AN EMPIRICAL ANALYSIS OF THE RELATIONSHIPS AMONG ANTISOCIAL
ATTITUDES, THE USE OF TECHNIQUES OF NEUTRALIZATION, AND
CRIMINAL BEHAVIOUR

By

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Abstract

The present study examined the relationships among antisocial attitudes, the use of techniques of neutralization, and criminal behaviour. This was accomplished within the context of evaluating the effectiveness of the Counter-Point program in reducing its intermediate targets of change, and subsequently rates of recidivism. Data were collected from a sample of federally incarcerated male offenders released in the community. Results revealed significant post-program reductions in antisocial attitudes and neutralization. Neutralization failed to account for variability in rates of recidivism while assessments of antisocial attitudes significantly contributed to the prediction of suspensions and revocations. Notably, changes in antisocial attitudes made incremental contributions to the prediction of outcome. After controlling for pre-existing differences in criminogenic need, risk, and prior treatment, completion of Counter-Point predicted longer survival in the community. Early program drop-out was associated with significant increases in rates of recidivism following release. In spite of concerns relating to treatment attrition as well as fundamental responsivity issues, this study illustrated that Counter-Point is a clinically appropriate rehabilitative intervention. Findings are discussed in terms of the contribution that the antisocial attitudes and the neutralization constructs can make to the development of a better understanding of criminal behaviour, and to the delivery of effective correctional programs.

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INTRODUCTION

For a number of years, the efficient and effective managing of individuals who come into contact with the criminal justice system has been a concern for many people. Scholars from various disciplines have attempted to understand, predict, and influence the occurrence of criminal behaviour. Amongst other things, this interest has resulted in an increasing body of research concerning the predictors of criminal conduct and the development of appropriate intervention programs, and as such has contributed to a reduction in the social costs associated with crime and its processing.

This review of the literature will provide an overview of some of the most influential criminological theories, all of which have made a serious attempt to understand the causes of criminality, and accordingly, offer what they believe to be the solution to the negative consequences associated with criminal undertakings. In the process, the relative utility of these theoretical perspectives will be examined with reference to empirical and practical issues. Consequently, the principles of effective correctional practice, theoretically and empirically validated by research in the broad field of criminology, will be outlined.

The present study is conducted within the context of evaluating a unique correctional program, the Counter-Point program (Graham and Van Dieten, 1999), offered by the Correctional Service of Canada. As will be shown, this program was developed and implemented based upon some core correctional practices and a specific focus on the concept of antisocial attitudes. Not only has antisocial attitudes been repeatedly found by research to be one of the most important risk factors for criminal

behaviour (Andrews, Zinger, Hoge, Bonta, Gendreau and Cullen, 1990; Gendreau, Andrews, Goggin and Chanteloupe, 1992; Gendreau, Little and Goggin, 1996), but the construct has also represented a core component of many of the most prominent theories of criminal behaviour.

Theoretical Perspectives

From its beginning in the Freudian model of the structure of human personality, the psychodynamic perspective has acknowledged that different risk factors are correlated with criminality. According to Freud, in addition to the intense innate drive of the id, the variables that play a causal role in criminality are the superego strength representing internalized moral principles, or attitudes, values, and beliefs regarding rule violation, the self-regulation and problem-solving skills of the ego, and the facilitating and inhibiting aspects of the immediate environment (Andrews and Bonta, 1998).

Empirical evidence for the psychodynamic perspective has been provided by a survey conducted by Glueck and Glueck (1950), which validated the criminogenic function of not only situational and environmental, but also temperamental, attitudinal, and cognitive factors. Attitudinally, the Gluecks summarized male delinquents as being “hostile, defiant, suspicious, stubborn, adventurous, unconventional, [and] nonsubmissive to authority” (in Andrews and Bonta, 1998, p. 115). Therefore, within the psychodynamic perspective, the construct of antisocial attitudes has received both theoretical and empirical support.

Similarly, one of the most well-known and influential theory of criminal behaviour, the differential association theory (Sutherland, 1939), posits a relationship between criminality and attitudes. According to this theory, criminal behaviour is learned

through associations, principally within intimate social groups, and the learning includes techniques of committing the crime as well as the motives, drives, rationalizations, and attitudes supportive of criminal conduct. In differential association terms, attitudes represent expressions both favourable and unfavourable to violation of the law. It is hypothesized that criminal behaviour occurs in a situation reflecting an excess of definitions favourable to violation of the law over definitions unfavourable to violation of the law. Criminal behaviour is thus explained in the same way as any other kind of deliberate conduct.

Burgess and Akers (1966) reformulated the differential association theory by including the principle of operant conditioning. They suggested that criminal behaviour is an expression of differentials in the reinforcement and punishment of criminal and non-criminal alternative behaviour. According to this theory, antisocial attitudes can be analyzed as positive reinforcers, thereby increasing the chance of the criminal behaviour to reoccur.

Not only are the principles derived from differential association theory empirically sound (Baum and Wheeler, 1966; Andrews, 1980; Matsueda, 1982), but they also hold much promise for the treatment of criminals (Cressey, 1955). A number of studies have confirmed the importance of antisocial attitudes in criminal behaviour, and the powerful influence of differential associations (Andrews, Young, Wormith, Searle and Kouri, 1973; Andrews, Wormith, Kennedy and Daigle-Zinn, 1977; Wormith, 1984).

Similar concerns with the influence of attitudes on criminal behaviour, and with the development of effective deliberate intervention programs for offenders have been raised by the general personality and social psychological approach (Andrews and Bonta,

1994). This perspective uses a social learning theory as the basis for the personal, interpersonal, and community reinforcement theory (PIC-R), which is a broad perspective that encompasses the contribution of many theories.

According to the authors of the theory, any behaviour is determined by the density of rewards and costs that are contingent upon that particular behaviour. These rewards and costs are mediated by a range of variables that influences and can predict involvement in criminal behaviour. That is, differences between offenders and non-offenders are mainly due to four factors: (1) antisocial attitudes, values, beliefs, and rationalizations supportive of criminal behaviour; (2) antisocial associates/peers; (3) antisocial personality patterns such as psychopathy, impulsivity, egocentricity, and hostility, and (4) a history of criminal behaviour.

Amongst many others, one of the strengths of this psychologically-based perspective lies in its empirically informed construction, that is, its ability to be supported by findings from the best-validated empirical research. Repeatedly, influential studies have identified factors such as antisocial attitudes, antisocial associations patterns, particular antisocial personality attributes, and a history of antisocial behaviour as being among the best predictors of criminal conduct (Andrews, Wormith and Kiessling, 1985; Andrews et al., 1990; Gendreau, Andrews, Goggin and Chanteloupe, 1992; Gendreau, Little and Goggin, 1996; Pratt and Cullen; 2000).

The same cannot be said with regard to class-based sociological perspectives. These theoretical approaches entail conflict/Marxist theory, labeling theory, anomic/strain theory, and subcultural theory. Despite the fact that these theories often claim contradictory statements regarding the correlates of criminality and the appropriate

ways of dealing with offenders, they all maintain that social class is a major source of variation in criminal behaviour. The importance of lower class of origin as the leading contributor to criminality has been near unanimously, albeit carelessly, accepted by many influential writers in the broad field of criminology. A reflection of this popular, though misleading, sociological trend is clearly depicted in Hartung's writings (1965), where he noted that "one widely accepted conception of the cause of delinquency is that it results from the continually frustrating conditions of lower-class life" (p. 25).

Empirically, the causal significance of social class of origin in accounting for variation in criminal conduct at the individual level has been, rather consistently, distal and minimal (Hindelang, 1972; Andrews et al., 1990; Gendreau, Little and Goggin, 1996). More importantly, the tendency for class-based sociological theories to ignore powerful psychological factors that have repeatedly been associated with an increased risk for criminality, and so to discard rational empiricism as a foundation for knowledge, has added to their inadequacy in providing a valid and constructive model to account for variation in criminal behaviour.

An appealing and powerful notion however came out of subcultural theory. This concept regards the descriptions of the content of subculture, which as noted by Andrews and Bonta (2003), "have proved to be quite valuable in the specification of personal attitudes, values, and beliefs supportive of criminal activity" (p. 136). To appreciate the contribution subculturalists have to offer to the development of an empirically valid understanding of the causes of criminal behaviour, it is important to review the basic tenets of their theory.

According to subcultural theory, criminal behaviour occurs as a result of the endorsement of pro-criminal sentiments by a particular group, which is said to conform to (rather than deviate from) a set of pro-criminal norms that are in direct opposition to the values and beliefs held by middle-class society (Cohen, 1955; Cloward and Ohlin, 1960). In the words of Cohen (1955), “the delinquent subculture takes its norms from the larger culture but turns them upside down. The delinquent’s conduct is right by the standards of his subculture, precisely because it is wrong by the norms of the larger culture” (in Hindelang, 1970, p. 502).

From this perspective, it is believed that the behaviour of an individual is strongly related to his or her values, a notion that has been challenged by Sykes and Matza (1957). Sykes and Matza (1957) alleged that those engaging in delinquent behaviour are not committed to delinquent values. To ascertain their proposition, they argue that delinquents are, at least in part, committed to the values and norms held by the dominant social order. Amongst other things, this can be explained by the facts that delinquents often exhibit guilt or shame following their acts of delinquency, frequently accord admiration and respect to law-abiding individuals, and draw a sharp line between those who can be victimized and those who cannot (Sykes and Matza, 1957).

Therefore, delinquents do not hold deviant values and norms. Rather, the difference between delinquents and non-delinquents resides in an excessive use of justifications or rationalizations by the former group. The use of these techniques of neutralization allows delinquents to freely engage in criminal behaviour by defining it as “acceptable if not right” given the circumstances as well as to protect them from self-

blame or the blame of others. From this perspective, techniques of neutralization can therefore precede or follow criminal behaviour.

Sykes and Matza (1957) suggested five types of neutralization techniques: (1) the denial of responsibility (e. g., “I’m drunk, so no one can blame me”); (2) the denial of injury (e. g., “I’m going to bring the car back, so it’s not really stealing”); (3) the denial of the victim (e. g., “I only steal from businesses, not homes, and so no one is hurt”); (4) the condemnation of the condemners (e. g., “Look, even the police are crooked, so why should I obey the law”); and finally, (5) the appeal to higher loyalties (e. g., “My family need the money badly, so I have to steal”) (Shields and Whitehall, 1994).

Following this first proposition, other researchers have identified several other techniques of neutralization, two of which are particularly worthy of examination. The sixth proposed technique of neutralization, the defence of necessity (Minor, 1981), is closely related to the denial of responsibility, and asserts that “if an act is perceived as necessary, then one need not feel guilty about its commission, even if it is considered morally wrong in the abstract” (p. 298). An example of such technique of neutralization relates to white-collar crimes (e. g., “Illegal activities are standard business practices and necessary in a competing business climate”) (Minor, 1981).

Another technique of neutralization, the metaphor of the ledger (Klockars, 1974), relates to the balancing of good and evil acts where individuals feel they have a sufficient supply of good to their credit to engage in criminal activity without feeling guilty. This type of neutralization technique has, for instance, been usefully applied to illegal deer hunting (e. g., “My good qualities make up for the time that I killed a deer illegally”) (Eliason and Dodder, 2000).

Empirical support for the subcultural theory and its rival contender, the neutralization theory, has been methodology flawed, and consequently, has yielded mixed and questionable results. On the one hand, several challenges have been raised to Sykes and Matza's contention. For example, it has been argued that the use of techniques of neutralization is unnecessary because criminal individuals are, for the most part, not committed to conventional norms (Schwendinger and Schwendinger, 1967; Hindelang, 1970; Hindelang, 1974; Figlio, 1975; Austin, 1977). In Hindelang's words (1970), "it is not necessary to postulate the mechanism of [...] techniques of neutralization" because delinquents "do not have moral inhibitions which normally restrain them from delinquent involvement" and "if moral commitment does not exist" then "there is nothing to neutralize" (p. 508). A common argument put forward by many writers, and substantiated by empirical research (Mannle and Lewis, 1979; Minor, 1981), therefore posits that the use of techniques of neutralization is pertinent only for individuals who disapprove of criminal behaviour, that is, for those who do not hold antisocial attitudes. However, as will be shown, there is evidence supporting the notion that techniques of neutralization are also used by individuals whose values system is generally antisocial.

Studies supporting the subcultural's view that criminals share a beliefs system in direct opposition to the one held by conventional society are limited in several ways, and as such, have been criticized by a number of researchers who found evidence for neutralization theory (Rogers and Buffalo, 1974; Regoli and Poole, 1978; Teevan and Dryburgh, 2000). For instance, several studies have demonstrated that individuals who engage in criminal behaviour accept more neutralization than non-criminals, or in other words, that the acceptance of techniques of neutralization is positively related to

criminality, although it is worth noting that the relation has only been weak to moderate (Ball, 1966; Sechrest, 1969; Rogers and Alexander, 1970; Austin, 1977; Ball, 1983; Thurman, 1984; Agnew and Peters, 1986; Hollinger, 1991; Shields and Whitehall, 1994; Orozco-Truong, 1996; Mills, Kroner and Forth, 2002). Yet, other significant studies have failed to reach similar conclusions (Ball and Lilly, 1971; Ball, 1977). But again, various methodological problems associated with this research make it virtually impossible to draw strong conclusions regarding the role of neutralization in accounting for variation in criminal behaviour.

Beyond juvenile delinquency and other more traditional forms of criminal behaviour (e. g.: violence, theft, fighting, etc.), the principles embedded within neutralization theory have received attention, often quite profitably, from various researchers. Empirical findings support the notion regarding the use of neutralization in studies conducted on other deviant and illegal behaviours such as bullying (Hara, 2002), poaching (Eliason and Dodder, 1999), steroid use among bodybuilders (Monaghan, 2002), marijuana smoking (Priest and McGrath, 1970), drinking behaviour (Dodder and Hughes, 1993), cheating behaviour (Haines, Diekhoff, LaBeff and Clark, 1986; Storch, Storch and Clark, 2002), violation of religious tenets (Dunford and Kunz, 1973), and various types of white-collar crimes (Benson, 1985; Greenberg, 1998; Costello, 2000; Gauthier, 2001).

