OFFENDER RISK ASSESSMENT

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EXECUTIVE SUMMARY

When a federal offender commits a violent or serious crime after being released from a correctional facility, the ability of justice officials to assess and manage the risk posed by offenders is called into question. Risk assessment is performed by the Correctional Service of Canada and the National Parole Board to reduce the likelihood of this outcome. On the basis of risk assessments, high-risk offenders can be kept in custody for longer periods of time and, once released, may be supervised more closely than low-risk offenders. And individuals who have committed a series of violent offences may be declared dangerous offenders and incarcerated indefinitely. Risk assessment plays a crucial role in dangerous offender proceedings. While the Canadian criminal justice system relies heavily on predictions of risk, these predictions are inherently error prone. There are no 'laws' of behaviour that can be applied to a set of circumstances to determine the behavioural outcome that will follow. Criminal behaviour, in particular, is motivated and supported by an unquantifiable number of factors; therefore, to assess an individual as 'high risk' is not to say that he or she will definitely recidivate. Despite its shortcomings, risk assessment can, to a certain extent, differentiate offenders who pose a significant risk for re-offending in the future from those who are likely to refrain from committing future offences.

Formal methods of assessing risk can be categorized as either actuarial or clinical. Actuarial methods require the collection of a large amount of historical data which can indicate whether the offender is likely to re-offend. Risk factors measured by actuarial tools can be static (unchangeable) or dynamic (changeable). For instance, an actuarial risk prediction tool may measure number of prior convictions, age at the time of the offence and the offender's relationship to the victim, all static factors, in addition to such dynamic factors as response to treatment and criminal association. Clinical assessments are based on the professional opinions of psychologists and psychiatrists, who take a more holistic approach to predicting whether an offender will re-offend. Clinicians may consider personality traits, mental illness, as well as biological, social and psychological factors that are related to offending.

In Canada, the Correctional Service of Canada utilizes a number of actuarial risk prediction tools that guide the security classification, treatment programming and release planning for federal inmates. The National Parole Board relies on the actuarial assessments made by corrections workers and may also take into consideration the clinical assessments of mental health professionals. Canada is considered one of the world leaders in risk prediction and a number of new prediction tools have recently been developed by Canadian researchers to improve the assess and manage the risk posed by sex offenders. While all offenders are assessed upon intake at a federal penitentiary and subsequently when being considered for release, for a select group of offenders, risk assessment may be required by the court before sentencing. If an individual has committed a serious violent offence, and "constitutes a threat to the life, safety or physical or mental well-being of other persons" (section 753(1), Criminal Code of Canada), the Crown can make a Dangerous Offender application to the court. A hearing is conducted, and the court hears evidence as to the offender's dangerousness, including risk assessments by trained professionals.

No risk prediction process is highly accurate. Error occurs in the risk assessment process when an

offender deemed high-risk is released and does not recidivate (referred to as a 'false positive')or when an offender classified as low-risk re-offends after release (a 'false negative'). To improve the accuracy of risk prediction, several suggestions have been put forth by researchers, clinicians and justice policy makers. The combined use of actuarial and clinical assessments may provide a greater degree of accuracy than one type of assessment used in isolation. Further, in determining risk, both static and dynamic factors should be taken into consideration - a number of risk assessment tools measure only unchangeable historical data. Looking at variables that may influence future behaviour that are subject to change, in addition to static factors, allows justice workers to better assess the level of risk posed by an individual. Finally, the assessment of sex offenders using existing methods is highly inaccurate. New scales to predict risk posed by sex offenders have recently been developed by Canadian researchers and could be introduced as tools for use by the Correctional Service of Canada if their validity is established.

The fact of the matter remains that, even with improvements, risk assessment will continue to be educated guesswork. The implications of a risk assessment to an offender are serious and in Canada, could even result in incarceration for an indefinite period. The use of risk assessment to deprive an individual of his or her liberty, based on future conduct, is an issue that needs to be addressed. The public demands to be protected from individuals who will commit more offences, yet the justice system cannot accurately predict whether or not an offender will recidivate. Is it right, then, to incarcerate a person for a longer time than can be justified by their offence, to ensure that he or she does not recidivate? Risk prediction is fallible and so the principle of proportionality- that the severity of a sentence should fit the seriousness of the crime- must not be forgotten.

