggression, short of killing, may take place.

There are a number of possible aetiologies for these abnormalities in empathy. It may be organic, either genetic in origin or perhaps the result of early brain injury. It could also arise from developmental causes, with early experiences of physical, sexual or emotional abuse preventing normal attachment bonds from forming and adversely affecting the normal development of empathy. This latter possibility would be consistent with the model put forward by the FBI researchers.

Of course, this is speculative, but it is testable. Although ethical problems and the need for long-term follow-up make prospective studies problematical, retrospective studies in which large numbers of convicted offenders were independently rated in terms of their empathic capacity would indicate whether those who kill, or whose offences are sadistic in nature (again independently rated), did in fact have an abnormality in empathy.

Although interpretation of the results is not straightforward, some support for this model is provided in a study of 149 Canadian sex offenders who were compared with a variety of control groups (Hanson & Scott, 1995). Among the rapists (none of whom had killed), it was found that those whose offences were more violent made fewer errors related to perspective-taking on cleverly constructed vignettes. It was argued that because the ability to perceive a victim's distress should inhibit sexual offending, the increased amount of violence was possibly an indicator of more sadistic offending where perspective-taking was normal, but there was a disorder in the 'emotional' component of empathy.

What am I suggesting, therefore, is that in a clinical setting there is a need to get away from focusing too closely on variables for their actuarial relevance, and to think instead about characteristics that have clinical meaning. Only when the phenomenology and psychopathology of the individuals who are being assessed are understood can at least some of the findings of data-based research become more relevant to the risk assessment of those individuals. Men who have histories of previous offending, deviant fantasies, or behavioural rehearsals clearly belong to an 'at risk' group, but if in addition they have a longstanding history of social and emotional isolation, then those at most risk of carrying out sadistic or extremely aggressive sexual attacks within this group may become more clearly delineated.

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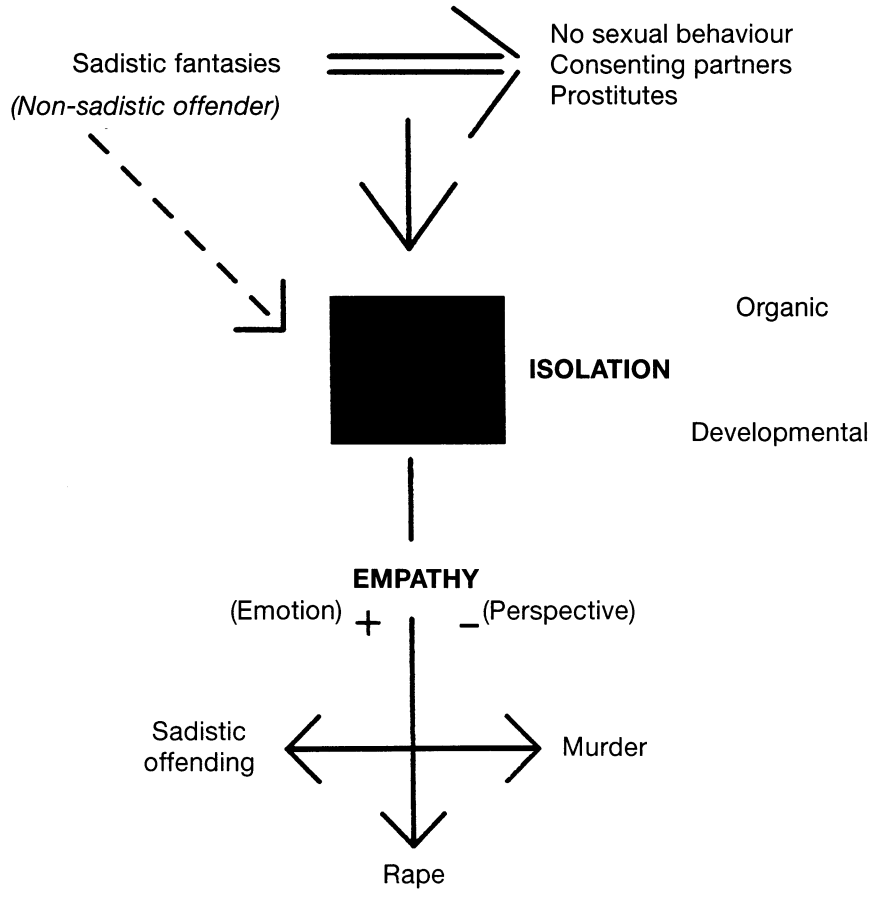

Fig. 1 The effects of abnormalities of empathy on sexual offending.

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