

## The Criminal Activity of Sexual Offenders in Adulthood: Revisiting the Specialization Debate

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## Abstract

Two major hypotheses have been put forward to describe the criminal activity of sexual offenders in adulthood. The first hypothesis states that sexual offenders are specialists who tend to repeat sexual crimes. The second hypothesis describes sexual offenders as generalists who do not restrict themselves to one particular type of crime. The current state of knowledge provides empirical support for both the specialization and the generality hypothesis. The presence of both generality and specialization in the offending behavior of sexual offenders is not as contradictory as it may first appear. However, methodological problems limit the possibility of drawing firm conclusions. Indeed, the specialization hypothesis is based on just one parameter of criminal activity, that is, recidivism, which only takes into account two consecutive crimes. The generality hypothesis is focused mainly on two criminal activity parameters, participation and variety, which do not take into account the dynamic nature of criminal activity over time. Developmental criminology provides a new paradigm to explore the issue of generality and specialization in the offending behavior of sexual offenders.

Key words: criminal activity; specialization; versatility; sex offenders.

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## The Criminal Activity of Sexual Offenders in Adulthood: Revisiting the Specialization Debate

In the criminal justice system, individuals having committed a sexual offence are considered a special kind of offender in need of a specific intervention (Simon, 1997, 2000). Over recent years, in North America and many European countries, various treatment programs were elaborated to rehabilitate sexual offenders (Lussier & Proulx, 2001). Although much controversy surrounded the evaluation of treatment effectiveness (Alexander, 1999; Hall, 1995; Marshall & Pithers, 1994; Quinsey, Harris, Rice, & Lalumière, 1993), many efforts were made to develop the risk management of sexual offenders. These efforts led to the identification of risk factors associated with sexual recidivism (Proulx & Lussier, 2001), as well as the emergence of various risk assessment scales designed specifically for sexual offenders (Boer, Hart, Kropp, & Webster, 1997; Hanson, 1997; Hanson & Thornton, 1999; Quinsey, Harris, Rice, & Cormier, 1998). At the same time, legal dispositions were introduced, such as the “Sexual Predator Laws” in the United States (Lieb, Quinsey, & Berliner, 1998) and the “Dangerous Offender Legislation” in Canada (Petrunik, 2003). These legislative changes were accompanied by measures attempting to reinforce formal and informal social control against sexual offenders, such as the “Registration and Community Notification Laws” (Simon, 1998). These specific measures taken by the criminal justice system were based on the assumption that individuals having committed a sexual offence tend to specialize in sexual crimes.

This assumption was recently challenged by criminologists arguing that sexual offenders do not restrict themselves to sexual crimes, their offending behavior being characterized by much generality (Sample & Bray, 2003; Simon, 1997, 2000; Smallbone, Wheaton, & Hourigan, 2003). Many studies were conducted in order to verify the specialization and generality hypotheses. Therefore, this study will review the empirical status of both hypotheses in an attempt to shed more light on this debate. By doing so, an emphasis will be placed on studies having used official measures of criminal activity, since only a limited number of studies used self-reported measures of crime. It is widely recognized that official measures of crime are subject to various methodological limitations when used for research purposes

because they are influenced, among other things, by the offender's ability to remain undetected, citizens' willingness to report a crime, the police efficiency in solving crimes, their recording practices and categorization of the offence (Weis, 1986).

### The Specialization Hypothesis

The specialization hypothesis states that sexual offenders are a special case of offender, having a specific propensity to commit sexual crimes. Specialization is perceived as the probability of repeating the same type of crime when next arrested (Blumstein, Cohen, Roth, & Visher, 1986). According to the specialization hypothesis, if the criminal activity of a sexual offender persists, it would be primarily in sexual crime. It is possible, however, that the level of specialization may vary across type of crime and type of offender (Cohen, 1986). Therefore, one should distinguish between two constructs, specialists and specialization (Farrington, Snyder, & Finnegan, 1988). For that reason, we will review the actual state of empirical evidence on whether sexual offenders are specialists of sexual crimes and the presence of specialization in sexual crimes. Recidivism studies were used to shed some light on the hypothesis that sexual offenders are specialists in sexual crimes, whereas studies using transition matrices were able to highlight the degree of specialization in sexual crime.

### Sexual Offenders and Recidivism

Several empirical studies investigated the recidivism of sexual offenders following their release (For reviews, Doren, 1998; Furby, Weinrott, & Blackshaw, 1989; Greenberg, 1998; Grubin & Wingate, 1996; Proulx, Tardif, Lamoureux, & Lussier, 2001; Quinsey, Lalumière, Rice, & Harris, 1995). The recidivism rates varied significantly across studies due to methodological differences, such as the definition of recidivism, data sources, and sample characteristics. The meta-analysis (12 studies,  $n = 1,313$ ) study by Hall (1995) showed that sexual offenders' sexual recidivism was 19% for treated participants compared to 27% for untreated participants. In another meta-analysis (61 studies,  $n = 28,972$ ), Hanson and Bussière (1998) found a sexual recidivism rate of 13% over an average follow-up period between 4 and 5 years. Using a quasi meta-analytic framework (79 studies,  $n = 10,988$ ),

Alexander (1999) obtained a sexual recidivism rate of 13% for sexual offenders having participated in a treatment program and 18% for untreated participants. Similarly, collapsing the results of 38 studies, Hanson et al. (2002) reported an average sexual recidivism rate of 12% for sex offenders having participated in a treatment program compared to 17% for a comparison group (i.e., treatment dropout, treatment refusers, untreated participants) over an average follow-up period of 46 months. Such results suggest that only a minority of offenders is at risk of recidivism. To get further insights regarding the likelihood of sexual recidivism, comparisons of recidivism rates between sex offenders and nonsexual offenders (i.e., between-group studies) and between types of sex offenders (i.e., within-group studies) have been examined.