Additional empirical evidence for the value of neutralization theory has been provided for understanding a variety of deviant sexual behaviours (McCaghy, 1968; Scully and Marolla, 1984; Schreiber, 1993; Osland, Fitch and Willis, 1996), certain types of wife assaulters (Dutton, 1986), and the criminal conduct of female fraud offenders

(Atkinson, 1998) and professional murderers (Levi, 1981). Theoretical applications of the concept have also been expanded to individuals' involvement in legal, but morally contestable behaviours such as abortion (Brennan, 1974), occupational deviance (Friedman, 1974), and genocide (Alvarez, 1997).

Based on this evidence, it would appear that at a minimum, neutralization theory is relevant at particular times for certain individuals. As noted by Agnew (1994), it is possible that the mixed results of previous research, which have tried to understand the relative contribution of both the subcultural and neutralization perspectives are due to fundamental flaws in the designs of virtually all studies. One widespread difficulty that is worthy of discussion relates to the failure of many studies to distinguish the neutralization construct from the concept of antisocial attitudes.

Definitions of Concepts

Antisocial Attitudes

Research regarding the attitude construct has been predominant among social psychologists. Within this area of interest, attitudes are generally viewed along three essential dimensions: they are learned, they directly influence behaviour, and they can be changed (Allport, 1935). With regard to the attitude-behaviour relationship, it has been argued that "the strength of an attitude-behaviour relationship depends in large part on the degree of correspondence between attitudinal and behavioral entities" (Ajzen and Fishbein, 1977, p. 891). In other words, while a general attitude toward an object is predictive of the overall pattern of behaviour towards that object, it is not necessarily predictive of a specific behaviour. To accurately predict the performance of a specific

behaviour with respect to an object, one must assess an individual's specific attitude toward that object.

In a general sense, the construct of attitude is complex and comprised of both cognitive and affective components, which interact with a behavioural component (either an intention or an actual behaviour) (Bagozzi and Burnkrant, 1979). One of the most commonly accepted theoretical orientations explaining the relationship between these components is Ajzen and Fishbein's (1980) theory of reasoned action. According to this theory, an individual's rational decision to engage in a behaviour is primarily determined by that person's intention to engage in the behaviour, which is influenced on the one hand, by his or her relative evaluation of performing the specific behaviour, and on the other hand, by his or her awareness of social pressures to engage in the behaviour. Within this context, an attitude has been defined as "a disposition to respond favorably or unfavorably to an object, person, institution, or event" (Ajzen, 1988).

As previously discussed, the attitude construct, or more specifically the antisocial attitudes construct, has played a fundamental role in the field of criminal psychology and criminology. Empirically, the positive relationship between antisocial attitudes and criminal behaviour has been repeatedly validated (Glueck and Glueck, 1950; Blumenthal, 1973; Andrews and Kandel, 1979; Andrews and Wormith, 1984; Reicher and Emler, 1985; Roy and Wormith, 1985; Hoge, Andrews and Leschied, 1994). However, it has been acknowledged that, within mainstream criminal behaviour research and practice, there is a somewhat perplexing lack of uniformity in terminology concerning the antisocial attitudes construct (Simourd and Olver, 2002). For the purpose of the present study and within the context of the theory of reasoned action, the concept of antisocial

attitudes is defined as “an individual’s favorable/unfavorable evaluation of performing a specific criminal act and his or her perception of the relevant social pressures to perform/not perform the act” (Simourd, 1997).

Within the criminological literature, at a more micro level, references to the antisocial attitudes construct have generally encompassed terms such as criminally oriented norms, values, beliefs, and rationalizations or tolerance for law violations (Sutherland, 1947; Gendreau, Grant, Leipziger and Collins, 1979; Agnew, 1994; Simourd, 1996; Simourd, 1997; Simourd and Van de Ven, 1999; Andrews and Bonta, 1994, 1998, 2003). However, it is contended that a more precise and valuable conception of criminal behaviour is achieved when the use of techniques of neutralization is analyzed separately, or independently of the antisocial attitudes construct. In other words, there are reasons to believe that the concept of antisocial attitudes is different from, albeit strongly related to, the neutralization construct.

Neutralization

In this study, under the umbrella of the neutralization construct are covered commonly used expressions such as rationalizations, excuses, justifications, and/or tolerance for law violations, many of which are terms previous research has conceptualized as representing differences in moral tone (Mills et. al., 2002). Techniques of neutralization have been defined as “the operationalization of vocabularies of motives” (Hamlin, 1988, p. 427). They are therefore not considered norms, values, beliefs, or motives, which are all integrated in the broad construct of attitudes, but rather represent a mechanism through which these latter are activated. According to Rogers and Buffalo (1974), neutralization is “a method whereby a person renders behavioral norms

inoperative, thereby freeing himself to engage in behavior which would otherwise be considered deviant” (p. 318). Either one of these definitions accurately serves the purpose of the present study.

Other theoretical traditions have used different terms, but have dealt with the same topic, that is “the buffering of negative psychological and social effects caused by norm violation” (Fritzsche, 2002). One of the most common typologies that exists in the literature has been provided by Scott and Lyman (1968) who distinguished between two types of account, namely justifications and excuses. Other popular taxonomies include the role of mechanisms of moral disengagement in self-regulatory processes (Bandura, Barbaranelli, Caprara and Pastorelli, 1996), and in the sex offender literature, the use of cognitive distortions, which encompasses expressions of denial, minimization and justification (Abel, Becker and Cunningham-Rathner, 1984).

It follows that the main purpose of neutralization is to reduce the discrepancy or dissonance between one’s behaviour and the prevailing social norms as perceived by oneself and/or others (Robinson and Kraatz, 1998). As such, techniques of neutralization diminish feelings of anxiety and distress (Van den Hout, Van Pol and Peters, 2001). In other words, by rendering the dominant norms ineffective, techniques of neutralization protect the individual from self-blame and the blame of others.

Differences Between Antisocial Attitudes and Neutralization

Theoretical support for the notion that techniques of neutralization differ from antisocial attitudes has been provided by Burgess and Akers’s (1966) principle of operant conditioning. Despite the fact that they both increase the likelihood of criminal behaviour

to occur (or reoccur), antisocial attitudes represent *positive* reinforcers, whereas techniques of neutralization correspond to *negative* reinforcers.

Traditionally, the two concepts have been distinguished by arguing that, rather than representing the actual content of antisocial attitudes (i. e., what a person thinks), techniques of neutralization symbolize the process by which antisocial attitudes are thought through or made possible (i. e., how a person thinks). In their article on subterranean values, Matza and Sykes (1961) clarified that neutralization “centers its attention on *how* an impetus to engage in delinquent behavior is translated into action”, which “leaves unanswered a serious question”, that is “*what* makes delinquency attractive in the first place?” (emphasis added, p. 713). The authors then went on to provide an answer to their own question. They discussed the notion of subterranean values, which according to Matza and Sykes (1961) condition the effect of neutralization on delinquency.

This view has been adopted and reworked by Agnew and Peters (1986) who argued that, at a minimum, neutralization would not lead to criminality unless the individual also believes that he or she is in a situation in which the neutralization is applicable. In other words, for neutralization to have an effect, the attitude towards the specific criminal behaviour must be favoured. Therefore, as emphasized by Matza (1964), neutralization does not automatically lead to criminality, but permits criminal behaviour under extenuating conditions. What Matza calls “extenuating conditions” might well represent the indirect effect that the use of techniques of neutralization has on criminal behaviour. That is, the effect of neutralization on criminal behaviour is achieved through its relationship with antisocial attitudes.

Another slightly different use of neutralization is however possible, providing additional evidence for the suggestion that the neutralization concept is different from the antisocial attitudes concept. It is reflected in the use of techniques of neutralization among individuals who hold conventional values and beliefs (i. e., who do not hold antisocial attitudes). These two alternative routes pointing to the relationship between the use of techniques of neutralization and criminal behaviour demonstrate, at least in theory, that there are reasons to believe that the concepts of neutralization and antisocial attitudes are distinct. Empirical evidence for these propositions is provided later on.

Amongst other things, the failure of previous studies to distinguish between the concepts of antisocial attitudes and neutralization has lead to the impossibility in determining whether the use of techniques of neutralization precedes or follows criminality as individuals try to rationalize their behaviour (Agnew, 1994). As a result, to understand the unique contribution of neutralization in accounting for variation in illegal conduct, one must not only differentiate between the use of neutralization and the existent general attitude toward the behaviour (i. e., the subterranean value), but also identify the causal ordering relating neutralization and criminal behaviour.

One promising avenue to conceptualize the temporal relationship between neutralization and criminal behaviour argues that, for those individuals who hold conventional values and beliefs (i. e., who do not hold antisocial attitudes), techniques of neutralization are used prior to engaging in criminal activity to protect the individuals from self-blame. From this perspective, with its small to moderate relationship with criminal behaviour, the presence of neutralization increases the likelihood of criminal behaviour to occur, or in other words, acts as a major predictor for criminal activity.

On the other hand, for those individuals who do not hold conventional values and beliefs (i. e., who hold antisocial attitudes), techniques of neutralization are used following the criminal act to justify the behaviour and protect the individuals from self-blame and the blame of others. According to this hypothesis, because the individual does not hold a conventional beliefs system, there is no need to neutralize or rationalize the behaviour in advance. However, following others' (i. e., the legal system, society, or any other significant or influential person) responses to the deviant behaviour, individuals feel the need to justify their actions to the broader audience and relieve themselves from reprimand, negative sanctions, and subsequently, self-blame. From this perspective, the use of neutralization is not a contributing factor to the past criminal behaviour, but actually interacts with the pre-existing antisocial attitudes to increase the likelihood of future criminal behaviour to occur.

This latter view of neutralization represents what has been referred to by Hirschi (1969) as a hardening process. According to this hypothesis, criminal behaviour leads to the development of neutralization or rationalizations, which in turn facilitates further criminal activity. Empirical evidence for the thesis of neutralization as a hardening process has been provided (Minor, 1984; Dabney, 1995).

Summarizing on his research findings, Minor (1984) suggested that the hardening process could be conceptualized as "the erosion of morals: the more excuses one accepts for morally problematic behavior at one point in time, the more likely one is to approve of that behavior in the future (without regard to the excuses then available)" (p. 1015). Embedded in this proposition is the idea (which has been discussed by the author elsewhere) that over time, either the neutralization or the conventional norm will

dissipate, leading the individual to either conformity or guilt-free criminality. Consistent with this notion, Beauvois (2001) described the process of rationalization (i. e., neutralization) as being “rooted in an attitude change”, or as “a change in the value attributed to an object in the environment” (p. 217).

Therefore, consistent with previous understandings, it is proposed that the use of techniques of neutralization both precedes and follows criminal behaviour. However, as opposed to previous interpretations, it is argued that techniques of neutralization are used by both individuals who hold conventional values and beliefs (i. e., prosocial attitudes) and those who hold unconventional values and beliefs (i. e., antisocial attitudes).

Based on the literature review, it is suggested that for those individuals who are generally prosocial, techniques of neutralization are used prior to engaging in criminal behaviour to protect from self-blame. In this case, although not linked with antisocial attitudes, neutralization has a direct effect on initiating criminal activity, and as a result, is considered a significant risk factor for the occurrence of criminal behaviour. However, for those individuals whose attitudes toward criminal behaviour is for the most part favourable, techniques of neutralization are used, at first, following their criminal behaviour to justify their act and protect from self-blame and the blame of others, but subsequently prior to criminal activity in a sort of hardening process. In this case, neutralization does not have a direct impact on the commission of the criminal act, but rather interacts with antisocial attitudes, and as such, significantly increases the chance of criminal behaviour to reoccur.

In both scenarios, for the reasons discussed previously, despite the fact that the two concepts *can* be strongly related, techniques of neutralization are not considered

antisocial attitudes. Theoretically then, as noted by Hamlin (1988), the constructs of neutralization and antisocial attitudes are conceptually distinct as “the use of techniques and concrete individual statements will reinforce existing vocabularies or indicate movement from one set of motives to another” (p. 427).

Empirical data on this alternative route to understand the unique contribution of neutralization as a predictor of criminal behaviour have been substantiated by a well-designed and powerful research conducted by Agnew (1994). Findings from his study on the effect of neutralization regarding violence on violent behaviour among adolescents suggested that neutralization is a major predictor of criminal behaviour for those individuals who hold conventional values and norms, whereas neutralization does not cause criminal behaviour among those individuals with weak conventional beliefs, although these individuals are more likely to try to justify their conduct after the fact.

The failure of other studies to reach similar conclusions regarding the role of neutralization in accounting for variation in criminal behaviour may have been due, at least in part, to various measurement, methodological, operational as well as theoretical problems. There is no doubt that these limitations have considerably hindered the development of alternative ways to understand the concepts of neutralization and antisocial attitudes, and how they temporally relate to criminal conduct.

Development of Effective Intervention Programs

A review of the literature has bluntly indicated that theoretically and empirically, the concepts of antisocial attitudes and neutralization have been fundamental to the study of criminal behaviour. Practically however, the field has been slow to integrate these concepts into the development of appropriate intervention programs for offenders. This

occurred despite the fact that researchers have, for a number of years, argued about the necessity to target antisocial attitudes (Mylonas and Reckless, 1963; Andrews and Wormith, 1984; Wormith, 1984; Simourd, 1996; Simourd and Van de Ven, 1999; Simourd and Olver, 2002) as well as neutralization (Sechrest, 1969; Ball and Lilly, 1971; Walters and White, 1989; Loza and Clements, 1991; Greenberg, 1998; Robinson and Kraatz, 1998; Hara, 2002; Tsang, 2002) in interventions aimed at reducing the occurrence of criminal behaviour.