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INTRODUCTION

When people come into contact with the criminal justice system, they pass through several stages of processing. At each stage, an individual's risk of re-offending is assessed by criminal justice workers. Risk assessments are performed by justice professionals on a daily basis: pre-trial, before sentencing, when determining security level in custody, prior to release, and after breaches or critical incidents occur (Hart, 1995). These assessments can be either formal or informal in nature (Milner & Campbell, 1995). Risk assessment is fundamental to the criminal justice process because it is a means for distinguishing between offenders who are likely to re-offend and those who are at a lower risk for recidivism (Solicitor General Canada, 1998a).

There has been a lot of controversy about the accuracy of risk assessments. Risk assessments are essentially predictions of future behaviour and are subject to error. The result of a risk assessment has serious implications for both the assessed individual and society: for the individual offender, the assessment will decide his or her freedom; for society, it may determine whether a potentially dangerous person will be released into the community. The community requires protection, but at what expense? Clearly, risk prediction has a place in the justice process, but predictions cannot be taken as fact. Unfortunately, the error inherent in the risk prediction process often results in longer periods of incarceration for certain offenders who are found to be high-risk, but who, when released, do not commit further crimes.

METHODS OF ASSESSING RISK

While there are many different methods of risk assessment, they tend to fall into two broad categories: clinical and actuarial (Milner & Campbell, 1995; Grubin, 1999). Clinical prediction requires the observation of an offender by a psychiatrists or a psychologist; clinicians assess risk based on their professional training, theoretical knowledge and experience with offenders. Actuarial (or statistical) prediction, "involves predicting an individual's behavior on the basis of how others have acted in similar situations...or an individual's similarity to members of violent groups" (Milner & Campbell, 1995, p. 21). Actuarial prediction involves the use of statistical models and risk factor tools. The following is a brief description of these two assessment methods, accompanied by a discussion of the accuracy of each.

Clinical Risk Assessment

A clinical assessment typically involves a judgment by a mental health professional concerning the risk a specific individual poses. The clinician, usually a forensic psychologist or psychiatrist, interviews and/or observes the individual. The clinician may use rating schemes or checklists developed by other professionals. Any available information about the offender's personality and behaviour and the details of the crime itself are considered. The risk factors used in a clinical assessment are different for each person assessed and can change over time. They include mental disabilities, attitudes, behaviour, personal history and social skills (Mann, 1995; Sutton, 1994;

Litwack, Kirschner, & Wack, 1993). These individual characteristics, taken as a whole, give clinicians a picture of the person in question, and a decision about the potential harm he or she may pose is then made. The Supreme Courts of both the United States and Canada have recognized the clinical method as a constitutionally valid measure for assessing risk (Litwack, et al., 1993; Gordon & Verdun-Jones, 1986).

While clinical risk assessment has attained legal recognition, the ability to accurately distinguish offenders who will recidivate from those who will not, using clinical methods, is questionable. When assessing an individual, clinicians often fail to take into account risk factors such as age, gender and criminal history. Belfrage (1998) conducted a study of forensic psychiatrists to determine to what extent several factors (the crime committed, psychiatric diagnosis, age and prior offences) influenced institutionalized offenders' risk assessments. It was found that only the type of crime committed differentiated offenders classified as 'high-risk' from those who were considered 'low-risk' (Belfrage, 1998). Other studies have shown that, when given enough information, laypersons making clinical predictions are as accurate as clinicians (Menzies, Webster, McMain, Staley, & Scaglione, 1994), and in some cases, make better predictions. Menzies, et al. (1994) studied the accuracy of clinician and layperson predictions of dangerousness among Metropolitan Toronto Forensic Service (METFORS) patients using the Dangerous Behaviour Rating Scale (DBRS). Three outcome measures were used: violent behaviour, criminal behaviour and general incidents. Menzies, et al. (1994, p. 19) found that clinicians were no better than laypersons at assessing risk; in fact, laypersons were better at using the DBRS than clinicians.