*Between-Group Studies.* Based on the specialization hypothesis, one might expect that sexual offenders would show a higher likelihood of committing a sexual crime upon release compared to nonsexual offenders. A limited number of studies have compared sexual re-offending rates of sexual and nonsexual offenders. Langan, Schmitt & Durose (2003) compared the recidivism rate following the release of a large sample of nonsexual ( $n = 262,420$ ) and sexual offenders ( $n = 9,691$ ) in 15 US states in 1994. Nonsexual offenders showed a rate of about 1% compared to about 5% for sexual offenders for the same period. Therefore, the recidivism rate of sexual offenders was about four times higher than that of nonsexual offenders. In a similar fashion, Sample and Bray (2003) examined the recidivism rate of a large sample of individuals ( $n = 146,918$ ) who were arrested between 1990 and 1997. The sexual recidivism rate for a follow-up period of 5 years was about 6% for sexual offenders, whereas it varied between 0 and 3% for nonsexual offenders. More contrasting results were reported by Hanson, Scott and Steffy (1995) with a sample of 191 child molesters and 137 nonsexual offenders. The recidivism rate for sexual crime was 35% for sexual offenders, whereas for nonsexual offenders it was about 1%. The large difference observed between these studies could be explained by the following factors: (1) the Hanson study used a longer follow-up period, varying between 15 and 30 years, compared to 3- and 5-year follow-up periods in the Langan and Sample & Bray studies; (2) in the Hanson study, the control

group was selected so that their entire offence history was nonsexual, whereas in the Langan study, the control group included participants (6.5%) who had committed a sex crime prior to the sampled nonsexual offence; (3) the sample in the Hanson study was composed of more serious offenders, 42% of the sample of sex offenders having a prior record for a sexual offence, compared to 29% in the Langan study. Hence, it is possible that the length of the follow-up period used and sample composition influenced the sexual recidivism rates observed. More importantly, the Hanson study falsely gives the impression that most sex crimes are committed by sexual recidivists. Yet, contrary to the Hanson study which was based on a convenience sample, the Langan study was based on a representative sample of offenders released from prison. Taken that into account, the Langan study showed that those previously incarcerated for non-sexual crimes accounted for 87% of sexual recidivism compared to only 13% by sex offenders.

*Within-Group Studies.* The specialization hypothesis is based on the assumption that sexual offenders constitute a homogenous group of specialists in sexual crimes. Analyzing many studies, Quinsey et al. (1995) estimated a weighted average sexual reconviction rate of about 23% for offenders against women, 18% for heterosexual child molesters, 35% for homosexual child molesters and 8% for incest offenders. Similarly, combining the results of several studies, Alexander (1999) reported sexual recidivism rates of 20 and 24% for treated and untreated sexual aggressors of women. For heterosexual child molesters, sexual recidivism rates were 16% for treated and untreated participants whereas for homosexual child molesters it was 18 and 34% for treated and untreated participants respectively. In comparison, incest offenders showed sexual recidivism rates of 4% for treated and 12% for untreated participants. In summary, results from Quinsey and Alexander's studies suggest that incest offenders show a lower rate of sexual recidivism than heterosexual child molesters and sexual aggressors of women, homosexual child molesters showing the highest rate of sexual recidivism.

The likelihood of committing another sexual crime increases the longer the follow-up period. According to the meta-analysis of Hanson and Bussière (1998), for an average follow-up period of 4-5

years, the rate of sexual recidivism was 13 and 19% for offenders against children and offenders against women respectively. These numbers suggest that when using a short follow-up period, aggressors of women are more likely to commit another sexual crime than aggressors of children (Doren, 1998). The study of Prentky, Lee, Knight, and Cerce (1997), based on a sample of repetitive and/or aggressive sex offenders, showed that 26% of aggressors of women and 32% aggressors of children committed another sexual crime over a period of up to 25 years after their release. These rates rose to 39 and 52% respectively when taking into account time at risk. Similar numbers have been reported elsewhere for aggressors of women (Hildebrand, Ruiters, & Vogel, 2004) and aggressors of children (Soothill & Gibbens, 1978; Hanson, Steffy, & Gauthier, 1993). Hence, as the follow-up period increases, a higher proportion of aggressors of children continue to sexually re-offend compared to aggressors of women (Rice & Harris, 1997). Congruent with these observations, Hanson (2002) has recently shown that the recidivism rate of aggressors of women in adulthood dropped gradually with age, whereas for child molesters, it remained steady until the late forties. These numbers suggest different patterns of the probability of sexual recidivism for aggressors of women and children over time.

Several key criminal activity parameters are related to the tendency in sexual aggressors to commit another sexual crime. Across studies, first-time sex offenders showed a sexual recidivism rate between 10 and 21 %, whereas for sexual recidivists, this rate varied between 33 and 71 % (Marshall, Jones, Ward, Johnston, & Barbaree, 1991). Previous sexual charges are an important predictor of sexual recidivism (Hanson & Bussière, 1998), especially for child molesters (Firestone et al., 1999; Hanson et al., 1993, 1995; Prentky, Knight & Lee, 1997; Proulx et al., 1997; Rice, Quinsey & Harris, 1991). For rapists, a previous charge for a sexual crime against an adult female was related to sexual and violent recidivism (Hall, 1988; Rice, Harris, & Quinsey, 1990; Hildebrand et al., 2004, see however, Proulx et al., 1997). Previous charges for violent crimes have also been shown to be related to sexual recidivism in rapists (Hall, 1988; Rice et al., 1990; see however, Proulx et al., 1997), but not for child molesters (Firestone et al., 1999; Hanson et al., 1995; Proulx et al., 1997; see however, Rice et al., 1991). The

pioneering work of Radzinowicz (1957) established recidivism rates over a four-year period according to whether the past record of sex offenders included no previous conviction, nonsexual convictions only, sexual convictions only or sexual and nonsexual convictions as 11, 14, 33, and 42% respectively.