Many factors may have been responsible for this discrepancy, such as the lack of suitable measurement instruments (Shields and Whitehall, 1994; Simourd and Van de Ven, 1999), or the lack of agreement over the factors that need to be assessed (Simourd, 1997). Historically however, the underlying reason for the failure of the field to design and implement empirically and theoretically sound intervention programs has concerned the socio-political debate over the different ways in which the criminal justice system should deal with issues surrounding the processing of criminal individuals.

Throughout the 50s, 60s, and 70s, mainstream sociological criminology has been inherently biased against the effectiveness of correctional agencies with its anti-differentiation, anti-prediction, anti-treatment, and anti-research beliefs (Andrews and Bonta, 1994, 1998, 2003). Following Martinson's (1974) conclusion that there is "very little reason to hope that we have in fact found a sure way of reducing recidivism through rehabilitation" (p. 49), the trend was to believe in a "Nothing Works" ideology. This type of knowledge destruction proliferated with the help of theorists such as Wilson (1980) and Lab and Whitehead (1988), who continued to believe that deliberate intervention programs have little direct impact on future criminal behaviour.

However, as noted by McGuire (2001), “academics, practitioners and politicians alike appear to have awoken, particularly during the last quarter of the 20th Century, to the need to evaluate systems of services and their effects” (p. 26). During that period, evidence supporting the notion that correctional interventions can have a positive effect on recidivism have burgeoned. More specifically, several meta-analytic studies have not only demonstrated that the effect of delivery of treatment services on recidivism is far more positive than that of criminal sanctioning without deliberate rehabilitative intervention, but also that some approaches to treatment are clearly better than others (Andrews et al., 1990; Lipsey, 1995; Dowden and Andrews, 2000).

The early deduction put forward by Gendreau and Ross (1981) that “the antitreatment movement in corrections was based on a faulty premise: the assumption that treatment does not work” (p. 45) seems therefore to have been accurate. In the years that followed, several other prominent academics and researchers have advocated for the need to pursue the objectives of the criminal justice system in accordance with what has proven to work best with a population of offenders (Andrews and Bonta, 1994, 1998, 2003; Hollin, 1999; Cullen and Gendreau, 2001; McGuire, 2001, 2002). As McGuire commented (2002), “legal frameworks and networks are essentially ineffective for their proclaimed purposes with regard to convicted offenders, and it is *only* by the addition of services that entail active, constructive interventions that criminal justice personnel will be likely to achieve the stated aims of the criminal justice process” (p. 184).

It is now widely recognized that the major sources of variability in the outcome of rehabilitative programs for offenders can be summarized by four general principles, three of which are particularly relevant to the present study. On the basis of the evidence

reviewed, these principles of effective interventions, which are the risk principle, the need principle, and the responsivity principle (Andrews and Bonta, 1994), have significantly correlated with treatment outcomes.

Simply put, the risk principle states that high-risk offenders need intensive services while low-risk offenders need minimal or no treatment at all. Research has consistently shown that high-risk offenders respond better to intensive treatment while low-risk offenders do as well or better with minimal intervention (Cotton and Fein, 1976; Andrews and Kiessling, 1980; Andrews and Friesen, 1987). Also embedded within this principle is the recognition for the importance of using appropriate measurement tools to assess a multiplicity of both static and dynamic risk factors, and subsequently allocate offenders to different levels of supervision and service based on that information (Andrews, Bonta and Hoge, 1990; McGuire, 2001).

The need principle formulates that services must focus on criminogenic need factors, which are dynamic risk factors that, when targeted, reduce the chances of recidivism. Amongst the major risk factors that are correlated with criminal behaviour are antisocial attitudes, antisocial peer associations, antisocial personality patterns such as self-control difficulties, substance abuse, family/marital problems, low education/employment achievement, and problematic recreational activities (Andrews and Bonta, 2003). To be effective at reducing recidivism, it is critical that intervention programs target a wide range of criminogenic need factors (Lipsey, 1995; Dowden, 1998; Dowden and Andrews, 2000). Other dynamic risk factors, which are not criminogenic such as lack of self-esteem and feelings of personal inadequacy including anxiety and

depression, may improve a person's overall sense of well-being when targeted, but will not lead to a reduction in the occurrence of criminal behaviour.

With regard to the responsivity principle, it states that the style and mode of intervention must be matched to the learning style and abilities of offenders. Essentially, the responsivity principle considers "matching the treatment approach with the learning style and personality of the offender", "matching the characteristics of the offender with those of the therapist", and "matching the skills of the therapist with the type of program" (McGuire, 2001). In the context of correctional treatment, potential responsivity factors are gender, age, the existence of a mental or personality disorder, verbal intelligence, language, ethnicity, and motivational level (Andrews, 1989).

As a general rule, this principle also implies that the most powerful and influencing available strategies of change are social learning/cognitive behavioural. A number of studies has indeed demonstrated the beneficial impact of cognitive-behavioural programs not only in reducing rates of reoffending (Andrews et al., 1990; Izzo and Ross, 1990; Henning and Frueh, 1996; Redondo, Sanchez-Meca and Garrido, 1999; Allen, MacKenzie and Hickman, 2001; Pearson, Lipton, Cleland and Yee, 2002), but also in diminishing problematic institutional behaviour (Baro, 1999). By using practices such as reinforcement, effective disapproval, modeling, role-playing, practice, structured learning, problem-solving, and acquisition through observation and direct experience, these approaches to treatment have the greatest likelihood of success.

Additional characteristics of effective correctional programs include a sound theoretical basis, the use of advocacy and brokerage, a respect for both the relationship (i. e., quality of interpersonal influence facilitating or not learning) and contingency (i. e.,

direction of interpersonal influence favouring or not crime) principles, and treatment integrity. Treatment integrity refers to the need for services to be delivered by personnel who have adequate training and sufficient resources, who follow the program's guidelines and who are involved in the assessment of offenders' progress and in the overall evaluation of the program's success (Hollin, 1995). By and large, the integrity of a program is concerned with the management structures and practices that are necessary for the effective delivery of rehabilitative programs (Hollin, 1999). Empirical evidence have also demonstrated that rehabilitation programs that contain a relapse prevention component and that are delivered in the community or in non-residential settings (Andrews et al., 1990; Izzo and Ross, 1990) are the most effective in reducing the risk of reoffending.

It follows that variability in the effectiveness of correctional interventions on recidivism is due, at least in part, to the degree to which correctional programs adhere to these guidelines of practice. Following findings from their meta-analysis, Andrews and his colleagues (1990) have suggested what were some of the most promising intermediate targets. For an adult population, these include: changing antisocial attitudes, feelings and peer associations; promoting identification with antiriminal role models; increasing self-control and self-management skills; replacing the skills of lying, stealing, and aggression with other more prosocial skills; reducing chemical dependencies; and generally shifting the rewards and costs for criminal and noncriminal activities in familial, academic, vocational, and other behavioural settings. Rehabilitative interventions that target these dynamic risk factors, and that are embedded within an intensive and structured behavioural framework delivered by trained professionals in the community to high-risk

cases are, according to theory and research, relatively likely to reduce rates of reoffending.

Conversely, theoretical and empirical evidence have also suggested some principles of ineffective intervention (Andrews, 1989; Andrews et al., 1990; Gendreau, 1996). For instance, traditional “Freudian” psychodynamic and non-directive or client-centered therapies have yet to prove their effectiveness in corrections. This is not unexpected as not only their underlying treatment model provides very little in the way of concrete direction (i. e., does not respect the contingency principle), but also their primary targets are for the most part non-criminogenic. In spite of this, evidence does exist suggesting that when appropriate responsivity factors are taken into consideration, relationship oriented counselling can be correlated with decreased crime rates among some clients, namely those with above average empathy scores or interpersonal skills (Kiessling and Andrews, 1980).

Similarly, programs designed according to the principles of either deterrence or labelling have not shown any promise. As Andrews (1989) noted, “yelling at people is inconsistent with the relationship factor”, “fear of punishment is not a major predictor of criminal conduct”, and “radical non-intervention is simply inconsistent with the risk principle” (p. 17).

The same can be said with regard to other punishment-based techniques or the so-called punishing smarter strategies such as shock incarceration, boot camps, electronic monitoring, and frequent drug testing, which have not demonstrated much effectiveness in curbing rates of reoffending (MacKenzie, 2000). This is not surprising considering the conditions (e. g., inevitability, unavailability, immediacy, intensity, unavailability of

alternate responses) under which aversive conditioning has demonstrated to be reliable in effecting behavioural change. As noted by McGuire (2002) the conditions under which punishment-based techniques are effective “are unlikely to be realised adequately in the complex real-world environment of the criminal justice system, or in the life-styles of those who regularly come into contact with it as offenders” (p. 188).

Overall, counter to the beliefs, intuitions, and assertions of many criminal justice professionals, there is very little evidence suggesting that a punitive ideology has a desirable impact on reducing the occurrence of criminal behaviour, and the costs associated with crime and its processing. As noted by Andrews and Bonta (2003), “it appears that the promotion of punishment and the delivery of treatment services inconsistent with the principles of the psychology of criminal conduct are actually contributing to increased criminal recidivism relative to the effects of clinically and psychologically appropriate treatment” (p. 96).

Acknowledging the substantial body of empirical evidence available regarding the predictors of criminal behaviour and the potential effectiveness of rehabilitative interventions, there is now a need to design correctional programs that value and respect research findings. As noted by Gendreau and Ross (1987), “the next goal of the rehabilitative agenda, besides adding to the principles as more data accrue, is to address how we can overcome the sociopolitical and professional barriers to the implementation of high-quality offender services that have been found to be effective in reducing offender’s criminal behavior” (in Gendreau, 1996, p. 130).

This opinion has been expressed by many other academics and researchers (Andrews, Bonta and Hoge, 1990; Selke, 1984; McGuire, 2002). Even Martinson (1979),

in concluding from his review on the effectiveness of rehabilitation in reducing recidivism, recognized that one of the possible explanations for the negative findings could relate to the fact that the correctional programs examined were simply not good enough. Following this line of thought, he reported that “if one wishes to believe this, then what our correctional system needs is simply a more full-hearted commitment to the strategy of treatment” (p. 49).

This goal was taken over by the Ottawa Parole Office, in 1995, when it funded the John Howard Society of Ottawa-Carleton to develop and implement an intervention program that respects the existing literature on effective rehabilitation. This program was named Counter-Point (Graham and Van Dieten, 1999), and was initially offered to federal offenders in the summer of 1995. Approximately two years later, in addition to the original site in Ottawa, the program was accessible in a number of other cities in the Province of Ontario. In April of 1999, following several opportunities to pilot the program across many different Canadian Provinces, Counter-Point was designated a core program of the Correctional Service of Canada.

The Counter-Point program was specifically developed to target criminogenic need factors as well as the most promising targets of change mentioned earlier with a specific emphasis on antisocial attitudes, values, beliefs, and the use of neutralization. Some of the major goals of the program are to enhance participants’ willingness to alter criminal attitudes and neutralization; to provide participants with the skills necessary to identify and challenge procriminal attitudes and the use of techniques of neutralization; to assist participants to develop and adopt prosocial attitudes; to provide participants with the appropriate self-monitoring and self-management skills to ensure attitudinal and

behavioural change; to increase personal responsibility and accountability by teaching perspective-taking and generic problem-solving skills; to promote access to prosocial people and activities; and to assist participants in identifying high-risk situations and develop the necessary resources to prevent future criminal behaviour.

Counter-Point is composed of 25 sessions, which are divided into 3 processes: the intake process, the intervention process and the closure process. The intake process consists of 3 individual sessions that entail orientation, assessment, and via motivational interviewing techniques, goal setting. The intervention process contains 6 modules that are introduced sequentially over 20 two-hour group sessions, which can be delivered from 1 to 3 times a week. The modules are: Setting the context for change (2 sessions); Identifying support for change (2 sessions); Identifying pro-criminal attitudes, values and beliefs (7 sessions); Altering pro-criminal sentiments (3 sessions); Pro-social problem-solving (2 sessions); and Maintaining Change (4 sessions). Finally, the closure process is comprised of 2 individual sessions. The first session is used to review the participant's progress report while the second involves a Parole Officer (PO), and entails a review of the participant's relapse prevention plan.

As its underlying theory, Counter-Point uses a social learning perspective, and applies cognitive-behavioural principles and methods to facilitate attitudinal and behavioural change. Amongst other things, the program features interactive presentation and practice, sequential and structured learning, prosocial modeling, role play, rehearsal, and effective reinforcement and disapproval. The integrity of Counter-Point is maintained through ongoing process evaluations, and the use of delivery manuals created by experienced and qualified program designers. In addition, program entry and

participation guidelines are clearly outlined, and staff has experienced working with correctional clients. Furthermore, all staff receives training in the principles of effective deliberate intervention and standards of professional conduct, and has access to clinical support and guidance. Supplementary characteristics of Counter-Point, which have been directly derived from meta-analytical findings and other worthy empirical evidence include the fact that the program is delivered in community settings to men who are at moderate to high-risk of recidivism.

For the purpose of the present study, given the program model and the emphasis it places on the constructs of antisocial attitudes and neutralization, it is hypothesized that:

1. Antisocial attitudes will be positively correlated with neutralization.
2. Antisocial attitudes will be positively correlated with rates of recidivism.
3. The relationship between antisocial attitudes and rates of recidivism will be moderated by neutralization. Specifically, the effect of neutralization on rates of recidivism will be greater for offenders who endorsed low levels of antisocial attitudes.
4. Controlling for risk and prior treatment, rates of recidivism for offenders who participated in Counter-Point will be lower than for those who did not participate in the program.

METHOD

Participants

Participants in the present study consisted of incarcerated male offenders released in the community. This investigation was conducted on federal offenders who have been incarcerated in any of the five regions (i. e., Pacific, Prairies, Ontario, Quebec, Atlantic) under the responsibility of the Correctional Service of Canada. Receiving a sentence of 2 years or more is the criterion for entering federal custody in Canada.