Further, studies indicate that clinicians often come to different conclusions after assessing the same individual (Menzies, et al., 1994; Webster, Dickens, & Addario, 1985). Webster, et al. (1985) cite a study by Quinsey and Maguire on inter-rater reliability (clinician agreement) which found that clinicians made different predictions, even after they discussed cases with one another. Webster, et al. (1985) believe differences in clinical opinion may be due to a lack of precision in clinician training. Such findings question the notion of clinical 'expertise' in dangerousness prediction, suggesting that the assessment process is arbitrary, and that the fate of an offender is dependant on who conducts the assessment.

Actuarial Risk Assessment

When an offender is assessed using an actuarial tool, his particular characteristics are inventoried and his risk is determined by the extent to which he possesses various risk factors associated with recidivism. The information considered in the assessment process, drawn from an institutional intake report and case files, typically includes the offender's education level, employment status, known or suspected mental disabilities, in addition to the individual's criminal history. This information will later aid in assessing the risk posed by offenders being considered for release. For example, if a certain characteristic common to those who recidivate is found in a potential parolee, that person's risk is judged greater than one who does not display the trait. Similarly, individuals who display characteristics common to non-recidivists will be considered lower risk. Actuarial assessments have

the advantage of providing "offenders with more concrete information on their status, making the system appear less arbitrary" (Serin, 1993, p. 24).

Actuarial risk assessment focusses primarily on static (unchangeable) factors that influence recidivism. Several studies have found that the static risk factor with the strongest influence on general recidivism (all types of criminal offences) is prior contact with the criminal justice or mental health systems (Gottfredson & Gottfredson, 1994; Shaffer, Waters, & Adams, 1994). Violent offence recidivism is best predicted by prior violent offences, mental illness, and a history of substance abuse (Limandri & Sheridan, 1995). For sex offenders, sexual offence recidivism is more common among offenders who have prior sexual offences, one or more boy victims, victims who are not family members, and who have shown a sexual preference for children (Hanson & Bussière, 1996a; Hanson & Bussière, 1996b; Hanson, 1997). Sex offenders who recidivate by committing non-sexual violent offences are typically young, of a minority race and are unmarried. Static factors are relatively easy to code, as no rater judgement is necessary, and they are widely used in actuarial risk assessment tools. However, an inventory of static variables alone does not provide a clear picture of risk because these factors will never change, yet the probability of the offender recidivating can change. Offenders are given treatment in correctional facilities to reduce the likelihood of future offending; if an offender's risk for re-offending is lessened through treatment, static factor inventory will not measure this change in risk.

Dynamic factors have been found to predict recidivism as well as, or better than, static factors (Gendreau et al., 1996) and are also measured by several actuarial risk assessment tools. It is knowledge of dynamic factors that is necessary in order to assess changes in an offender's risk level (Hanson & Bussière, 1996a). Through participation in rehabilitative programming, an offender may become less likely to recidivate, but corrections and parole workers would not be able to measure this change unless they assessed the offender's risk based on changeable factors. Dynamic factors associated with general recidivism include antisocial personality, social achievement, interpersonal conflict and substance abuse (Gendreau et al., 1996). With respect to sex offenders, a study conducted by Hanson and Harris (1998) showed that poor social support, an antisocial lifestyle and a tolerant attitude toward sexual assault were the factors that had the strongest relationship with sex offence recidivism. Interestingly, these researchers also found that more recidivists than non-recidivists were given anti-androgen therapy (Hanson & Harris, 1998). Barbaree, Seto and Maric (1996), in a study of sex offenders participating in an Ontario treatment program, found that antisocial history and treatment behaviour were significant variables in conditional release failure.

There are numerous actuarial scales that can be used to assess risk. Some notable examples are the Violence Risk Appraisal Guide (VRAG), the Statistical Information on Recidivism (SIR) scale (Nuffield, 1982), Static 99 and the Sex Offender Need Assessment Rating (SONAR). A brief description of each follows:

- The VRAG (Webster, Harris, Rice, Cormier & Quinsey, 1994), initially developed to assess recidivism among mentally disturbed offenders, considers

12 items including personality disorder, schizophrenia, age, marital status and criminal record. VRAG was found to be useful in assessing risk posed by sex offenders as well; however, high VRAG scores are strongly related to violent, but not sexual, recidivism among sex offenders (Rice & Harris, 1997; Wakefield & Underwager, 1998).