Generally speaking, these results suggest that studies based on samples with a higher concentration of individuals with extensive sexual and nonsexual criminal activity are more likely to show that sex offenders present a high likelihood of committing another sexual crime.

Using a different approach, Cohen (1986) looked at the percentage of specialists among various types of crime in a sample of adult arrestees. In her study, specialists were defined as individuals for whom about 50% of their prior arrests were for the same charge as their most recent offence. Using that definition, 14% of rapists were specialists compared to 19% of car thieves, 25% of burglars, 34% of nonsexually violent offenders and 35% of robbers. Unfortunately, Cohen did not report the proportion of specialists among different types of sexual crimes. In that regard, using a similar definition of specialization, Lussier, LeBlanc, and Proulx (2005) found that, among a sample of incarcerated sexual offenders, sexual crimes represented at least 50% of criminal activity for about 4% of individuals having committed their offence against women. This low proportion of specialists among aggressors of women is contrasted with 41 % of individuals having committed a sexual crime against children. In sum, few studies have looked at specialization in sexual crime, thus yielding mixed results which may be attributable to sample composition across studies. Results seem to suggest that the level of specialization varies across types of sexual offender, being lower for aggressors of women and higher for aggressors of children.

#### Transition Matrices Studies

To our knowledge, only three studies have examined specifically the level of specialization in sexual crime using transition matrices and Markov chains<sup>1</sup>. (Blumstein, Cohen, Das, & Moitra, 1988;

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<sup>1</sup> Transition matrices and Markov chains are statistical techniques that help analysing the sequence of crimes committed from the first to the most recent by looking at the probability of committing a particular crime given the previous crime type

Stander, Farrington, Hill, & Altman, 1989; Britt, 1996). These studies used the Forward Specialization Coefficient (FSC; Farrington, Snyder, & Finnegan, 1988), where specialization is said to occur when the actual number of offences significantly exceeds the expected number by chance alone. The FSC varies between 0 and 1, a higher coefficient indicating greater evidence of specialization. Britt (1996) and Blumstein et al. (1988) found low levels of specialization for rape, reporting a FSC of .09 and .18 respectively. The study of Stander et al. (1989) brought to light two interesting results. First, they found some evidence of specialization in sexual crimes as indicated by a FSC of .45. The difference with the above results might be explained by the fact that Stander et al. used a broad sexual crime category, whereas in the Britt and Blumstein et al. studies, the legal definition of rape was used, which might have favored a selection bias toward more violent sexual aggressors. It is possible that specialization is not independent of the propensity to use violence, as it was shown that sexual crime represented a smaller proportion of the criminal activity of violent sexual offenders compared to nonviolent sex offenders (Gebhard, Gagnon, Pomeroy, & Christensen, 1964). Furthermore, the Stander study found that the degree of specialization tended to decline with successive convictions. This trend was not found in the Blumstein study. The declining trend of specialization appeared to be attributable to the dropping out of the most specialized offenders over time. When looking separately at the most persistent offenders, Stander et al. found a positive relationship between the number of convictions and the FSC coefficient, suggesting a trend towards greater specialization in sexual crime over time. These results suggest the presence of two types of sexual crime specialists. One characterized by a low number of convictions of which many are for sexual crimes and the other by a diversified criminal activity that tends to become more specialized in sexual crime over time.

Few studies have examined the degree of specialization in sexual crime in comparison to other types of criminal behavior. The Langan and Levin (2002) study examined the recidivism of a large sample of individuals ( $n = 272,111$ ) in 15 US states, 3 years after being released from prison. During

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committed.



that follow-up period, the rate of re-arrest for rape was 2%, whereas it was 13% for robbers, 19% for defrauders, 22% for nonsexually violent offenders, 23% for burglars, 34% for larcenists and 41 % for drug offenders. Similar findings were reported by Sample and Bray (2003) using a large sample of arrestees in Illinois. In their study, they found that the rate of re-arrest for the same type of crime over a follow-up period of 5 years was 6% for sexual offences, 18% for robbery, 23% for burglary, 30% for larceny, 37% for nonsexual assault and 39% for property damage. Taken together, these results suggest that sexual crime does not involve greater specialization than other types of crime. In fact, the opposite was observed. Various factors may have influenced the degree of specialization observed for a particular type of crime (Blumstein et al., 1988; Cohen, 1986; Piquero, Farrington, & Blumstein, 2003). The proportion of sexual offences reported to the police and the chances of being arrested may be lower than for other types of crime. The time interval between the crime actually being committed and the arrest may be longer for sexual crimes, especially for child molestation. Furthermore, considering the low prevalence of sexual crime compared to other crime types, we would expect a lower probability of a sexual crime at the next arrest.

### The Generality Hypothesis

The generality of crime hypothesis suggests that sexual offenders are not a special case of offender. According to this perspective, the criminal activity of sexual offenders is versatile, that is, sexual offenders do not tend to restrict themselves to one particular type of crime (e.g., cafeteria-style offending). In fact, like other types of offender, they engage in various antisocial behaviors depending on the type of criminal opportunity arising (Gottfredson & Hirschi, 1990). According to the generality of crime hypothesis, we would expect sexual crimes to occur in a random fashion in the criminal activity of offenders. Therefore, based on this hypothesis, we would expect that (1) the criminal activity of sexual offenders include a variety of crimes; (2) apart from having committed a sexual offence, the criminal activity of sexual offenders should not be different to that of nonsexual offenders; (3) the

criminal activity of different types of sexual offender should not present distinctive features apart from the type of sexual crime having been committed.