Counter-Point participants ($n = 339$) ranged in age from 19 to 60 years, with a mean age of 35 years ($SD = 9.32$). The majority of the sample was Caucasian (77.0%), while the remainder were Native (8.6%), Black (8.3%), Asian (4.4%), Hispanic (0.6%), Arab (0.3%), and other (0.9%). The marital status of the participants was single (47.5%), common law (34.8%), married (10.6%), divorced (3.5%), separated (2.9%), and widowed (0.6%). Out of 339 offenders, 16 served indeterminate sentences. The duration of sentences for the remainder of the sample ranged from 1 to 32.7 years, with a mean sentence time of 5.0 years ($SD = 4.14$). In addition to various drug (30.0%) and property/loitering (21.8%) offences, index offences for the sample included robbery/extortion (20.9%), murder/attempted murder/manslaughter (8.6%), assaults/threats (5.3%), sexual offences (2.7%), major driving offences (2.1%), possession of weapons/explosives (1.2%), kidnapping/confinement/hijacking (0.9%), arson (0.9%), and treason/smuggling/income tax evasion (0.3%).

Correspondingly, the age of offenders comprised in the comparison group ($n = 332$) ranged from 19 to 73 years, with a mean age of 36 years ($SD = 9.97$). In terms of racial composition, most offenders were also Caucasian (68.7%), followed by Native

(12.4%), Black (12.3%), Asian (4.2%), Arab (0.9%), Hispanic (0.6%), and other (0.6%). Single (46.4%) and common law (32.8%) were the predominant identifying marital status within the group, but some offenders were also married (11.7%), divorced (5.1%), and separated (3.9%). Out of 332 offenders, 8 served indeterminate sentences. The duration of sentences for the remainder of the sample ranged from 1 to 34.2 years, with a mean sentence time of 5.3 years ($SD = 3.77$). Index offences for the sample included robbery/extortion (35.2%), drug offences (17.8%), property/loitering offences (11.4%), assaults/threats (9.6%), sexual offences (9.3%), murder/attempted murder/manslaughter (8.7%), fraud/forgery (3.6%), major driving offences (1.8%), kidnapping/confinement/hijacking (0.9%), possession of weapons/explosives (0.6%), arson (0.6%), and escape/ breach of conditions (0.3%).

Procedures

Two different samples were therefore used in this study. The first sample was comprised of 339 offenders who had been referred to Counter-Point, and who had started the program between January 1st, 2000 and March 31st, 2002. For the purpose of the present investigation, decisions leading to the selection of the time period for the inclusion of offenders in the study were made considering that data collection on Counter-Point participants was not done in a systematic and thorough way prior to the year 2000. Other influencing factors in the attempt to control for the possibility of bias in sample selection included the desire to balance the need for both an adequate sample size and a sufficient length of follow-up.

Participants in the Counter-Point program were identified through the Offender Intake Assessment (OIA) as individuals having a moderate to high need on the attitudes

domain. After being initially referred, offenders were interviewed by a Correctional Program Officer (CPO) who further assessed their suitability for treatment and explained the program's objectives and expectations. Acceptance into the program was based largely on risk and needs, but was also influenced by the offender's motivational problems, and/or expected conflict with participation and program planning.

Upon admission to the Counter-Point program, all offenders were required by the Correctional Service of Canada to participate in a paper and pencil self-report assessment battery, which was comprised of six psychometric instruments, three of which were used in the present study. The order of administration of tests was the same for all participants. Apart from offenders who failed to complete the program (i. e., drop-outs) and another small portion of offenders who were only assessed pre-program (see Appendix E for details), the test battery was administered twice, at intake and upon completion of the program. The interval between pre- and post-testing varied, but for the most part lasted from 2 to 3 months.

Following participation in the Counter-Point program, all questionnaires were sent by CPOs to the National Headquarters (NHQ) of the Correctional Service of Canada. Offenders included in the treatment group represented only those whose pre-, or pre- and post-assessment battery of self-report tests was forwarded by CPOs to NHQ. As such, offenders for whom pre-/post-assessments were not received at NHQ by June 30th, 2003 were excluded from the present study. For offenders who participated in Counter-Point twice, and so completed the assessment battery more than once, only the most recent participation was recorded (i. e., all earlier attempts or records of unsuccessful participation in the program were deleted from the present study).

Furthermore, offenders who were officially enrolled in Counter-Point and completed the pre-assessment battery of self-report tests, but failed to participate in any session of the program were further excluded from the treatment group in this study. These offenders however represented potential candidates for inclusion in the comparison group. Offenders whose personal identifying information was missing on the questionnaires (e. g., no Finger Print Serial (FPS) number, no name) were also deleted because of the impossibility to identify participants. Additional offenders were dropped for reasons such as death, deportation, or pardon, or due to unavailability of complete recidivism data.

The ensuing total of 339 offenders comprised the treatment group of this study, which represented a mere 35% of the total number of offenders who have actually participated in the Counter-Point program between January 1st, 2000 and March 31st, 2002 as recorded in the Offender Management System (OMS). Although there is no strong reason to believe that this sample of offenders was systematically different from the overall population of Counter-Point participants, the lack of means available to test this assumption represents a potential limitation (i. e., selection bias) to this research.

The second sample of this study served as a comparison group, and consisted of 332 federally incarcerated offenders who were released in the community between January 1st, 2000 and March 31st, 2002. These offenders were appropriate candidates (i. e., they met the referral criteria) for Counter-Point, but never enrolled into the program. Reasons for non-participation varied, but often involved scheduling issues (e. g., conflict with other programs or employment, warrant expiry date occurring before expected program completion, lack of program availability at the specific site, etc.) as well as

population management motives (e. g., presence of incompatibles, cancellation of assessments, etc.).

The formation of the comparison group was accomplished, using random procedures, controlling for both prior treatment and risk. More specifically, offenders in the comparison group were matched to offenders in the treatment group on two variables, first on previous successful completion of other core correctional programs, and second on risk scores (i. e., Statistical Information on Recidivism-R1 or Criminal Risk Assessment). Following meticulous adherence to the pre-established matching criteria, among all offenders identified by the Offender Management System (OMS) as appropriate candidates for inclusion in this study, it was possible to suitably select 332 offenders to comprise the comparison group.

Measures

Criminal Sentiments Scale - Modified (CSS-M; Shields and Simourd, 1991 - Appendix A)

The Criminal Sentiments Scale - Modified is a modified version of the original Criminal Sentiments Scale (CSS) (Gendreau, Grant, Leipziger, and Collins, 1979). It is a 41-item self-report questionnaire consisting of three dimensions, which have traditionally been used to measure the attitudinal construct. The first sub-scale is named Attitudes towards the Law, Courts, Police (ALCP, 25 items) and evaluates respect for the law and the criminal justice system. The second is called Tolerance for Law Violations (TLV, 10 items) and explores rationalizations for criminal behaviour, and the third is entitled Identification with Criminal Others (ICO, 6 items) and assesses the participant's opinion of law violators. Respondents are asked to answer, for each of the items, whether they

agree, disagree, or are undecided. Each endorsement of an antisocial statement (or rejection of a prosocial one) yields 2 points, whereas each rejection of an antisocial statement (or acceptance of a prosocial one) yields 0 point. Undecided responses are scored as 1. Therefore, higher scores on each of the sub-scales are indicative of procriminal attitudes or neutralization.

A number of studies have established the validity and reliability of the CSS and CSS-M among adult (Andrews and Wormith, 1984; Andrews, Wormith, and Kiessling, 1985; Roy and Wormith, 1985; Simourd, 1997) and juvenile offenders (Shields and Simourd, 1991; Simourd and Van de Ven, 1999). Mills and Kroner (1997) however, found the CSS to be uncorrelated to reconvictions or parole violations among a sample of violent offenders. Furthermore, a component analysis of the original version of the Criminal Sentiments Scale among a sample of violent and sexual offenders found the factors to be unrelated to recidivism (Kroner and Mills, 1998). In spite of these findings, a recent study exploring the underlying dimensions of the criminal attitudes construct has demonstrated the CSS-M factors (i. e., two from the LCP, and one each from the TLV and ICO sub-scales) to be linked to criminal conduct outcome criteria (Simourd and Olver, 2002). As a result, the researchers have encouraged practitioners to use the instrument in their assessment and treatment efforts.

In previous sections, it was argued that the concepts of antisocial attitudes and neutralization were, although related, distinct. As such, it would be expected that the two constructs have operational definitions that are mutually exclusive. For the purpose of the present investigation, but contrary to its conventional use, the Attitudes towards the Law, Courts, Police and the Identification with Criminal Others sub-scales were therefore used

as measures of antisocial attitudes whereas the Tolerance for Law Violations sub-scale represented an assessment of the neutralization concept.

Despite some inconsistencies in the results obtained from research conducted on the components of the original and modified versions of the Criminal Sentiments Scale (Simourd and Olver, 2002; Kroner and Mills, 1998), there has been a considerable overlap in the identification of item content between the factors derived from the instrument, demonstrating to some extent the strength of the underlying antisocial attitudes domains. More importantly in these two studies still was the support offered for the fact that the Tolerance for Law Violations sub-scale was measuring a separate dimension of the criminal attitudes construct. To further justify the proposition of using the TLV sub-scale as an independent measure in the present investigation, Simourd and Olver (2002) also provided evidence for the robustness of the neutralization factor and for the internal consistency of the items comprising the specific sub-scale.

Pride in Delinquency Scale (PID; Shields and Whitehall, 1991 - Appendix B)

The Pride in Delinquency Scale is a brief 10-item self-report instrument developed as an extension to the CSS. The measure is designed to assess the degree of comfort (i. e., pride vs. shame) that respondents would experience if they were to engage in 10 different criminal activities. Responses are rated on a Likert-type scale ranging from -10 to +10. Negative numbers (-10 to -1) indicate shame while positive numbers (+1 to +10) reflect pride in the commission of the act. A score of 0 indicates an undecided response. Scores are summed up and added to a constant of 100 to ensure a positive total. Thus, higher scores reflect increasing antisocial attitudes and vice versa.

Research among young (Shields and Whitehall, 1991) and adult offenders (Simourd, 1997) have indicated that the Pride in Delinquency scale possessed acceptable psychometric properties, and so was a reliable and valid measure of antisocial attitudes. A study conducted by Simourd and Van de Ven (1999) has also demonstrated that the PDI was significantly related to criminal behaviour and could predict recidivism, mostly among non-violent offenders.

Neutralization Measure - Modified (NM-M; Atkinson, 1998 - Appendix C)

The Neutralization Measure - Modified assesses the extent to which offenders use neutralization or justifications for their criminal behaviours. This neutralization scale is based on Atkinson's Neutralization Measure (Atkinson, 1998), which in turn was derived from Shield's Neutralization Scale (Shields and Whitehall, 1994). Respondents are asked to read 5 crime scenarios and assign the sentence that they think the offender in the scenario deserves. They are then asked to assign a sentence to this same offender under 8 different conditions (i. e., 7 neutralizing statements and one designed as a validity check) under which the crime could have been committed.

To improve on the validity and reliability of the measure, scores are computed in two ways (Atkinson, 1998). First, items that cause any reduction at all in sentence are assigned a score of 1 (i. e., indicating the presence of neutralization) and those that stay the same or increased are scored as 0 (i. e., indicating the absence of neutralization). Second, each sentence is expressed as a proportion of the original sentence assigned ranging from 0 to 1 (i. e., a score of 1 reflecting no use of neutralization), and the closer to 0 the score is, the higher is the amount of neutralization used. Therefore, the first method assesses the frequency (i. e., the number of items neutralized out of the total),

while the second method evaluates the overall magnitude (i. e., the amount by which the sentence is reduced) of the neutralization. Higher scores on the method of computing the scale that assesses the frequency of neutralization, but lower scores on the magnitude component are indicative of an increasing use of neutralization.

Although evidence for the psychometric properties of the original and revised measures of neutralization is limited, a study conducted by Shields and Whitehall (1994) has demonstrated that the instrument was reliable, valid, and sensitive to differences between delinquents and nondelinquents. Research among adult offenders (Atkinson, 1998) has further established the superiority of using the revised version (i. e., Neutralization Measure - Modified) of Shields and Whitehall's (1991) Neutralization Scale, which computes the total scale score using two different methods (i. e., Frequency and Magnitude).

Offender Intake Assessment

The Offender Intake Assessment (OIA) is a comprehensive and integrated evaluation of offenders that has been used by the Correctional Service of Canada since 1994. It examines a broad range of factors pertaining to offenders at their time of admission. As such, the OIA serves as the fundamental basis for determining offenders' institutional placement and correctional plan.

One of the two components of the OIA, the Criminal Risk Assessment (CRA), provides comprehensive information pertaining to the criminal history record of each offender, including details on past and current criminal offences. The CRA also presents the overall risk rating (i. e., low, medium, or high) assigned to offenders at their time of admission.

The second component of the OIA, the Case Needs Identification and Analysis (CNIA), records a wide variety of criminogenic need areas that are grouped into seven domains, with each domain consisting of multiple indicators. They include associates/social interaction (11 indicators), attitudes (24 indicators), community functioning (21 indicators), employment (35 indicators), marital/family (31 indicators), personal/emotional (46 indicators), and substance abuse (29 indicators). Following careful consideration of several sources of information, offenders are rated by a case management officer on a 4-point scale ranging from “factor seen as an asset to community adjustment” to “considerable need for improvement”.

For the purpose of the present study, offenders’ scores on each domain were dichotomized to ease interpretation. More specifically, ratings of “factor seen as an asset to community adjustment” and “no need for improvement” were not considered problematic whereas ratings of “some need for improvement” and “significant need for improvement” were considered as a problem area for offenders.

Statistical Information on Recidivism-R1

The general recidivism instrument used by CSC and the National Parole Board (NPB) is the Statistical Information on Recidivism-R1 (SIR-R1) Scale (Nuffield, 1982). This empirically derived risk assessment instrument is a revised version of the earliest General Statistical Index for Recidivism that was originally developed based on a large sample of federally incarcerated offenders in Canada. Extensive criminal and demographic information was obtained on each offender, and analyzed in relation to recidivism. Variables that were found to best predict post-release rates of recidivism were

selected to form the scale. These items, which are largely static in nature, produced a 15-item checklist with a range of scores from -27 (i. e., high risk) to +30 (i. e., low risk).