- The SIR scale (Nuffield, 1982) inventories static factors including age, marital status, and a number of factors related to the offender's criminal history. Scores on the SIR scale indicate whether an offender is high or low risk for recidivism. Bonta, Harman, Hann and Cormier (1996) found that "the SIR scale continued to show a predictive association with general recidivism" (p. 73), but had only a modest association with violent and sexual recidivism. The SIR does not consider dynamic variables, so its use is limited in terms of managing offender risk (Bonta, et al., 1996).

- Static 99 (Hanson & Thornton, 1999) is an actuarial tool developed to improve the accuracy of risk prediction for sex offenders previously convicted of at least one sexual offence. Static 99 considers ten static factors that are related to sexual recidivism, including: marital status, age, prior sex offences, prior sentencing dates, male victims and unrelated victims. The Static 99 scale has shown moderate predictive accuracy for sexual recidivism and violent recidivism among sex offenders (Hanson & Thornton, 1999).

- Hanson and Harris (2000) have developed an actuarial tool, called the SONAR, that may be used in conjunction with the other actuarial tools to assess risk for sex offenders. The SONAR measures specifically the change in risk levels throughout the course of an offender's sentence by focussing on dynamic factors related to recidivism. The scale considers five stable factors, including intimacy deficits, social influences, tolerance toward sexual offending, and sexual and general self-regulation. Four acute factors (substance abuse, anger, victim access and negative mood) are also measured. The accuracy of the SONAR in risk assessment has yet to be demonstrated, but because the risk factors measured by the tool are found to be related to sexual recidivism in other studies, it is a reasonable suggestion that the SONAR be used to complement actuarial tools that look at static factors (Hanson & Harris, 2000).

Unfortunately, neither the actuarial nor clinical method of risk prediction has proven particularly accurate, but each has its proponents arguing that one method is better than the other (Grubin, 1999). Howe (1994) has noted that several studies have shown actuarial judgments to be better than clinical judgments, but warns that the indicators on which actuarial assessments are based have not been sufficiently standardized. Gottfredson and Gottfredson (1994) found actuarial assessments to

be more effective than clinical assessments, but still regard the accuracy of actuarial methods to be modest.

RISK ASSESSMENT IN CANADA

Offender risk assessment is integral to the work of the Correctional Service of Canada and the National Parole Board (Solicitor General Canada, 1998a). Virtually all offenders are subject to assessment from the time until they enter a correctional facility until their release. Risk assessment influences an offender's security classification, the programming he will receive while incarcerated, his eligibility for temporary absences and his release date. For a small proportion of offenders, risk assessment may be necessary as part of the sentencing process if a dangerous offender application is made. Psychiatrists and other mental health professionals are typically involved in assessing the offender and providing the court with evidence of the offender's dangerousness. After an individual is found to be a dangerous offender under section 742 of the Criminal Code of Canada, he is incarcerated for an indefinite period of time. Risk assessment in dangerous offender proceedings is quite different from risk assessment performed by corrections and parole workers. In general, actuarial tools are used to determine risk level in incarcerated offenders; in dangerous offender proceedings, clinical predictions are presented to the court. Furthermore, the assessment of risk in a dangerous offender hearing has a greater impact on the future of the offender as he could face incarceration for up to life. Risk assessment done by corrections and parole workers may influence the length of time the individual spends in prison, but once the offender has finished serving his prison term, he must be released.

Risk Assessment in Corrections and Parole

In Canada, until the late 1980s, assessment of offender risk was largely an informal process. Decisions concerning an offender's security designation, treatment and release were made based on the best judgment of corrections officials and National Parole Board members. Today, the process is more formal and standardized. Correctional Service of Canada (CSC) uses several tools for risk assessment and new scales have been recently developed for future use in correctional risk management. The National Parole Board considers offenders' scores on a variety of statistical risk assessment measures compiled by corrections workers. The National Parole Board assesses the risk posed by each offender on a case by case basis, taking into account a number of factors other than just his risk scores, including his behaviour while in prison. In some cases, the opinion of psychologists or psychiatrists may be sought to determine the level of risk posed by the offender.