#### Prior Criminal Records of Sexual Offenders

Few studies have investigated the criminal activity parameters of sexual offenders. In fact, studies having examined the criminal activity of these offenders have focused on participation (e.g., the fraction of a population ever committing at least one crime for some particular observation period; Gebhard et al., 1964; McCaldron, 1967; Amir, 1971; Adler, 1984; Grunfeld & Noreik, 1986; Soothill, Francis, Sanderson, & Ackerley, 2000; Soothill, Francis, Ackerley, & Fligelstone, 2002; Smallbone et al., 2003). This study's review of the scientific literature allowed the calculation of weighted average scores of participation for different types of crimes (Table 1). For aggressors of women, participation tend to be highest for property crimes (Mean = 47.1%; SD = 14.0; range = 28-93%), followed by violent crimes (Mean = 26.7%; SD = 12.4; range = 9-54%) and sexual crimes (Mean = 13.7%; SD = 12.0; range = 3-44%). On the other hand, for aggressors of children, participation tend to be highest for property crimes (Mean = 41.6%; SD = 17.5; range = 11-81 %), followed by sexual crimes (Mean = 23.7%; SD = 15.0; range = 11-53%) and violent crimes (Mean = 18.4%; SD = 12.7; range = 4-38%). Comparatively speaking, as a group, aggressors of women tended to participate more in nonsexual crimes compared to aggressors of children, who in turn, tended to participate more in sexual crimes. Similar results have been observed using self-reported crime data (Weinrott & Saylor, 1991). Important variations across studies were highlighted, however, which limit the possibility of drawing firm conclusions as to the participation in types of crime. Many factors could explain such variations, such as the definition of crime (arrest, charges, etc.), the items used to form crime categories, the nature of the sample and types of sexual offender. These studies suggest that the criminal activity of sexual offenders is not restricted to sexual crimes. However, they did not include a control group of nonsexual offenders, limiting the generalization of the results.

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*Between-Group Studies.* Only a limited number of studies have compared the criminal activity of sexual and nonsexual offenders. Sexual aggressors of women were no different from nonsexual offenders as to the number of property crimes committed (DeLisi, 2001). However, they did commit more violent crime than the latter group (DeLisi, 2001). On the other hand, sexual aggressors of women and violent offenders showed no statistical differences as to their participation in property crime (Adler, 1984) and the variety of the criminal repertoire (i.e., number of different types of crime; Simon, 2000). As for sexual aggressors of children, compared to nonsexual offenders, they participated less in nonsexual crime (Hanson et al., 1995) and had a less diversified criminal activity (Simon, 2000). Taken simultaneously, these results suggest that in many aspects, the criminal activity of aggressors of women is similar to that of the violent offender. However, aggressors of children tend to show a less diversified criminal repertoire with more sexual crimes. Consequently, based on these results, we should expect important differences between aggressors of women and children as to the criminal activity in adulthood.

*Within-Group Studies.* Using samples of adult offenders, the criminal activity of sexual aggressors of women and aggressors of children showed marked differences on various parameters. Compared to aggressors of children, aggressors of women showed an earlier age of onset for general (Adler, 1984; Baxter, Marshall, Barbaree, Davidson & Malcolm, 1984; Lussier, Proulx, and LeBlanc, 2005; Pham, DeBruyne & Kinappe, 1999), as well as sexual offending (Baxter et al., 1984; Lussier, LeBlanc, & Proulx, 2005). Furthermore, aggressors of women tend to commit more crime in general (Pham et al., 1999), more property crimes (Lussier, LeBlanc, & Proulx, 2005; Pham et al., 1999), and more violent crimes (Lussier, LeBlanc, & Proulx, 2005; Pham et al., 1999) than aggressors of children. On the other hand, the criminal activity of aggressors of children tends to include more sexual crimes (Lussier, LeBlanc, & Proulx, 2005), results which were not previously observed by Bard et al. (1987). This situation might be attributable to sample composition, as shown by Proulx, Ouimet, Boutin, and Lussier (2004) whose results indicated that extrafamilial child molesters had more sexual charges than

intrafamilial child molesters (Proulx et al., 2004). Aggressors of women have a more diversified criminal activity than aggressors of children (Simon, 2000; Lussier, LeBlanc, & Proulx, 2005). Proulx et al. (2004) did not report any significant statistical difference between extrafamilial and intrafamilial child molesters on their variety scale. Among incarcerated aggressors of women, Baxter et al. (1984) found that sexual crimes represented 25% of their criminal activity, whereas Lussier, LeBlanc, & Proulx, (2005) found that proportion to be 17%. On the other hand, for child molesters, the Baxter et al. study (1984) and the Lussier, LeBlanc, & Proulx, study (2005) both reported that sexual crimes represented 45% of their criminal activity. In summary, the criminal activity of aggressors of women is more precocious, frequent and diversified than that of aggressors of children who, comparatively speaking, tend to be late-onset offenders, with a low frequency and a more restricted criminal repertoire, mostly characterized by sexual crimes. Despite the generality of their criminal activity, these observations suggest that aggressors of women and aggressors of children tend to show different offending patterns. Lussier, LeBlanc, Proulx (2005) approached the question of generality in the criminal activity of sexual aggressors of women and sexual aggressors of children in a different manner. The official criminal behavior of 388 convicted sex offenders was analyzed using confirmatory factor analysis. Results showed a high pattern of covariance between the onset, frequency and variety for property, violent and sexual criminal activity in adulthood. This pattern of covariance was associated with the precocity and persistence of deviant behavior (e.g., authority-conflict, overt, covert, and reckless) in childhood right through adulthood, thus suggesting that sexual offenders' criminal activity could be explained by a general construct of deviance (Gottfredson & Hirschi, 1990). The results, however, also suggest that child molesters' frequency of sexual crime is not part of a general construct of deviance. In fact, the offending behavior of sexual aggressors of women is predominantly versatile and part of a propensity to act in an antisocial manner (Lussier, Proulx, & LeBlanc, 2005), whereas that of sexual aggressors of children tends to be more specific, at least for one dimension of their criminal activity. Indeed, the repetition of sexual crime in adulthood for this type of offender is linked to the

presence of deviant sexual preferences (Lussier, Beauregard, Proulx, & Nicole, 2005). The analyses, however, like too many studies on sexual offenders' criminal activity, were based on retrospective data.