In addition to raw risk scores, a grading system for quantifying offenders' risk level was devised. More precisely, offenders are allocated to a level of risk on a 5-point scale, ranging from "Very Good" (i. e., least likely to recidivate) to "Poor" (i. e., most likely to recidivate). In addition to the original study (Nuffield, 1982), several subsequent research undertakings have validated the predictive validity of the instrument and demonstrated the stability of the classification system (i. e., recidivism rates by risk level) over time (Hann and Harman, 1989; Wormith and Goldstone, 1984; Bonta, Harman, Hann and Cormier, 1996). In spite of this, offenders in this study were matched on risk level using the quantitative or continuous grading system.

Offenders are usually scored on the SIR-R1 Scale by case management officers upon admission to the institution. As CSC's policy excludes the application of the SIR-R1 to Aboriginal federal offender populations (Standard Operating Practice 700-04), the risk level for the majority of Aboriginal offenders in the present study was determined using data drawn from the Criminal Risk Assessment (CRA) of the Offender Intake Assessment (OIA), which categorizes offenders as being at a "low", "medium", or "high" risk of recidivism.

Prior Treatment

Previous research has suggested that treatment is a cumulative process, and as such, that recidivism is reduced with each prior episode of treatment (Merrill, Alterman, Cacciola and Rutherford, 1999). As part of the matching process of offenders in the

treatment and comparison groups, the present study attempted to control for the potential impact of prior treatment on offenders' success upon release in the community.

Prior treatment was defined as the overall number of successful completion of any of the core programs offered by the Correctional Service of Canada. These included the Cognitive Skills program, the Anger and Other Emotions Management program, the Violence Prevention program, as well as any intensity of Substance Abuse, Sex Offender, and/or Family Violence Prevention programs. Information on prior treatment was obtained through the Offender Management System (OMS).

Post-Release Outcome

For the purpose of the present investigation, three criterion variables were used to examine the effectiveness of the Counter-Point program on reduced rates of recidivism. Recidivism after release was defined as the presence of any suspension, revocation, or new offence. As opposed to new offences, suspensions could occur prior to violations or due to noncompliance with conditions of release, or if the offender was judged unmanageable or at risk to reoffend. The decision to suspend an offender could be made by the supervising Parole Officer, the community manager, or the National Parole Board. As a result of a suspension, the offender was arrested and placed in a local jail for an interview and further assessment. After reviewing the case, a decision to cancel the suspension and release the offender back into the community, or revoke the offender's release was made.

Recidivism data was obtained through two sources of information, the Royal Canadian Mounted Police (i. e., CPIC records), which is a national database of criminal arrests and convictions, and the Offender Management System (OMS). OMS is a national

database operated by the Correctional Service of Canada and the National Parole Board that provides information on release dates, types of release, dates of, as well as rationale for, suspensions and revocations. Following release, only records of criminal activity committed on or prior to, June 30th, 2003 (i. e., follow-up end date) were included in the present study.

Time-at-Risk

Given that the present investigation did not allow for random assignment of offenders in the treatment and comparison groups, time-at-risk in the community, which was defined as the number of days an offender was free to commit an offence of any kind, was calculated and controlled for. This included all days the offender spent while not being incarcerated, or not on an escorted temporary absence as well as any days spent while whereabouts were unknown. Not included were days the offender spent in federal and/or provincial custody, on suspension, on arrest, or on hold prior to a court appearance.

These days began at the program start date and at release, for Counter-Point participants and offenders selected for the comparison group, respectively. Unless a new offence was committed, which automatically terminated the calculation of days of opportunity for the uncensored cases of suspensions and revocations (i. e., offenders who were not suspended and/or revoked), for all three outcome variables, offenders were followed up to June 30th, 2003.

Missing Values

Missing values on the psychometric measures were scored as the median response for the rest of the data set. However, with the exception of the Identification with

Criminal Others sub-scale of the Criminal Sentiment Scale - Modified, participants' data on any pre- and/or post-sub-scale that contained more than 10% of missing values were deleted. The ICO contains only 6 items, and as such, a more liberal approach was used for that sub-scale. Participants' data on pre- and/or post-responses to the ICO sub-scale that contained more than 2 items missing (i. e., more than 33% of missing values) were deleted.

RESULTS

Individual Measures of Antisocial Attitudes and Neutralization

Descriptive Analyses

The descriptive statistics for the psychometric instruments used in this study are presented in Table 1. These include number of items, mean, standard deviation, and range for both pre- and post-assessments. With one exception, pre- and post-ranges of scores were similar. The exception related to the magnitude approach of computing the Neutralization Measure - Modified, which had a lower value as a minimum boundary for the range at pre- relative to post-testing. Closer inspection of the data indicated that this discrepancy was the end result of the scores obtained by one single offender who showed an excessively high level of approval for the use of techniques of neutralization at both testing sessions, but principally during pre-assessment.

An examination of the frequency distributions of scores obtained for each instrument further indicated the presence of an apparent floor (i. e., ceiling in the case of the magnitude of neutralization) effect regarding some methods of measurement. For all individual measures, maximum values for the range at both pre- and post-assessments were principally due to simply one, or at most only a few, offenders scoring in the elevated or high end. In other words, the distributions of scores on all measures were noticeably skewed, reflecting a markedly low level of endorsement of the specific construct being assessed.

Although the frequency distributions of scores pertaining to the Attitudes towards the Law, Courts, Police sub-scale as well as the Pride in Delinquency Scale were not too remarkable either, the least normally distributed frequencies of scores were observed for

Table 1
Descriptive Statistics for the Psychometric Measures

Measure	# of items	Mean		SD		Range	
		Pre	Post	Pre	Post	Pre	Post
PID		n = 339	n = 223				
Total	10	55.42	46.02	39.32	37.16	0 - 166	0 - 164
CSS-M		n = 339	n = 204				
ALCP	25	13.67	10.72	8.39	8.37	0 - 42	0 - 40
CSS-M		n = 339	n = 219				
ICO	6	3.53	2.86	2.10	2.13	0 - 11	0 - 10
CSS-M		n = 339	n = 218				
TLV	10	4.56	2.99	3.74	3.30	0 - 17	0 - 17
NM-M		n = 339	n = 217				
Frequency	35	2.74	2.72	4.12	4.66	0 - 21	0 - 23
NM-M		n = 339	n = 217				
Magnitude	35	31.62	32.67	4.01	3.49	8 - 35	17 - 35

Note. PID = Pride in Delinquency; CSS-M = Criminal Sentiments Scale - Modified; ALCP = Attitudes towards the Law, Courts, Police; TLV = Tolerance for Law Violations; ICO = Identification with Criminal Others; NM-M = Neutralization Measure – Modified, for all abbreviations.

all three instruments designed to measure the neutralization construct. While for all measures, pre- and post-standardized skewness scores were well above the criterion value of 2, only pre- and post-standardized kurtosis scores for both methods of computing the Neutralization Measure – Modified and post-scores on the TLV sub-scale were considered significantly different from chance to be problematic (see Table 2).

Table 2
Standardized Skewness and Kurtosis Scores for the Measures

Measure	<i>Z_{skewness}</i>		<i>Z_{kurtosis}</i>	
	Pre	Post	Pre	Post
Pride in Delinquency Scale				
Total	4.70	5.20	1.10	1.08
Criminal Sentiments Scale – Modified				
ALCP	4.67	6.09	1.73	0.39
Criminal Sentiments Scale – Modified				
ICO	5.78	5.79	1.31	1.56
Criminal Sentiments Scale – Modified				
TLV	5.70	7.91	0.30	2.15
Neutralization Measure – Modified				
Frequency	14.14	14.74	3.36	4.28
Neutralization Measure – Modified				
Magnitude	-12.38	-12.30	3.82	3.64

Reliability Analyses

In order to assess the reliability of the instruments used in the present investigation, internal consistency analyses were performed using Cronbach's coefficient alpha. As reported in Table 3, the range of coefficient alpha results was $\alpha = .49$ to $\alpha = .91$ for pre- and $\alpha = .57$ to $\alpha = .92$ for post-assessments, with all measures exhibiting similar internal reliability at first- and second-testing. These findings suggested that, with the exception of the Identification with Criminal Others sub-scale, all instruments demonstrated modest to relatively high internal reliability, indicating that the items comprising the measures were consistent with one another. Inspection of the item-total

correlation matrix further failed to provide evidence that deleting any of the items would have increased the coefficient alpha in any meaningful or practically influential way.

Table 3
Reliability Analysis for the Psychometric Measures

Measure	Coefficient Alpha	
	Pre	Post
Pride in Delinquency Scale		
Total	.89 (339)	.90 (223)
Criminal Sentiments Scale - Modified		
Attitudes towards the Law, Courts, Police	.88 (339)	.89 (204)
Identification with Criminal Others	.49 (339)	.57 (219)
Criminal Sentiments Scale - Modified		
Tolerance for Law Violations	.75 (339)	.76 (218)
Neutralization Measure - Modified		
Frequency	.88 (339)	.91 (217)
Magnitude	.91 (339)	.92 (217)

Note. Number of cases (n) in parentheses.

Correlational Analyses

Despite the fact that internal consistency analyses have indicated that, for the most part, the instruments used in the present study were reliable, there still existed some potential threats to validity. In order to examine this issue more systematically, all individual scales/sub-scales that assessed the same construct were subjected to correlational analyses. Results from these analyses for both pre- and post-assessment data are displayed in Tables 4 and 5 for the antisocial attitudes and the neutralization constructs, respectively.

Table 4

Correlations Between the Antisocial Attitudes Measures

Measure	Attitudes towards the Law, Courts, Police		Identification with Criminal Others	
	Pre	Post	Pre	Post
Identification with Criminal Others	.48** (339)	.57** (202)		
Pride in Delinquency	.52** (339)	.55** (200)	.50** (339)	.46** (215)

Note. Number of cases (n) in parentheses.

** $p < .01$.

Table 5

Correlations Between the Neutralization Measures

Measure	Tolerance for Law Violations		NM-M Frequency	
	Pre	Post	Pre	Post
NM-M Frequency	.12* (339)	.22** (205)		
NM-M Magnitude	.34** (339)	.33** (208)	.33** (339)	.27** (217)

Note. Number of cases (n) in parentheses. NM-M Magnitude was reverse-keyed for ease of comparison.

* $p < .05$. ** $p < .01$.

Evidence for the concurrent validity of the individual measures of antisocial attitudes was provided from inspection of Table 4. As can be noted, the Pride in Delinquency Scale, the Attitudes towards the Law, Courts, Police sub-scale and the Identification with Criminal Others sub-scale were moderately related with one another at both pre- and post-testing. Slightly lower coefficients were observed for correlations

involving the ICO sub-scale. Table 5 however suggested considerably weaker associations among the instruments measuring the neutralization construct. In spite of all reaching statistical significance ($p < .05$ or $p < .01$), ranging from $r = .12$ to $r = .34$, the coefficients were fairly weak. By far, the frequency of neutralization fared the worst.

The correlations between the antisocial attitudes and the neutralization measures are presented in Tables 6 and 7. Specifically, Table 6 displays the correlations between pre- and post-scores while Table 7 provides details about the associations between pre- and post-change scores on the instruments.

With the exception of some analyses involving the frequency of neutralization, scores on the measures of antisocial attitudes and neutralization were significantly correlated at both pre- and post-assessments (see Table 6). This reflected a positive relationship between antisocial attitudes and neutralization as offenders who tended to endorse more antisocial attitudes also used more techniques of neutralization. By far, ranging from $r = .42$ to $r = .72$, the correlation coefficients involving the Tolerance for Law Violations sub-scale as a measure of neutralization were the strongest.

With relatively similar coefficients, no apparent differences were observed between the correlations involving the various instruments of antisocial attitudes. In other words, when examining the relationship between antisocial attitudes and neutralization, no gain in validity was readily evident by using one instrument over the other to assess the concept of antisocial attitudes. Clearly though, excluding the results obtained on the Pride in Delinquency Scale, pre-scores' correlations between all measures were weaker than those pertaining to post-assessments.

Table 6

Correlations Between Measures of Antisocial Attitudes and Neutralization

Measure	Neutralization					
	TLV		Frequency		Magnitude	
	Pre	Post	Pre	Post	Pre	Post
CSS - M						
ALCP	.66** (339)	.72** (202)	.08 (339)	.23** (195)	.27** (339)	.27** (195)
ICO	.52** (339)	.55** (216)	.03 (339)	.18** (210)	.20** (339)	.28** (210)
PID						
Total	.56** (339)	.47** (214)	.13* (339)	.08 (213)	.32** (339)	.23** (213)

Note. Number of cases (n) in parentheses. NM-M Magnitude was reverse-keyed for ease of comparison.

* $p < .05$. ** $p < .01$.

Table 7

Correlations Between Change Scores on Measures of Antisocial Attitudes and Neutralization

Measure	Neutralization		
	TLV	Frequency	Magnitude
Criminal Sentiments Scale - Modified			
ALCP	.58** (202)	.18* (195)	-.04 (195)
ICO	.39** (216)	.08 (210)	.08 (210)
Pride in Delinquency Scale			
Total	.31* (214)	.10 (213)	.02 (213)

Note. Number of cases (n) in parentheses. NM-M Magnitude was reverse-keyed for ease of comparison.

* $p < .05$. ** $p < .01$.

Consistent with previous findings, Table 7 further indicated that correlations between pre- and post-change scores between the antisocial attitudes and the

neutralization measures were stronger using the Tolerance for Law Violations sub-scale as opposed to any other measure of neutralization. For the most part, the sign of the correlation coefficients provided some indication that post-treatment reductions in antisocial attitudes were associated with decreases in the use of techniques of neutralization.