A number of tools are used by corrections and parole workers to assess risk: the Offender Intake Assessment (OIA) process, the Statistical Information on Recidivism (SIR) scale and the community risk/needs management scale. The OIA process, introduced in the early 1990s, is used to determine the risk level, programming needs and treatment responsiveness of the offender in order to establish a case plan. The OIA process involves a multi-disciplinary team approach which includes extensive information sharing. Commencing at an offender's sentencing, case managers compile all relevant

information about the offender from a number of sources including police, the court, victims, family and corrections workers (Solicitor General Canada, 1998a). When an offender is sentenced to a term in a federal penitentiary, he is given a rating of criminal risk based on the severity of the offence committed and his criminal history, his score on the Statistical Information on Recidivism (SIR) scale, and if the offence was sexual in nature, a sexual offence inventory is taken. Case needs are identified by the OIA covering seven basic need areas: employment, marital/family, associates/social interaction, substance abuse, community functioning, personal/emotional orientation and attitude. The CSC considers these seven basic needs (among others) to be a subset of offender risk. Psychological evaluations, staff observations and supplementary evaluations specific to specific needs that the offender has, such as alcohol use, are presented at a case conference of the multi-disciplinary OIA team members (Motiuk, 1997).

The SIR scale was introduced by the Correctional Service of Canada in 1988 as a risk assessment tool to be used in pre-release decision making (Cormier, 1997). Scores on the SIR scale now range from -27 (high-risk) to +30 (low-risk), and are determined by a checklist of 15 static factors:

1. Current offence
2. Age upon admission
3. Prior incarceration
4. Revocation of release
5. Escape
6. Security level
7. Age at initial adult conviction
8. Prior convictions for assault
9. Marital status
10. Risk interval since last offence
11. Number of dependents
12. Current sentence
13. Previous sex offence convictions
14. Previous break and enter convictions
15. Employment at arrest (Cormier, 1997)

The SIR is useful in predicting general recidivism, but is not able to assess risk for sexual or violent recidivism as strongly, and is not useful in the management of offender risk as it measures only unchangeable factors (Bonta, et al.,1996). The SIR shows only a slight degree of predictive accuracy with Aboriginal or female offenders (Cormier, 1997). Because of its limitations, the SIR scale is not typically used in isolation, but as part of the OIA process, which considers a number of other variables. The National Parole Board has recently adopted the SIR scale as a tool for determining risk for re-offending when determining release (Motiuk, 1997).

The Canadian parole system considers both actuarial and clinical risk assessments in release decision making. As mentioned previously, the National Parole Board has adopted the SIR as a means for

determining recidivism risk. If no SIR scores are available in the offender's file, the Parole Board may then tabulate a score. The National Parole Board members receive risk assessment training and are kept informed about recent developments in research in the area (Sutton, 1994). The training carries a social-psychology perspective and attributes behaviour to a mix of environmental and personal factors. Assessments are made by examining such things as the offender's behaviour history, immediate situation, outlook on life and social supports in the community. In some cases, the National Parole Board looks to psychologists or psychiatrists for advice and recommendations (Brown & O'Brien, 1993). The National Parole Board relies heavily on the recommendations of corrections staff, as CSC staff interact with the offender on a daily basis (Pepino, 1993).

The Community Risk/Needs Management Scale, introduced in 1990, combines measures of criminal history and recidivism risk with a comprehensive assessment of offenders' specific case needs, providing a tool for CSC parole officers to assess needs and risk on an ongoing basis (Motiuk, 1997). Some need areas assessed by the scale include employment, family supports, positive associations, behavioural and emotional stability, and drug or alcohol usage. For each area, the rater gives a rating of low, moderate or high need, based on his knowledge of the individual gained through an interview and a careful reading of the case file. The offender is given an overall case needs rating and to assess recidivism risk, the SIR scale is used. By looking at both risk and needs, it is possible that the Community Risk/Needs Management Scale can help focus community based intervention strategies that can keep released offenders from returning to prison (Motiuk, 1997).