### Sexual Offenders and Recidivism Studies

Several studies examining sexual offenders' recidivism rates have shown evidence in support of the generalization hypothesis. Examining the results of 30 studies together, Hanson et al. (2002) found, for an average follow-up of 46 months, general recidivism rates (i.e., any type of crime) of 28% for treated and 39% for untreated sexual aggressors following their release. These numbers were higher than those found for sexual recidivism, that is, 12 and 17% for treated and untreated participants respectively. In the meta-analysis of Hanson and Bussière (1998), sexual offenders' re-offending rate was 36% for general crime, 12% for violent crime and 13% for sexual crime (Hanson & Bussière, 1998). Results stemming from these studies have shown that sexual offenders' recidivism rates tended to be more important for nonsexual crime than to sexual crime. Despite this trend supporting the generalization hypothesis, results from between-group studies and within-group studies have provided mixed results in support of this hypothesis.

*Between-Group Studies.* According to the generalization hypothesis, we should not expect much difference between sexual offenders and nonsexual offenders as to general re-offending rates upon release. In a short-term follow-up study (i.e., 3 years), 68% of nonsexual offenders compared to 43% of sexual offenders were re-arrested (Langan, Schmitt, & Durose, 2003). In another study (Sample & Bray, 2003), using a follow-up period of 5 years, sexual offenders showed a general re-offending rate of 45%. This rate was somewhat lower than that observed for participants whose last offence was robbery (75%), burglary (66%), nonsexual assault (58%) or larceny (53%). As the follow-up period is extended, sexual offenders show a steady increase for general re-offending (Prentky, Knight, et al., 1997; Soothill & Gibbens, 1978; Prentky, Knight, et al., 1997; Prentky, Lee, et al., 1997). Despite this increase in general re-offending over time, it was shown that with a follow-up period between 15 and 30 years, 83.2% of nonsexual offenders re-offended compared to 62% of child molesters (Hanson, Scott & Steffy, 1995).

Therefore, these studies suggest that, following a sexual offence, general re-offending rates tend to be lower than for nonsexual offenders.

*Within-Group Studies.* It has been shown that aggressors of women (Hildebrand et al., 2004; Prentky et al., 1997; Proulx et al., 1997; Rice et al., 1990) and aggressors of children (Hanson et al., 1995; Prentky et al., 1997; Proulx et al., 1997; Rice et al., 1991) who recidivate do not restrict themselves to sexual crime. The meta-analysis of Hanson & Bussière (1998) showed that the rate of re-offending for any type of crime was 46%, while it was 22% for violent crime and 19% for sexual crime for aggressors of women. Similarly, for aggressors of children, the rate of reoffending for any type of crime was 37%, whereas it was 10% for violent crime and 13% for sexual crime. Furthermore, they suggested that aggressors of women may re-offend more often than aggressors of children, committing both sexual and nonsexual crimes, at least over a short follow-up period. On the other hand, the studies of Prentky, Knight, et al. (1997) and Prentky, Lee, et al. (1997) suggest that differences between aggressors of women and aggressors of children as to general re-offending rates vanished when followed over a period of up to 25 years. These results seemed to be attributable to the fact that child molesters remained at risk of sexual recidivism for a longer period than aggressors of women. Unfortunately, the authors did not present recidivism rates for specific nonsexual crimes over the follow-up period.

#### Prospective Longitudinal Studies

Soothill et al. (2000) looked at the participation rate in various crime types retrospectively and prospectively over a 32-year period. Their results showed much generality in the offending behavior of sexual offenders during that period. For those convicted of a sexual crime against a female (i.e., child, adolescent, adult), participation in property crime was more important than participation in nonsexual violence and sexual crime. For those convicted of a sexual crime against a male (i.e., child, adolescent, adult), participation in property and sexual crime tended to be equivalent, whereas participation in violent crime was much lower. Furthermore, those convicted of a heterosexual offence were more likely

to be convicted for nonsexual violent and property crimes than those convicted of a homosexual crime. Among the latter group, those convicted of an indecent assault were more likely to be reconvicted for sexual offences than the other type of offenders. If this study found much generality in the offending pattern, it also showed, congruent with results from the Lussier, LeBlanc, and Proulx (2005) study that the degree of generality can vary across types of sexual offender.

This generality in offending behavior may overestimate the risk of sexual crime by suggesting that it occurs in a random fashion during the criminal career. Results from prospective longitudinal studies have shown that sexual crimes are rare events present in only a minority of criminal careers. In the birth cohort of the Copenhagen study, 0.2% of offenders were arrested for rape by age 30 (Guttridge, Gabrielli, Mednick, & Van Dusen, 1983). In the Montreal longitudinal study on the criminal activity of the wards of the court, the participation rate in sexual crime in young adulthood was 2% (LeBlanc & Fr6chette, 1989). Using the Gluecks data on the development of the criminal activity in a large sample of delinquents, Cline (1980) showed that the participation rate in sexual offences was 1.6% in middle to late adolescence (16-20 years old), 2.4% in young adulthood (21-25-years old) and 2.6% in the late twenties (26-30-years old). In the Cambridge longitudinal study of 411 males in a working-class area of South London, up to age 40, 10 individuals were convicted for sex offences (Farrington, 2001). If sexual crimes occur in a minority of criminal careers, they tend, however, to be highly clustered in a particular type of criminal trajectory. In the two Philadelphia birth cohort studies, chronic offenders (i.e., five or more arrests), who constituted about 7% of each their sample, accounted for more than 70% of all arrests for rape during adolescence (Tracy, Wolfgang, & Figlio, 1990). Because these studies used the legal definition of rape, these numbers are more likely to characterize sexual offenders of peers and adult women. In fact, similar numbers were reported by the longitudinal study of Moffitt, Caspi, Harrington and Milne (2002), indicating that by age 26, 10% of their cohort, defined as long-term persistent offenders (i.e., early childhood onset of behavior problems and persistence through adolescence), was responsible for 62% of convictions of sexual and physical violence against women.