In addition, pre-post correlations coefficients (see Table 8) designed to assess the stability of the antisocial attitudes and the neutralization instruments suggested a modest degree of correspondence in offenders' relative location prior to, compared to upon completion of, the program. As can be observed from the table of results, ranging from $r = .42$ to $r = .73$, all correlation coefficients reached statistical significance ($p < .01$, two-tailed).

Table 8

Pre-Post Correlations on Measures of Antisocial Attitudes and Neutralization

Measure	<i>r</i>
Pride in Delinquency Scale	
Total	.54** (223)
Criminal Sentiments Scale - Modified	
Attitudes towards the Law, Courts, Police	.73** (204)
Identification with Criminal Others	.42** (219)
Criminal Sentiments Scale - Modified	
Tolerance for Law Violations	.55** (218)
Neutralization Measure - Modified	
Frequency	.47** (217)
Magnitude	.47** (217)

Note. Number of cases (n) in parentheses.

** $p < .01$.

Additional evidence for the dynamic validity of the antisocial attitudes and the neutralization measures was provided from an examination of the changes in scores obtained at retest for different categories of offenders. As noted in Table 9, following participation in Counter-Point, the levels of antisocial attitudes and neutralization endorsed decreased for the majority of offenders. Still, post- versus pre-program scores on the various psychometric instruments remained the same for some offenders, and increased for others.

Table 9

Post- versus Pre-program Movement in Levels of Antisocial Attitudes and Neutralization on the Individual Measures

Measure	% of Offenders		
	Decrease	No Change	Increase
Pride in Delinquency Scale			
Total (n = 223)	58.3	6.3	35.4
Criminal Sentiments Scale - Modified			
ALCP (n = 204)	63.3	8.3	28.4
ICO (n = 219)	48.4	26.9	24.7
Criminal Sentiments Scale - Modified			
TLV (n = 218)	74.8	5.5	19.7
Neutralization Measure - Modified			
Frequency (n = 217)	34.6	32.7	32.7
Magnitude (n = 217)	47.5	24.0	28.5

Note. NM-M Magnitude was reverse keyed for ease of comparison.

Mean Differences Pre- and Post-Program

Mean differences for changes in scores pre- and post-program for the measures of antisocial attitudes and neutralization are reported in Table 10. The results were obtained using paired sample t-tests. Apart from the frequency of neutralization, all instruments

exhibited statistically significant change ($p < .01$, two-tailed), indicating a reduction in the endorsement of antisocial attitudes and/or in the approval for the use of techniques of neutralization following participation in the program. This occurred despite the fact that, on average, offenders scored relatively low on all measures, and principally on instruments designed to assess the construct of neutralization. Besides providing supplementary evidence for the dynamic validity of the assessment instruments, these findings offered support for the fact that the Counter-Point program was successful at altering antisocial attitudes and reducing the use of neutralization.

Table 10

Paired Sample t-test on the Measures

Measure	Mean		SD		<i>D</i>	<i>t</i>
	Pre	Post	Pre	Post		
Pride in Delinquency Scale						
Total (n = 223)	53.20	46.02	38.58	37.16	7.18	2.94*
Criminal Sentiments Scale -Modified						
ALCP (n = 204)	13.29	10.72	8.74	8.37	2.57	5.79*
ICO (n = 219)	3.39	2.86	2.08	2.13	.53	3.48*
Criminal Sentiments Scale - Modified						
TLV (n = 218)	4.41	2.99	3.75	3.30	1.42	6.23*
Neutralization Measure - Modified						
Frequency (n = 217)	2.56	2.72	3.86	4.66	-.16	-.53
Magnitude (n = 217)	-31.78	-32.67	3.89	3.49	.89	3.41*

Note. NM-M Magnitude was reverse-keyed for ease of comparison.

* $p < .01$.

Derived Measures of Antisocial Attitudes and Neutralization

Based on the results obtained on the individual instruments of antisocial attitudes and neutralization, a single measure designed to best reflect each concept was derived. In addition to the ease of interpretation, the rationale behind creating a single overall score was to minimize the chance of capitalizing on random variability, and as a result, improve upon the generalizability of the findings obtained in this study. Appendix D provides a detailed description of the methodology used to accomplish this objective. Details pertaining to the psychometric properties of the resulting derived measures are presented in the following section.

Descriptive, Reliability, and Correlational Analyses of the Derived Measures

The descriptive statistics pertaining to both derived measures are displayed in Table 11. Although the standard deviations of both instruments were slightly higher at pre- versus post-assessment, the newly developed scales exhibited smaller ranges of scores at first- rather than second-testing. An examination of the frequency distributions of scores and of the standardized skewness and kurtosis scores for the two measures further indicated slightly more normal distributions at pre- versus post-test, with both assessments of neutralization expectedly revealing a larger skew. Once again, the upper limits for the ranges of scores on both derived instruments were affected by only a few extreme positive values, suggesting that the great majority of offenders endorsed considerably low levels of the two constructs under investigation.

Table 11
Descriptive Statistics of the Derived Measures

Measure	# of items	Mean		SD		Range	
		Pre	Post	Pre	Post	Pre	Post
Antisocial Attitudes		n = 339	n = 198				
Total	41	72.62	59.15	45.43	42.92	0-190	0-199
Neutralization		n = 339	n = 208				
Total	45	-27.07	-29.60	6.34	5.57	-35-(-4)	-35-(-4)

Reliability analyses for both derived measures, which were performed using Cronbach's coefficient alpha, further revealed a modest to high degree of internal consistency. These findings suggested that the derived instruments were reliable measures of antisocial attitudes and neutralization. As reported in Table 12, pre- and post-assessment coefficient alpha results were $\alpha = .87$ and $\alpha = .88$ for the antisocial attitudes measure, and $\alpha = .69$ and $\alpha = .71$ for the neutralization measure, respectively. As anticipated, the lower coefficient alphas previously obtained on the Identification with Criminal Others sub-scale of the CSS-M did not have a detrimental impact on the overall reliability of the derived measure of antisocial attitudes.

Table 12
Reliability Analyses of the Derived Measures

Measure	Coefficient Alpha	
	Pre	Post
Antisocial Attitudes	.87 (339)	.88 (198)
Neutralization	.69 (339)	.71 (208)

Note. Number of cases (n) in parentheses.

Results obtained from performing pre-post correlations on the derived measures further indicated a moderate level of correspondence in the way offenders changed from pre- to post-assessments. For antisocial attitudes and neutralization respectively, correlation coefficients were $r = .59$ ($n = 198$) and $r = .62$ ($n = 208$), which reached statistical significance ($p < .01$, two-tailed). Similar to the findings obtained on the individual instruments, these results suggested that offenders' relative position with regard to their level of endorsement of antisocial attitudes and neutralization varied to some extent at post- versus pre-program assessments.

In spite of this, Table 13 clearly illustrated that the great majority of offenders demonstrated a reduced level of endorsement of antisocial attitudes and approval for the use of techniques of neutralization following exposure to the program. Nonetheless, with regard to both constructs, some offenders remained at the same level while others still showed an increased level of endorsement of antisocial attitudes and neutralization at post-program assessment. In addition to provide additional evidence of dynamic validity, these findings once again tended to indicate that Counter-Point was successful at reducing its intermediate targets of change.

Table 13

Post- versus Pre-program Movement in the Levels of Antisocial Attitudes and Neutralization on the Derived Measures

Measure	% of Offenders		
	Decrease	No Change	Increase
Antisocial Attitudes ($n = 198$)	62.6	1.5	35.9
Neutralization ($n = 208$)	66.4	7.2	26.4

As expected, correlational analyses performed on the two measures demonstrated that the antisocial attitudes and the neutralization concepts were significantly related to one another ($p < .01$, two-tailed). Correlation coefficients between the derived measures were $r = .58$ ($n = 339$) and $r = .53$ ($n = 188$) at pre- and post-assessments, respectively. These findings indicated that offenders who held more antisocial attitudes also made a greater use of techniques of neutralization. In contrast, results obtained from conducting a correlational analysis between pre- and post-change scores failed to indicate that a reduction in antisocial attitudes was associated with a reduction in the use of techniques of neutralization. The correlation coefficient was $r = .13$ ($n = 188$), which failed to reach statistical significance.

Mean differences for changes in scores pre- and post-program on the derived measures of antisocial attitudes and neutralization were computed using paired sample *t*-tests (see Table 14). Consistent with the findings obtained on the individual instruments, the results revealed a reduction in the approval of attitudes supportive of criminal conduct as well as for the use of techniques of neutralization following participation in the program.

Table 14

Paired Sample *t*-test on the Derived Measures of Antisocial Attitudes and Neutralization

Measure	Mean		SD		<i>D</i>	<i>t</i>
	Pre	Post	Pre	Post		
Antisocial Attitudes ($n = 198$)	70.65	59.15	46.52	42.95	11.50	3.96*
Neutralization ($n = 208$)	-27.38	-29.59	6.28	5.57	2.21	6.15*

* $p < .01$.

Predictive Criterion Validity of the Individual and the Derived Measures

Overall, the individual and the newly created measures of antisocial attitudes and neutralization appeared to be promising in properly assessing, as well as revealing change in the level of endorsement of, the concepts. The findings so far obtained offered support for the reliability as well as for the convergent, construct and dynamic validity of the individual as well as the derived assessment instruments. Still, evidence for the predictive and dynamic predictive criterion validity of the measures remained to be provided. The following series of analyses were designed to address this issue.

In order to put the findings into perspective, the readers are first presented with the means and standard deviations of the dependent variables (see Table 15). The table of results illustrates that, following exposure to the Counter-Point program, 27% of the sample was suspended, 20% was revoked, and 34% committed a new offence.

Table 15

Base Rates and Other Descriptive Statistics for the Dependent Variables (N = 339)

Dependent Variable	Mean	Mean Follow-up Time (Days)	Standard Deviation
Suspensions (0 = no, 1 = yes)	.27	468	.45
Revocations (0 = no, 1 = yes)	.20	504	.40
New Offences (0 = no, 1 = yes)	.34	561	.47

Predictive criterion validity estimates are reported in Tables 16, 17 and 18. The tables of result display the simple correlation coefficients between rates of recidivism and the various measures of both antisocial attitudes and neutralization. While Table 16 specifically reports on the pre- and post-associations between the criterion variables and the psychometric measures, Tables 17 and 18 present the simple correlation coefficients

between rates of recidivism and changes in scores on the various measures of antisocial attitudes and neutralization. All tables present the findings only for those offenders who, in addition to have completed the program, have participated in the post-program assessment battery.

To be more precise, Table 17 reports on the difference between the later and the earlier scores as defined by a subtraction (i. e., post-assessment score minus pre-assessment score). This operational definition of change scores is also known as the raw gains (Menard, 1991). In contrast, Table 18 reports on the residual gains, which represent the change scores taking into account, or controlling for, the initial level or value on the variable whose change is being described, which can potentially influence the amount of change that occurs (Menard, 1991). In other words, as opposed to raw gains, residual gains control for pre-assessment scores. For the purpose of the present investigation, residual gains were calculated, using linear regression techniques, by regressing post-assessment scores on pre-assessment scores, and saving the expected value of the post-assessment scores. Residual gains then simply represented the difference between the actual and the expected values of the post-assessment scores (i. e., actual post-assessment score minus expected post-assessment score).

The *R* statistics reported in the tables of results were obtained using a mixture of linear and logistic regression analysis techniques. Specifically, using logistic regression analyses, the outcome variables were sequentially regressed on each independent variable, and the predicted values of the dependent variables were saved. Next, using a bivariate linear regression routine, values for the magnitude of *R* were calculated with the observed value of the dependent variable as the independent variable and the predicted

Table 16

Comparison of Pre-/Post-Assessments in Predictive Criterion Validity for the Measures of Antisocial Attitudes and Neutralization

Measure	Suspensions	Revocations	New Offences
ALCP (n = 204)			
Pre	.00	.07	-.06
Post	.11	.14*	.03
ICO (n = 219)			
Pre	.03	.07	.05
Post	.07	.06	.05
PID (n = 223)			
Pre	.04	.12	.01
Post	.18**	.21**	-.02
Derived Antisocial Attitudes (n = 198)			
Pre	.05	.12	-.02
Post	.14*	.22**	-.03
NM-M Frequency (n = 217)			
Pre	-.08	-.01	-.05
Post	-.02	-.08	-.13
NM-M Magnitude (n = 217)			
Pre	.06	.00	.10
Post	.04	-.02	-.01
TLV (n = 218)			
Pre	-.05	.08	-.06
Post	.02	.08	.05
Derived Neutralization (n = 208)			
Pre	.02	.05	.02
Post	.03	.03	.01

Note. NM-M Magnitude was reverse-keyed for ease of comparison.

* $p < .05$. ** $p < .01$.

Table 17

Predictive Criterion Validity of the Raw Gains in Antisocial Attitudes and Neutralization

Measure	Suspensions	Revocations	New Offences
ALCP (n = 204)	.14*	.08	.12
ICO (n = 219)	.04	.00	.01
PID (n = 223)	.15*	.10	-.03
Derived Antisocial Attitudes (n = 198)	.10	.11	-.01
NM-M Frequency (n = 217)	.05	-.06	-.09
NM-M Magnitude (n = 217)	-.03	-.03	-.10
TLV (n = 218)	.08	-.01	.10
Derived Neutralization (n = 208)	.01	.04	.01

Note. NM-M Magnitude was reverse keyed for ease of comparison.

* $p < .05$.

Table 18

Predictive Criterion Validity of the Residual Gains in Antisocial Attitudes and Neutralization

Measure	Suspensions	Revocations	New Offences
ALCP (n = 204)	.16*	.13	.10
ICO (n = 219)	.06	.04	.04
PID (n = 223)	.19**	.19**	-.03
Derived Antisocial Attitudes (n = 198)	.15*	.20**	-.03
NM-M Frequency (n = 217)	.03	-.08	-.12
NM-M Magnitude (n = 217)	.01	-.03	-.06
TLV (n = 218)	.06	.04	.08
Derived Neutralization (n = 208)	.02	-.01	-.01

Note. NM-M Magnitude was reverse keyed for ease of comparison.