Dangerous Offender Risk Assessment

Thus far, we have discussed methods and tools for risk assessment used by corrections officials, National Parole Board members and parole officers from the time the offender is sent to a penitentiary to his release on parole. However, for a select group of offenders, typically those with two or more violent offences, long-term risk assessment may come into play in the sentencing process. Part XXIV of the Criminal Code of Canada allows for the indeterminate sentencing of individuals found to be dangerous offenders. Any person convicted of a serious personal injury offence, as defined in section 752 of the Criminal Code, who constitutes a danger to the life, safety or well being of others may be subject to a dangerous offender application. The determination of dangerousness is based on evidence, establishing at least one of the following patterns of behaviour: unrestrained behaviour that is likely to cause danger; aggressive behaviour with indifference as to its consequences; or behaviour that is "of such a brutal nature" (s.753(a)(iii)) that ordinary standards of restraint will not control it. When an individual is convicted of a serious personal injury offence, but a sentence has yet to be passed, the court can remand the offender into custody to undergo risk assessment. The assessment must be performed before a dangerous offender hearing is held.

Assessments presented in dangerous offender hearings are predominantly clinical. One or more mental health professionals review the offender's case file and may interview or observe the individual before making the determination as to the offender's dangerousness. Various diagnostic tools for measuring personality, IQ, and mental health issues may be used during an interview; one common

tool is the Psychopathy Checklist-Revised (PCL-R) (Hare, 1991). The PCL-R sets out 20 characteristics common to psychopathic individuals, and each characteristic is rated on a scale from 0 to 2. A total score of 30 or more is a strong indicator of psychopathy. Psychopathic individuals are considered to be at a greater risk for dangerousness as, according to Hare:

> psychopaths are impulsive and sensation-seeking, and they readily violate social norms. The most obvious expressions of these predispositions involve criminality, substance abuse, and a failure to fulfil social obligations and responsibilities (1991, p. 3).

The PCL-R is not an objective scale. Objective, actuarial scales such as the Static 99 or the SIR do not require raters to make any judgements about various risk factors. The PCL-R, rather, is subjective because the rater cannot simply tally a score based on the presence or absence of certain factors; each characteristic considered by the PCL-R must be scored according to the clinician's professional opinion as to the severity of the trait. In addition to psychopathy, other personality disorders are often indicative of dangerousness, including antisocial personality disorder, which shows a moderate correlation with psychopathy, but is a separate diagnosis (Hare, 1991).

DISCUSSION

Risk assessments may yield statistically significant success rates, but they are unable to provide accurate predictions in a substantial portion of cases. According to Hanson and Thornton (1999), the predictive accuracy of professional risk assessments (both actuarial and clinical) is only slightly better than chance. False positives and false negatives are a concern in any assessment of risk. False positives are individuals judged to be high-risk, but who do not recidivate upon release. Alternatively, false negatives are those individuals judged to be low-risk who later re-offend. Bonta and Hanson (1995), in a study measuring the accuracy of the SIR scale, found that "the SIR demonstrated predictive validity but still made errors. For example, if we adopted a policy of incapacitating the poor risk category, the false positive rate would be 35.4%." Another study found that only one in three released mental health patients who were judged to be dangerous actually engaged in dangerous behaviour (Monahan, 1981, cited in Clark, Fisher, & McDougall, 1993).

For the most part, people are skeptical of predictions of future events, but the uncertainty and fear that accompany the release of potentially dangerous persons into the community leads to a reliance on risk assessments to help ease public concerns. It must be stressed that risk assessments only provide a probability or likelihood of recidivism for each offender. It is the responsibility of judges, corrections workers and parole officials to determine whether an individual's freedom should be denied based on the degree of risk for recidivism (Litwack, et al., 1993; Shaffer, et al., 1994). Low-risk offenders who are released may re-offend as well. This raises a difficult question: at what point does a person become so great a risk that his or her right to freedom is overridden by society's right to protection from a potentially dangerous person?

Compounding the problems associated with risk assessment, biases can enter into the assessment process. Though clinicians and corrections workers may strive to be objective and to keep biases from affecting their assessments, it is well known that any task undertaken by a person will be influenced by his or her perspective. For example, in their observations of hospital emergency room risk assessments, Coontz, Lidz and Mulvey found that "gender norms guide the assessment process" (1994, p. 375); violence is attributed to males more often than females, even though rates of violence in the emergency room measured in the study were the same for men and women. It has also been found that clinician's decisions are influenced by the appearance of the subject (Esses & Webster, 1988).