These results suggest then, that as the frequency of general crime increases, the risk of committing a sexual crime is enhanced. To our knowledge, however, no study has published similar data for sexual crimes against children.

#### Summary of the Specialization and Generality Hypotheses

Several studies have found evidence supporting the generality hypothesis of the offending behavior of sexual offenders. Prior criminal records and recidivism measures have shown that sex offenders do not restrict themselves to sexual crimes. In fact, this type of crime constitutes a relatively small proportion of their criminal activity and their criminal repertoire. Furthermore, retrospective studies have shown much covariance between frequency of sexual crimes and nonsexual crimes, at least for sex offenders against women. This observation is congruent with prospective studies showing that the likelihood of committing a sexual crime increases as general offending becomes frequent and chronic. However, supporters of the generality hypothesis have not addressed between-group and within-group differences on these various aspects of sexual offenders' offending behavior. Compared to nonsexual offenders, it appears that if their general re-offending rate is lower, sex offenders show an increased risk of committing a sexual crime as their next offence. This likelihood of committing another sex crime is higher for sexual recidivists compared to first-time sexual offenders. It is also higher for individuals having committed a sexual crime against a child, more specifically for homosexual and extrafamilial child molesters. Not only is a child molesters' sexual recidivism rate higher, but it also remains relatively constant over a long follow-up period. It is not surprising then, that their criminal repertoire tends to include a more important proportion of sexual crimes. The fact that most sexual offenders do not restrict themselves to sexual crimes does not preclude some form of specificity in their offending behavior.

It is hard to draw firm conclusions on the level of specialization, since most studies have been based on official measures of recidivism. Indeed, most of the studies reviewed here are based on official data that can influence the level of specialization found. For example, the practice of recording only the



most serious offence of a crime event does not allow appreciating the full extent of the criminal activity while plea-bargaining causes some sexual crimes to be recorded as nonsexual offences. Unfortunately, few studies have used self-reported measures of crime. Results of these studies with sample of juvenile (Jacobs, Kennedy, & Meyer, 1997; Zolondek, Abel, Northey, & Jordan, 2001) and adult sex offenders (Weinrott & Saylor, 1991) provide further empirical evidence that sexual offenders' antisocial behavior tend to be diversified. Although self-reported measures have their own methodological limitations (Junger-Tas & Marshall, 1999), used in combination of official data, they could provide a more complete picture by including those crimes that do not come to the attention of authorities. Further, measures of recidivism only consider two consecutive crimes without taking into account the whole criminal activity through the life-course. Yet, offending may not be consistently specialized over time, especially if factors linked specifically to that particular crime type change over time (Farrington et al., 1988). Hence, it is possible that different results might have been observed had these studies taken into account not only the next offence, but all offences, prior to and subsequent to the sexual crime. Only the study of Soothill et al. (2000) pursued this approach and found evidence for both generality and specialization in the offending pattern of sexual offenders.

#### Generality and Specialization: One or Two Dimensions?

Researchers have approached generality and specialization in the offending behavior of sexual offenders in a one-dimensional fashion. Indeed, generality and specialization have been described as opposite ends of a single dimension. In fact, researchers have not clearly defined criteria permitting the distinction between generalization and specialization. Thus, it is not surprising that similar results have been interpreted differently between researchers depending on whether they saw the glass as half full or half empty. The investigation of the generality and specialization of sexual offenders' criminal activity has become an empirical quest for which more sophisticated statistical tools are continuously introduced. The lack of theoretical assumptions and clearly defined criteria for both generality and

specialization is partly responsible for the controversy surrounding the interpretation of results that have been observed over the years.

Actually, as our review of the scientific literature has shown, there are empirical findings supporting both the generality and the specialization hypothesis. These results are not as controversial as they may first appear. It is reasonable to think that researchers examining the generality and specialization hypotheses have been measuring two different things. On one side, recidivism studies have shown that sexual offenders tend to show a higher likelihood of committing another sexual crime. On the other side, studies looking at the generality hypothesis based mainly on participation argued that sexual offenders do not restrict themselves to one particular type of crime. These approaches, however, provide only a snapshot of criminal activity over time. Recidivism and participation are generic descriptors which do not recognize the dynamic nature of criminal activity over time. In fact, both of these approaches do not acknowledge the possibility that generality and specialization can co-occur within the same criminal career (Loeber & Waller, 1988). Moreover, previous studies have not recognized the possibility that generalization and specialization are two distinct processes characterizing the development of offending over time. Statistical analyses and methodological frameworks used previously did not allow researchers to observe that possibility.

#### Developmental Criminology and Sexual Offending

Developmental criminology is an emerging paradigm interested in the understanding of the stability and change in offending over time (Loeber & Stouthamer-Loeber, 1996). Since its introduction to the field of criminology (Loeber & LeBlanc, 1990), the developmental approach has been focused on two areas of research. The first area is concerned with the investigation of factors that precede and co-occur with antisocial behavior and have an effect on its course. Developmental criminologists argue that different factors are associated with antisocial behavior across life-course. For example, different set of factors might explain why an individual start offending in childhood compared to those who start in adolescence (Moffitt, 1993). If risk factors can change over time, so does offending. The second area of

research is thus concerned with the development and dynamics of offending with age. Until recently, criminologists had not recognized that behavior problems, juvenile delinquency and adult criminality and their different manifestations are part of a general syndrome of deviance (Moffitt, 1993; Patterson, 1993). However, numerous empirical studies have shown the presence of this syndrome that can manifest itself differently across time and situations (For a review; LeBlanc & Bouthillier, 2003). Although they share a common etiology, they also have specific causes and correlates. Yet, criminal career researchers have traditionally focused on static descriptors of criminal offending, such as participation, frequency, variety. Such an approach does not take into account within individual qualitative and quantitative changes in offending over time. According to developmental criminologists, these changes are hierarchical and ordered, developing from a state of being generalized and unspecific and becoming more patterned as the offender gets older (LeBlanc & Loeber, 1998; Loeber & LeBlanc, 1990).