* $p < .05$. ** $p < .01$.

value of the dependent variable as the dependent variable. The sign of the R statistics was directly obtained from computing the Pearson linear correlation coefficient between the respective variables.

Values for the correlation coefficients demonstrated that, with regard to the concept of antisocial attitudes, the most valid sets consisted of post-assessment scores on the derived measure of antisocial attitudes, on the Pride in Delinquency Scale and on the Attitudes towards the Law, Courts, Police sub-scale of the Criminal Sentiments Scale - Modified. For all three measures however, predictive validity estimates reached statistically significant levels ($p < .05$ or $p < .01$, two-tailed) only in the cases of revocations and/or suspensions. According to the results obtained on the three instruments, higher levels of antisocial attitudes increased the likelihood of being suspended and/or revoked. With regard to the concept of neutralization however, the overall magnitudes of the associations were considerably weak on all measures, and none of the predictive criterion validity estimate produced significant results.

Further examination of the tables of results provided evidence for the increment in predictive criterion validity obtained when using post- versus pre-assessment scores as independent variables in the analyses. Specifically, although it did not have any substantial effect on the predictive efficacy of neutralization, which remained negligible, using post-program assessment scores instead or pre- generally improved upon the ability of antisocial attitudes to predict the occurrence of suspensions and revocations.

Evidence for the predictive dynamic criterion validity of the antisocial attitudes concept was further provided from inspection of Table 17, and principally Table 18. The tables of results demonstrated that the change scores (i. e., raw and/or residual gains)

pertaining to the Attitudes towards the Law, Courts, Police sub-scale, the Pride in Delinquency Scale, and the derived measure of antisocial attitudes significantly predicted rates of suspensions and/or revocations. The findings also suggested that, compared to raw gains, residual gains were more accurate predictors of the criterion variables. As expected, greater accuracy and consistency in the pattern of results was observed from taking into consideration, in addition to the pre/post amount of change, the initial level of endorsement of the concepts under investigation, which likely influenced the amount of change that occurred.

Indication for the predictive dynamic criterion validity of antisocial attitudes can also be noted from inspection of Table 19. The table of results reports on the actual percentages of recidivists who, controlling for pre-assessment scores, either showed a relative post-program decrease or increase in antisocial attitudes and/or neutralization. The findings suggested that, after adjusting for the initial level on the instrument, recidivism rates for offenders who showed a decrease in antisocial attitudes were lower than for those whose residual scores increased following participation in the program. For example, as measured by the derived instrument of antisocial attitudes, 20.9% of the 110 offenders who, independent of pre-assessment scores, endorsed a lower level of antisocial attitudes post-program were suspended following release whereas 26.1% of the 88 offenders whose residual scores increased received a suspension in the community.

Table 19
Recidivism Rates Within Residual Gains

Measure	Suspensions		Revocations		New Offences	
	Decrease	Increase	Decrease	Increase	Decrease	Increase
ALCP	19.8 (106)	27.6 (98)	12.3 (106)	18.4 (98)	24.5 (106)	27.6 (98)
ICO	23.0 (135)	27.4 (84)	15.6 (135)	14.3 (84)	25.9 (135)	29.8 (84)
PID	19.5 (121)	31.0 (102)	10.6 (121)	20.0 (102)	26.0 (121)	28.0 (102)
Derived Antisocial Attitudes	20.9 (110)	26.1 (88)	11.8 (110)	20.5 (88)	27.3 (110)	25.0 (88)
NM-M Frequency	24.7 (158)	27.1 (59)	16.5 (158)	8.5 (59)	28.5 (158)	23.7 (59)
NM-M Magnitude	24.1 (145)	27.8 (72)	13.1 (145)	16.7 (72)	27.6 (145)	26.4 (72)
TLV	26.0 (127)	23.1 (91)	14.2 (127)	15.4 (91)	26.0 (127)	29.7 (91)
Derived Neutralization	23.4 (128)	27.5 (80)	14.1 (128)	15.0 (80)	29.7 (128)	23.8 (80)

Note. Number of cases (n) in parentheses. NM-M Magnitude was reverse keyed for ease of comparison.

Analyses of the Derived Measures of Antisocial Attitudes and Neutralization Using the Most Recent Assessment Scores

In order to effectively and adequately evaluate the relationships among antisocial attitudes, neutralization, and criminal behaviour, the derived measures were employed with the most recent assessment scores available for each offender. Appendix E provides details pertaining to the procedures employed as well as the decision rules used to accomplish this objective. In the following section, information is also presented on the individual instruments for readers who may be interested in comparing the results.

To begin with, Figures 1 and 2 display the frequency distributions of the derived measures of antisocial attitudes and neutralization, and Table 20 presents the descriptive statistics of all measures using the most recent assessment scores for each offender. As expected from the standardized scores of skewness and kurtosis, the shapes of the frequency distributions were relatively skewed. The findings further indicated that the ranges of scores for both derived measures remained similar to those reported for the overall sample, with the highest values reflecting only one, or at most a few, extreme positive scores.

Figure 1

Frequency Distribution of Scores on the Derived Measure of Antisocial Attitudes

Figure 2

Frequency Distribution of Scores on the Derived Measure of Neutralization

Table 20

Descriptive Statistics of the Derived Measures Using the Most Recent Assessment Scores (N = 300)

Measure	# of items	Mean	SD	Z _{skewness}	Z _{kurtosis}	Range
Antisocial Attitudes	41	65.76	44.70	4.25	0.94	0 - 199
Neutralization	45	-28.43	6.05	9.11	2.94	-35 - 4

Table 21 presents the predictive criterion validity estimates for the individual and the derived measures, further allowing a judgement to be made on the adequacy of using the most recent assessment scores available for each offender to assess the constructs of antisocial attitudes and neutralization, compared to either simply using pre- and/or post-assessment scores. As can be observed, greater accuracy and consistency in the pattern of

results was generally revealed on the derived measures, compared to pre- and/or post-scores on the individual instruments.

Table 21

Predictive Criterion Validity of Antisocial Attitudes and Neutralization

Measure	Suspensions			Revocations			New Offences		
	Pre	Post	MR	Pre	Post	MR	Pre	Post	MR
CSS-M									
ALCP	.00 (339)	.11 (204)		.03 (339)	.14* (204)		.00 (339)	-.03 (204)	
ICO	.04 (339)	.07 (219)		.06 (339)	.06 (219)		.10 (339)	.05 (219)	
PID	.08 (339)	.18** (223)		.07 (339)	.20** (223)		.01 (339)	-.02 (223)	
Derived Measure of Antisocial Attitudes			.17** (300)			.18** (300)			.00 (300)
NM-M									
Frequency	-.03 (339)	-.02 (217)		.01 (339)	-.08 (217)		-.06 (339)	-.13 (217)	
Magnitude	.08 (339)	.04 (217)		.03 (339)	-.02 (217)		.06 (339)	-.01 (217)	
CSS-M									
TLV	-.02 (339)	.02 (218)		-.03 (339)	.08 (218)		-.02 (339)	.05 (218)	
Derived Measure of Neutralization			.05 (300)			.06 (300)			.02 (300)

Note. Number of cases (n) in parentheses. NM-M Magnitude was reverse-keyed for ease of comparison. MR = Most recent assessment score.

* $p < .05$. ** $p < .01$.

Using the most recent assessment scores available for each offender, a correlational analysis performed on the derived measures of antisocial attitudes and neutralization further demonstrated that the concepts were significantly related ($p < .01$, two-tailed). The correlation coefficient was $r = .53$ ($n = 300$), indicating that offenders

who held more antisocial attitudes also made a greater use of techniques of neutralization. This finding was consistent with previous results obtained on pre- and post-assessments of the individual and the derived measures, consequently offering support for the first hypothesis, which predicted a positive relationship between antisocial attitudes and neutralization.

Correlates of Criminal Behaviour

In order to examine the relationships among various demographic, historical and criminogenic indicators of criminal behaviour and the antisocial attitudes and the neutralization concepts, supplementary correlational/regression analyses were conducted. While the correlation coefficients obtained from analyses involving continuous variables (i. e., age, risk, and sentence length) were calculated using linear regression analysis techniques, the *R* statistics purporting to the dichotomous variables (i. e., OIA need domains and criminal history) were obtained, as aforementioned, using a mixture of linear and logistic regression analysis techniques. Results are presented in Tables 22 and 23 for the antisocial attitudes and the neutralization concepts, respectively.

Although preliminary analyses indicated that the individual measures of antisocial attitudes were related to one another, inspection of Table 22 failed to provide evidence for the convergent validity of the antisocial attitudes measures when assessed against an existing indicator of attitudinal problems. Unexpectedly, ranging from $r = .00$ to $r = .09$, the correlation coefficients between the OIA attitude domain and the psychometric assessments of antisocial attitudes were all considerably low, and none reached statistical significance.

Table 22
Correlates of Antisocial Attitudes

	ALCP		ICO		PID		Derived
	Pre	Post	Pre	Post	Pre	Post	Most Recent
Age	-.20** (339)	-.22** (204)	-.03 (339)	-.12 (219)	-.24** (339)	-.26** (223)	-.21** (300)
SIR-R1 ^a	-.07 (301)	-.09 (182)	-.20** (301)	-.18** (195)	-.23** (301)	-.11 (200)	-.17** (266)
Previous Youth Conviction ^a	.19** (281)	.29** (173)	.09 (281)	.32** (186)	.29** (281)	.30** (189)	.26** (247)
OIA Domains ^a							
Associates / Social Intera.	.07 (321)	.17* (190)	.06 (321)	.10 (205)	.12* (321)	.05 (208)	.13* (285)
Attitudes	.00 (321)	.06 (190)	.03 (321)	.03 (205)	.07 (321)	.09 (208)	.09 (285)
Community Functioning	-.01 (321)	.00 (190)	.06 (321)	.15* (205)	-.02 (321)	.10 (208)	.01 (285)
Employment	.02 (321)	.17** (190)	.11 (321)	.19** (205)	.02 (321)	.06 (208)	.10 (285)
Marital / Family	-.01 (321)	.10 (190)	.10 (321)	.11 (205)	.04 (321)	.11 (208)	.12* (285)
Personal / Emotional	-.03 (321)	.16* (190)	.02 (321)	.14* (205)	.05 (321)	.10 (208)	.12* (285)
Substance Abuse	.06 (321)	.20** (190)	.13* (321)	.23** (205)	.21** (321)	.20** (208)	.22** (285)
Sentence Length ^a	-.17** (323)	-.23** (195)	-.04 (323)	-.13 (209)	-.17** (323)	-.05 (212)	-.14* (286)

Note. Number of cases (n) in parentheses.

^aSome cases missing due to unavailability of data.

* $p < .05$. ** $p < .01$.

Table 23
Correlates of Neutralization

	NM-M Frequency		NM-M Magnitude		TLV		Derived
	Pre	Post	Pre	Post	Pre	Post	Most Recent
Age	-.01 (339)	-.04 (217)	-.07 (339)	-.09 (217)	-.16** (339)	-.24** (218)	-.19** (300)
SIR-R1 ^a	.02 (301)	-.07 (194)	-.06 (301)	-.08 (194)	-.09 (301)	-.01 (194)	-.13* (266)
Previous Youth Conviction ^a	-.01 (281)	.12 (185)	.05 (281)	.15* (185)	.11 (281)	.23** (185)	.16* (247)
OIA Domains ^a							
Associates / Social Intera.	-.01 (321)	-.04 (204)	.16** (321)	.04 (204)	.05 (321)	.17* (204)	.13* (285)
Attitudes	.02 (321)	.02 (204)	-.01 (321)	-.05 (204)	-.06 (321)	.09 (204)	.04 (285)
Community Functioning	-.01 (321)	.06 (204)	.04 (321)	.04 (204)	-.06 (321)	.11 (204)	-.03 (285)
Employment	.03 (321)	.08 (204)	.05 (321)	-.03 (204)	.02 (321)	.21** (204)	.07 (285)
Marital / Family	.05 (321)	.07 (204)	.10 (321)	.13 (204)	.06 (321)	.15* (204)	.18** (285)
Personal / Emotional	-.06 (321)	.02 (204)	-.01 (321)	-.05 (204)	-.06 (321)	.09 (204)	.04 (285)
Substance Abuse	.10 (321)	.07 (204)	.19** (321)	.02 (204)	.06 (321)	.19** (204)	.18** (285)
Sentence Length ^a	-.08 (323)	-.06 (206)	-.12* (323)	-.03 (206)	-.19** (323)	-.24** (208)	-.16** (286)

Note. Number of cases (n) in parentheses. NM-M Magnitude was reverse-keyed for ease of comparison.

^aSome cases missing due to unavailability of data.

* $p < .05$. ** $p < .01$.

The findings however suggested that age, risk, and sentence length were inversely, and criminal history and substance abuse positively, related to antisocial attitudes. That is, while decreasing age and time spent in custody, but increasing risk, were indicative of an antisocial orientation, having an identified need on the substance abuse domain as well as having been previously convicted as a juvenile were associated with increasing antisocial attitudes. Simple correlation coefficients between these variables and most of the antisocial attitudes measures reached statistical significance ($p < .05$ or $.01$, two-tailed).

By means of moderate correlations with the various indicators of criminal behaviour examined, it appeared that the derived measure designed to best reflect the concept of antisocial attitudes for the sample used in this study fared the best. In contrast to the results obtained involving the majority of the other antisocial attitudes instruments, the coefficients relating to the derived measure of antisocial attitudes further reached statistical significance ($p < .05$, two-tailed) when subjected to correlational analyses involving other criminogenic need indicators, including the associates/social interaction, marital/family, and personal/emotional OIA domains.

With a few exceptions, neutralization did not seem to consistently associate strongly to neither age, risk, criminal history, various criminogenic need factors, nor sentence length (see Table 23). Having said that, correlation coefficients involving the derived measure of neutralization reached statistically significant levels ($p < .05$ or $.01$, two-tailed) in relation to age, risk, criminal history, associates/social interaction, marital/family relationships, substance abuse, and sentence length. These findings were indicative of a higher approval for the use of techniques of neutralization among younger

and higher risk offenders, as well as offenders for whom marital and/or family relationships together with association and substance use patterns were identified as problem areas. In addition, these results suggested that offenders having been previously convicted in the juvenile criminal justice system and those having received a shorter sentence for their current offence were more likely to endorse neutralizing statements.