Despite the above problems, risk assessments can be improved. Actuarial prediction is generally regarded as the more accurate method of risk assessment (Milner & Campbell, 1995). Indeed, Gottfredson (1987, p. 36) reports that "in virtually every decision-making situation for which the issue has been studied, it has been found that statistically developed prediction devices outperform human judgments." Gottfredson (1987) identifies numerous reasons for the superiority of statistical predictions, ranging from human error and lack of attention to base rates of behaviour to inappropriate weighting of factors, including assigning weight to factors with no predictive value.

However, on their own, the clinical and actuarial models are both mediocre in their predictive ability. Thus, Milner and Campbell recommend using a combination of statistical and clinical expertise:

> Clinical expertise (appropriate academic, clinical, and legal training, knowledge of the risk literature), coupled with some form of statistical prediction, allows the greatest accuracy of prediction at the present time. (1995, p. 37)

Similarly, Litwack, et al. (1993) believe that a clinical assessment can be improved by a follow up actuarial evaluation of the individual. Specifically, once the clinical judgment is made, the person could be compared to the behaviours or backgrounds typically associated with high risk offenders. Alternatively, clinical information may be used to improve actuarial assessments (Serin, 1993; Gottfredson, 1987). Such secondary judgments may be of particular assistance in the assessment of borderline cases. Specifically, Litwack, et al. (1993) anticipate a decrease in the release of apparent non-risks who subsequently re-offend (false negatives). Thus, there is general agreement among risk assessment professionals that an increased number of factors considered by both clinical and actuarial methods lead to more accurate risk assessments (Clark, et al., 1993; Bjorkly, 1993; Shaffer, et al., 1994; Grubin, 1999). This leads us to question the exclusive use of clinical assessment in dangerous offender proceedings and the reliance on actuarial methods in risk assessment in corrections and parole decision making. By combining the predictive power of both clinical and actuarial methods, a more accurate determination of risk can be made in sentencing as well as in correctional risk management and release planning.

Another suggestion that has been made by a number of researchers is the need to consider both static and dynamic factors when predicting risk. By looking at static factors alone, the assumption that the person cannot and will not change their behaviour is implicitly made. Cormier (1997) points out

that the SIR scale, widely used by corrections and parole workers, "cannot provide targets for treatment interventions or for the possibility of changes in risk over time" (p. 6), and should be used in conjunction with other actuarial tools that can tap the dynamic factors that influence recidivism. In order to assess an individual's risk with the highest degree of accuracy possible, corrections officials and National Parole members must take into account the risk factors that may be reduced through rehabilitation efforts. This fact has been recognized by researchers developing actuarial tools. For instance, the Sex Offender Need Assessment Scale (SONAR) was developed to measure dynamic risk factors associated with recidivism among sex offenders. The SONAR can be used in conjunction with scores measuring static variables such as the Static 99 or the VRAG scales to provide a more accurate prediction of sex offender risk (Hanson & Harris, 2000).

Additionally, risk prediction can be improved by continuous research and development of new actuarial tools that can demonstrate a lower rate of false positives and negatives than current tools. To attain a higher degree of predictive accuracy, it may be necessary to develop tools to assess specific groups of people for specific types of risk. Research has shown that most actuarial tools are better at predicting risk for certain types of offenders than for others. The SIR, for example, has been found to predict general recidivism with moderate success, but is quite limited in assessing risk for female, Aboriginal or sex offenders. A number of assessment tools have recently been developed to predict re-offending for sex offenders (Hanson, 1997; Hanson & Harris, 2000; Hanson & Thornton, 1999), and further tools specifically designed for use with females and Aboriginals may also be needed.

Because risk assessments are not perfect, false positives and false negatives are unavoidable. It is obvious that false negatives can be minimized by incarcerating all individuals who display any dangerous traits; however, this would result in extremely high numbers of false positives (Webster, et al., 1985). On the other hand, attempting to reduce the number of false positives will lead to more false negatives. Error is inherent in the process because there is no way of knowing with certainty how an offender will behave when released.