The course of offending has been describing as presenting three distinct phases: activation, aggravation, and desistance. Activation refers to the way the development of criminal activity, once it has begun, tends to persist, becomes frequent, and diversifies (LeBlanc & Fréchette, 1989). It has been observed in longitudinal studies that the mean age of onset of official offending is about 14 years old for juvenile delinquents (LeBlanc & Loeber, 1998). Because of the right-censoring of data<sup>2</sup>, the mean age of onset increases as the follow-up period of a cohort is extended in adulthood. In the Cambridge longitudinal study, up to age 40, the mean age of onset of the sample was about 18-years old (Farrington, 2003). This situation underlines the fact that substantial proportion of official offending starts in adulthood. According to a recent review of the scientific literature, it's about half of adult offenders (Eggleston & Laub, 2002). Yet, numerous studies have shown that an early age of onset is related to continuity in offending, a high frequency of crime committed and a more diversified criminal

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<sup>2</sup> In longitudinal study, right-hand censoring signifies that the observations are cut-off at a particular age. Therefore, if the follow-up period would be extended, some individuals might start offending.

repertoire (LeBlanc & Fr chette, 1989; Piquero, Paternoster, Brame, Mazerolle, & Dean, 1999; Tracy et al., 1990). These relationships have been observed using both self-reported and official crime data.

Furthermore, early onset of general criminal behavior is related to violent offending. In the Dunedin longitudinal study, 38% of individuals having an onset of antisocial behavior in childhood that persisted through adolescence had a conviction for a violent crime (Moffitt et al., 2002). On the other hand, 14% of those whose onset was in adolescence had a conviction for a violent crime, compared with 0% who lacked evidence of antisocial behavior both in childhood and adolescence. Taken together, these results indicate that an early onset of delinquency is a risk marker for future chronic and violent offending.

Aggravation characterizes an escalation, which, according to LeBlanc & Fr chette (1989) refers to: “the appearance of a sequence of diverse forms of delinquent activities that go from minors infractions to the most serious crimes against the person as the delinquent increases with age” (p. 18). A first generation of studies, using mostly transition matrices, found important evidence of stability and random switching in offending (For a review see, Cohen, 1986). These studies, however, were plagued by methodological limitations that did not allow researchers to draw firm conclusions as to the presence of escalation in offending. Among other things, as noted by LeBlanc (2002), these studies: (1) relied on official data; (2) used very broad categories such property crimes and crimes against the person; (3) did not study the full spectrum of antisocial, deviant behaviors. More recent longitudinal investigations using a developmental approach showed an orderly sequence of ages of onset for different types of problem behaviors (Loeber, 1990), delinquent behaviors (LeBlanc & Fr chette, 1989) and sexually deviant behaviors (Abel, Osborn, & Twigg, 1993). In a large scale study of self-reported data, Elliott (1994) showed evidence of a developmental progression from minor delinquency to alcohol and marijuana use, followed by serious delinquency (e.g., aggravated assault, robbery, and rape) and, finally, polydrug use. The studies underline some continuity between different behavioral manifestations of deviance. Furthermore, while these investigations suggest an orderly sequence of qualitative changes over time, only a minority of individuals goes through all the sequence.

Desistance refers to the process by which frequency and variety tend to decrease and seriousness tends to decline or reach a plateau (LeBlanc & Fréchette, 1989). According to developmental criminologists, one important component of this process is an increased tendency toward specialization. Since the work of Wolfgang, Figlio, and Sellin (1972), a long tradition of empirical research has verified the specialization hypothesis in offending behavior. Indeed, this hypothesis has been examined using various samples (i.e., community sample, sample of offenders), types of data (i.e., longitudinal, cross-sectional), measures of crime (i.e., official, self-report), and offence classification (for reviews, see Cohen, 1986; LeBlanc & Fréchette, 1989; Piquero et al., 2003). These data were mostly analyzed using transition matrices and Markov chains. In spite of these various frameworks, the conclusion is similar across studies, that is, offenders are more prone to switching rather than repeating the same type of offence. For Gottfredson and Hirschi (1990), this lack of specialization reflects a propensity to engage in a variety of criminal behaviors. They also recognize that this propensity tends to decline naturally with age, as suggested by the age-crime curve. Consequently, as noted by Paternoster, Brame, Piquero, and Dean (1998), if this general propensity to offend declines over time, a greater level of specialization should be observed as offenders get older. Results suggest that the tendency to switch crimes is more important in adolescence rather than adulthood (Cohen, 1986). Furthermore, studies have shown that as offenders get older, especially in their thirties and forties, frequency tends to decrease, while desistance from some crime-types occurs, thus showing evidence of a more specialized criminal repertoire (Piquero et al., 2003; Piquero et al., 1999). Yet, it is difficult to generalize these results to sexual offenders in adulthood, since the bulk of research on crime specialization has been conducted on offending behavior during adolescence.

While much of the research examining these processes so far has been conducted with samples of nonsexual offenders, it is reasonable to think that activation, aggravation and desistance could help shedding some lights on the developmental course of offending in sexual offenders. Developmental criminology can help to better understand the empirical findings surrounding the study of the offending

behavior of sex offenders. Generalization can be described as being part of the activation process where the offending behavior becomes more diversified. The process of diversification refers to the accumulation of diverse criminal, antisocial behaviors over time. Results provided by supporters of the generality hypothesis, using measures of participation and variety, suggest that the diversification process is indeed present to different degrees across types of sexual offender. However, if participation and variety measures can show the extent to which individuals have accumulated various crime types, it does not provide an account of the actual stage of their offending pattern. This problem limits the understanding of the developmental course of offending while reducing the accuracy of predicting future criminal activity. On the other hand, specialization is part of the desistance process where criminal activity, up to a certain point, becomes more restricted over time in favor of crimes which may be preferred or may be more profitable to the offender. Previous recidivism studies do not provide a good measure of specialization as they mixed individuals for whom the offending pattern might still be in the activation process with those for whom it might be in the desistance process. Previous studies did not take into account the presence of these various processes of the development of offending which might have led confounding results.

### Conclusion

Various penal, legal and clinical measures have been put forward to prevent sexual offenders from re-offending sexually. These specific measures were based on the assumption that sexual offenders specialize in sexual crimes (Simon, 1997; Simon, 2000). Consequently, this differential approach assumed that only one criminal trajectory characterizes their offending pattern. As it was highlighted by Pallone (2003), this situation created a taxonomic trap, confining every individual having committed a sexual offence to a single category. Researchers within the field have long recognized the heterogeneity characterizing sexual offenders. This heterogeneity, however, has only been acknowledged for one dimension of the criminal phenomenon, the criminal event. However, the heterogeneity of offending patterns has not yet been fully investigated. As this study's review of the empirical findings show,

sexual offenders' criminal behavior is characterized by a certain tendency to specialize in sexual crime over time against the backdrop of much versatility. Developmental criminology provides an interesting framework to better understand the development of the offending of sexual offenders. To date, most studies have been based on between-group and within-group analyses where the individual has not been the focus of the analysis. No study to date has investigated within-individual changes in offending over time, which could help to disentangle the generalization and specialization processes in sexual aggressors. This can only be achieved using repeated measures of criminal activity through life-course. Such studies need to be undertaken in order to better understand the developmental course of offending in sexual offenders, as well as the factors linked to it. This avenue would provide a more fruitful approach which could lead to the development of specific risk assessment and treatment modalities according to different criminal activity patterns.

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Table 1. Participation of Sexual Offenders in Three Types of Criminal Behavior According to Prior Official Records

Studies	Sample characteristics	n	Measure	Property crime (%)	Violent crime (%)	Sexual crime (%)
<b>Aggressors of women</b>						
Gebhard et al. (1964)	Prison and hospital sample	140	B	39	14	44
McCaldron (1967)	Sample of individuals incarcerated in a federal penitentiary	30	B	40	10	19
Amir (1971)	Cases of forcible rape listed by the police having occurred in Philadelphia between 1958-1960	637	A	39	17	17 <sup>a</sup>
Adler (1984)	Prison sample	193	B	28	9	3 <sup>b</sup>
Grunfeld and Noreik (1986)	A sample of first-time sexual offenders convicted in Norway between 1970-1974	83	B	45	9	-
Bard et al. (1987)	Individuals in a treatment centre for repetitive/aggressive sex offenders	107	?	93	45	30
Davies, Wittebrood, and Jackson (1997)	Stranger rapists identified through police records	2010	B	73 <sup>c</sup>	50	32
Soothill et al. (2002)	Includes participants having been convicted of rape or serious indecent assault for the first-time between 1995-1997	1057	B	47 <sup>c</sup>	32	5 <sup>d</sup>
Smallbone et al. (2003)	Sample of incarcerated sexual offenders in a treatment program	33	B	54	54	24
<b>Aggressors of children</b>						
Gebhard et al. (1964)	Prison and hospital sample. Participants can be in more than one offender category	199	B	36	6	40
	Heterosexual not having used violence					
	Heterosexual having used violence	25	B	35	15	53
	Homosexual	96	B	29	4	50
	Intrafamilial	56	B	31	8	36
McCaldron (1967)	Sample of individuals incarcerated in a federal penitentiary	25	B	23	12	40
Gibbens, Soothill and Way (1981)	Criminal record of heterosexual child molesters having been charged for that sex offence either in 1951 or 1961	110	B	28 <sup>c</sup>	5	11
Grunfeld and Noreik (1986)	A sample of first-time sexual offenders convicted in Norway between 1970-1974	279	B	30	4	-
Bard et al. (1987)	Individuals in a treatment centre for repetitive/aggressive sex offenders	68	?	81	38	31
Hanson et al. (1995)	A sample of incarcerated child molesters in a provincial penitentiary	191	A	40	13	42
Soothill et al. (2000)	A sample of individuals having been convicted of unlawful sexual intercourse with a girls under 16 in 1973. Based on both retrospective and prospective data over a 32 year period	735	B	65 <sup>c</sup>	31	19
Smallbone et al. (2003)	Sample of incarcerated sexual offenders in a treatment program	29	B	56	38	31
	Extrafamilial					
	Intrafamilial	26	B	11	8	15
Parkinson, Brane, Piquero and Dean (2004)	Criminal record of individuals whose victims were referred to child protection units	30	B	50	27	21

Note. A = Arrest/Charge; B = Conviction.

<sup>a</sup>Does not include prior arrests for sex offences other than rape, for which 3% of the sample were arrested.

<sup>b</sup>Does not include prior conviction for sex offences other than rape, for which 2% of the sample were convicted.

<sup>c</sup>They did not produce an aggregate participation rate for the whole property crime category. Hence, numbers reported here include only theft.

<sup>d</sup>This sample included first-time serious sexual offenders. Therefore, this sexual offence category includes sex crimes other than rape or serious indecent assault.