There is an issue at the heart of the risk assessment debate that is much more complex than simply the accuracy of risk assessments. Specifically, this issue is how to balance the principle of proportionality with society's right to be protected from dangerous individuals. It has been suggested that the conflicting interests of individual freedom and the safety of society are most appropriately resolved in the judicial or legislative sphere (Monahan, cited in Brizer, 1989). Indeed, when a sentence is determined, the court considers an offender's risk. But after the offender has been sent to custody, it is the responsibility of corrections officials and Parole Board members to weigh the offender's rights against those of society. However, the Correctional Service of Canada and the National Parole Board are affected by political pressures to a greater extent than the judiciary, who are held to be 'impartial.' In the current political climate, it is reasonable to assume that public pressure to detain potentially dangerous individuals will result in more offenders being judged as high risk by corrections workers and Parole Board members, and kept in prison longer than warranted by the offence committed.

While the CSC and the National Parole Board have the power to extend an offender's stay in custody past the conditional release date (and even the statutory release date in certain cases), the judiciary has the greatest power to restrict the liberty of individuals who are deemed to be 'high-risk' or dangerous. With the Dangerous Offender provisions contained in section XXIV of the Criminal Code, an offender can be detained in a correctional facility for an indefinite period if he or she has a history of committing serious or violent offences and poses a threat to the safety of the public. Because risk assessment presented in a dangerous offender hearing is most crucial to the future of the offender and the safety of the public, we might expect that the accuracy of the assessments presented to the court would be higher than those performed in custody and thereafter. The reality is, however, that risk assessments presented to the court are typically performed by mental health professionals using subjective instruments such as the PCL-R.

Misjudgements made by psychologists and psychiatrists may result in an indefinite period of incarceration. This was recently illustrated in the case of Lisa Neve, a former prostitute from Edmonton, who in 1994 was found to be a dangerous offender by the Court of Queen's Bench of Alberta. In the reasons given for the decision, Justice Murray pointed to the assessments of four practising psychiatrists who read her case files and her personal diaries, in addition to the transcripts of her previous court appearances. All four psychiatrists, after examining the materials and interviewing Neve, concluded that she was a dangerous psychopath who suffered from anti-social personality disorder. Neve had been found guilty of robbing a prostitute using a weapon, and had previous convictions for uttering threats, assault, solicitation, break and enter, and other charges dating back to 1988. The court declared her to be a dangerous offender and she was placed in custody for an indefinite period. In 1999, Neve successfully appealed her sentence, and after spending 6 ½ years in prison, she was released. According to the Appeals Court, Justice Murray failed to take into account Neve's potential for rehabilitation and her troubling past (cited in "Former Dangerous Offender Freed," 1999). Further, Murray relied heavily on the opinions of mental health professionals and did not consider any actuarial assessments that would likely have shown Neve to pose only a moderate risk given that she had only 4 violent offences among the 22 prior convictions that she had amassed. This case is illustrative of the suggestion made by Skurka and Renzella (1998) that the judiciary typically do not question the legitimacy of the opinions of behavioural experts.

It is only ethical, given the present reliance upon assessments of risk in sentencing, security classification and release decision making, that assessment methods continue to be improved. Governments, as agents of control, have a responsibility to allocate sufficient funding to support extensive research into the assessment of risk. As Hart (1995) points out, risk assessments are done on a daily basis in corrections. Therefore, the only question is how to best conduct risk assessments. Ultimately, sound risk assessment procedures help to protect both public safety and the rights of offenders.

However, improving risk assessment should not be the central focus of researchers, according to Mathiesen (1998):

> Rather than continuing the effort at increasing the prediction accuracy by 2%, or rejoicing when the correlation coefficient increases from 0.34 to 0.36, and rather than seeing such increases as major scientific victories, penal researchers should now turn to the really critical issues: the enormous growth in the use of prisons,...the horrendously inhumane conditions under which prisoners live, and so on. (p. 468)

The point is, risk assessment is a fallible process and *always* will be - improvements to the process will never make risk assessment a highly accurate endeavour. Focussing on questions of risk and dangerousness has the potential to overshadow the fact that Canada has one of the highest rates of incarceration in the world (Solicitor General Canada, 1998b). Efforts must be made to reduce the burgeoning prison population in this country. Risk assessment has a significant role to play in decarceration efforts, but unfortunately in the justice process it is politically expedient to err on the side of caution, and keep inmates in custody as long as possible.

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