These findings demonstrated the relative improvement in validity obtained when using the derived measure over the individual instruments in assessing the concept of neutralization. In spite of this, these results also clearly illustrated that, as opposed to antisocial attitudes, neutralization was only slightly related to the different indices, or potential correlates, of criminal behaviour examined.

Analytic Strategy

Overall, the findings obtained from performing correlational/regression analyses between the various demographic, historical, and reoffending variables demonstrated that, as compared to neutralization, antisocial attitudes seemed to play an important role in criminal behaviour. Furthermore, correlates and predictive criterion validity estimates indicated that, in terms of validity, the results on the derived measures of both antisocial attitudes and neutralization generally equalled or exceeded those obtained using the individual instruments. As a result, impending analyses, which were designed to investigate the relationships among antisocial attitudes, neutralization, and criminal behaviour, were only performed using the two derived measures on the most recent assessment scores available for each offender to represent the concepts of interest.

For the most part, because all three dependent variables were dichotomous, the models derived to were estimated using logistic regression analysis techniques. For

analyses that did not require the inclusion of any dichotomous variables however, linear regression analysis techniques were chosen over logistic regression. As a result, for ease of comparison of the findings obtained in this study not only among themselves, but also with those reported from previous research, relevant estimates obtained from logistic regression procedures were converted to equivalents of commonly reported linear regression coefficients. A brief explanation of the rationale behind the selection of the coefficients for inclusion in the tables of results can be found in Appendix F.

Before attempting to interpret the findings displayed in the tables of results, in order to evaluate how well the logistic regression models fitted the observed data, residuals were examined. For all analyses, doing so failed to indicate the presence of cases that fitted poorly, or that exerted an undue influence on the models. All cases had DFBetas less than one, and the great majority of cases had values for the standardized residuals smaller than ± 2.5 , and predominantly smaller than ± 2.0 . Some of the leverage statistics were a little higher than the calculated expected value of .007, but given that all values lied between 0 and 1 and that the other statistics were acceptable, there was no real cause for concern (Field, 2000). In general therefore, the models represented good fits for the observed data, consequently increasing the level of confidence in the accuracy of the coefficients obtained.

Relationships Among Antisocial Attitudes, Neutralization, and Criminal Behaviour

While the second hypothesis predicted a positive relationship between antisocial attitudes and criminal behaviour, the third hypothesis expected neutralization to act as a moderator variable on that relationship. Furthermore, hypothesis three specifically stated that the effect of neutralization on rates of recidivism was going to be greater for

offenders who scored low on antisocial attitudes. The following series of analyses were conducted to test these predictions.

First, using logistic regression procedures, the three measures of recidivism were regressed on the derived measure of antisocial attitudes. One logistic regression model was derived for each dependent variable, which included antisocial attitudes as a sole predictor variable, and so was aimed at determining whether antisocial attitudes had a main effect on the dependent variable of interest. Findings obtained from these analyses are displayed in Table 24. For the logistic regression models obtained for each dependent variable, the table of results presents the logistic regression coefficient, the deviance chi-square (i. e., DM , which is analogous to the error sum of squares, or SSE, in linear regression analysis) as well as the proportional reduction in chi-square that was accounted for by the regression equation (i. e., R^2_L , which parallels the proportional reduction in error, or R^2 , in linear regression).

Table 24

Standardized Logistic Regression Coefficients for the Logistic Regression Models Predicting Recidivism from Antisocial Attitudes (N = 300)

Variable	Suspensions	Revocations	New Offences
Antisocial Attitudes			
b^*	.17*	.18*	.00
DM	339.57	297.15	383.28
R^2_L	.02*	.03*	.00

* $p < .01$.

Inspection of Table 24 yielded mixed conclusions regarding the main effect of antisocial attitudes on criminal behaviour. While antisocial attitudes had a relatively direct and robust positive impact on rates of recidivism when measured using either

suspensions and/or revocations as a dependent variable, it did not by any means relate to rates of new offences. The standardized logistic regression coefficients and the proportional reductions in chi-square that could be accounted for by the regression equations were $b^* = .17$ and $R^2_L = .02$ ($p < .01$), $b^* = .18$ and $R^2_L = .03$ ($p < .01$), and $b^* = .00$ and $R^2_L = .00$ (*ns*) for rates of suspensions, revocations, and new offences, respectively.

In other words, although there was no main effect of antisocial attitudes on recidivism when the criterion variable was defined as the commission of any new offence, for offenders in this study, higher levels of antisocial attitudes were significantly associated with elevated rates of suspensions and revocations. In terms of absolute magnitude however, the correlations between antisocial attitudes and rates of recidivism for both outcome variables (i. e., suspensions and revocations) were relatively weak. Taken as a whole, it therefore appeared from these findings that support for the second hypothesis was, but only partially, provided.

For exploratory purposes, in order to examine the independent effect of neutralization on criminal behaviour, the same logistic regression analyses were repeated, but using neutralization as a sole predictor variable. The findings obtained from these analyses, which are displayed in Table 25, revealed that neutralization did not have a direct and robust effect on any of the three outcome measures. Standardized logistic regression coefficients and proportional reduction in chi-square were $b^* = .05$ and $R^2_L = .00$ (*ns*), $b^* = .06$ and $R^2_L = .00$ (*ns*), and $b^* = .02$ and $R^2_L = .00$ (*ns*) for rates of suspensions, revocations, and new offences, respectively. In all three cases, although considerably weak, the findings pointed towards a positive relationship between

neutralization and recidivism. In other words, as the level of approval for the use of techniques of neutralization increased, so did the occurrence of suspensions and revocations, as well as the commission of new offences.

Table 25

Standardized Logistic Regression Coefficients for the Logistic Regression Models Predicting Recidivism from Neutralization (N = 300)

Variable	Suspensions	Revocations	New Offences
Neutralization			
<i>b*</i>	.05	.06	.02
<i>DM</i>	347.39	304.73	383.17
<i>R²_L</i>	.00	.00	.00

Despite the fact that neutralization failed to contribute significantly to the prediction of suspensions, revocations, and new offences, there remained the possibility that, when investigated in conjunction with antisocial attitudes, neutralization improved to a considerable extent the predictive validity of antisocial attitudes. In order to examine whether fluctuations in the relationship between antisocial attitudes and neutralization impacted on the prediction of various forms of criminal behaviour, or in other words, whether there was an interaction effect between antisocial attitudes and neutralization when regressed on measures of recidivism, three different logistic regression models were derived for each outcome variable. While Model A included solely antisocial attitudes as a predictor variable, Model B also contained neutralization to determine whether it moderated the effect of antisocial attitudes. In other words, specific attention was paid to the degree to which the strength and/or significance of antisocial attitudes varied upon the inclusion of neutralization in the logistic regression model.

In contrast to Models A and B, Model C also included the interaction term between antisocial attitudes and neutralization. The interaction term was created by standardizing both antisocial attitudes and neutralization, and subsequently multiplying the two standardized variables together. The interaction term itself was not standardized. Model C therefore tested whether antisocial attitudes interacted with neutralization. The results obtained from performing these logistic regression analyses are presented in Tables 26, 27, and 28 for rates of suspensions, revocations, and new offences, respectively.

Consistent with previous observations, Model A indicated that antisocial attitudes was a significant predictor of both suspensions and revocations, but not rates of new offences. To put it briefly, higher levels of antisocial attitudes were associated with an increased likelihood of being suspended and/or revoked, but did not impact on the probability of committing a new offence. With regard to both suspensions and revocations, an observable yet relatively small improvement in deviation chi-square occurred upon addition of neutralization into the logistic regression models (see Model B). In terms of both practical and statistical significance, these results were not too encouraging however (i. e., for suspensions and revocations respectively, $R^2_{L\ change} = .01$ and $.00$, *ns*). Regarding rates of new offences, no predictive gain was further made upon inclusion of neutralization in a model that already contained antisocial attitudes as an independent variable.

Further inspection of the tables of results failed to indicate the presence of a significant interaction effect between antisocial attitudes and neutralization. The absence of an interaction effect suggested that the effect of neutralization on criminal behaviour

Table 26

Standardized Partial Logistic Regression Coefficients for the Logistic Regression Models Predicting Suspensions (N = 300)

Variable	Model A	Model B	Model C
Antisocial Attitudes (b^*)	.17**	.22**	.22**
Neutralization (b^*)		-.07	-.07
Antisocial Attitudes X Neutralization (b^*)			.01
DM	339.57	338.75	338.72
R^2_L	.02**	.03**	.03*

* $p < .05$. ** $p < .01$.

Table 27

Standardized Partial Logistic Regression Coefficients for the Logistic Regression Models Predicting Revocations (N = 300)

Variable	Model A	Model B	Model C
Antisocial Attitudes (b^*)	.18**	.20**	.20**
Neutralization (b^*)		-.04	-.05
Antisocial Attitudes X Neutralization (b^*)			.02
DM	297.15	296.77	296.72
R^2_L	.03**	.03*	.03*

* $p < .05$. ** $p < .01$.

Table 28

Standardized Partial Logistic Regression Coefficients for the Logistic Regression Models Predicting New Offences (N = 300)

Variable	Model A	Model B	Model C
Antisocial Attitudes (b^*)	.00	-.02	-.02
Neutralization (b^*)		.02	-.01
Antisocial Attitudes X Neutralization (b^*)			.09
DM	383.28	383.12	381.21
R^2_L	.00	.00	.01

did not depend on antisocial attitudes, or did not vary as a function of the levels of antisocial attitudes endorsed. Hypothesis three was therefore not supported. For this reason, there was no need to evaluate the effect of neutralization on rates of recidivism at different values of antisocial attitudes, or in other words, to test for the simple effects of neutralization on criminal behaviour at high, medium, and low levels of antisocial attitudes. For the readers who may be interested, these simple effects were nonetheless computed, and are presented in Appendix H. As required by the analyses, offenders were divided into groups based on their level of endorsement of antisocial attitudes. The methodology employed to accomplish this objective is reported in Appendix G.

In spite of failing to maintain the proposed predictions regarding the relationships among antisocial attitudes, neutralization and criminal behaviour, an unusual yet noteworthy pattern of results emerged. According to the preliminary findings obtained in this study, although a positive relationship was expected between neutralization and both rates of suspensions and/or revocations, upon inclusion of the concept of neutralization in a model that already contained antisocial attitudes as a predictor variable, the direction of the relationship between neutralization and the two forms of rates of recidivism became negative. Short of reaching statistical significance, standardized partial logistic regression coefficients were $b^* = -.07$ and $b^* = -.04$ for rates of suspensions and revocations, respectively.

In contrast, despite the fact that previous analyses have demonstrated that the effect of antisocial attitudes on rates of new offences was non-existent, upon addition of neutralization in the regression equation, a small, yet noticeable and surprisingly negative relationship emerged between antisocial attitudes and the dependent variable ($b^* = -.02$,

ns). Neutralization on the other hand was weakly, but positively correlated with rates of new offences ($b^* = .02$, *ns*).

According to such results, higher levels of antisocial attitudes in combination with lower levels of neutralization were indicative of an increased likelihood of having been suspended and/or revoked. However, lower levels of antisocial attitudes, but higher levels of neutralization increased the probability of having committed a new offence. In a nutshell, the direction of the association between the strongest predictor variable and the dependent variable remained the same (i. e., in this case, positive), while the direction of correlation between the weakest predictor variable and the dependent variable reversed (i. e., in this case, became negative).

The Effect of the Counter-Point Program on Recidivism

The fourth hypothesis was concerned with the impact of the Counter-Point program on reduced rates of recidivism. It was predicted that, controlling for risk and prior treatment, rates of recidivism for offenders who participated in Counter-Point were going to be lower than those obtained for the matched offenders who were not exposed to the program. As a result of the matching procedure, seven Counter-Point participants were dropped from the study. Specifically, the list of potential candidates for the selection of participants in the comparison group became exhausted before it proved possible to find compatibles for all offenders comprised in the treatment group. The final analyses were therefore conducted on a sample totalling 664 offenders, equally divided between the treatment and comparison groups.

Between-Group Comparisons Analyses

Given that participants were not assigned randomly to treatment, the first series of analyses involved comparing the two groups of offenders to determine whether offenders selected for Counter-Point differed in some way from the matched offenders who did not participate in the program. To do so, between-group comparison analyses were conducted on a variety of criminogenic variables as well as other historical and demographic variables. More specifically, independent sample t-tests were performed to compare the age, prior treatment, sentence length, and risk level of both groups of offenders while Chi-square analyses were carried out to compare the groups on racial composition, marital status, criminogenic need ratings, and criminal history. Findings are reported in Tables 29, 30, and 31.

As expected following strict adherence to the established matching criteria, the two groups of offenders did not significantly differ on risk and prior treatment. For the treatment and comparison groups respectively, means SIR-R1 scores were -1.35 and -1.43, and the number of previous correctional programs successfully completed were 1.70 and 1.57. As noted in Table 29, Counter-Point participants and matched offenders were also similar in terms of age. Specifically, the mean age of the treatment group was 34.99, and the one relating to the comparison group was 35.57. Furthermore, although almost twice as many offenders who received treatment were serving a life sentence (i. e., 15 offenders as compared to 8 in the comparison group), the overall difference between the two groups with regard to sentenced time in custody failed to reach statistical significance. In years, means were 4.87 and 5.25 for the treatment and comparison groups, respectively.

Table 29

Mean Differences on Continuous Variables for Program Participants and Comparison Offenders

	Group		<i>t</i>
	Counter-Point	Comparison	
Age	34.99 (332)	35.57 (332)	-.77
Risk (SIR-RI) ^a	-1.35 (294)	-1.43 (302)	.10
Prior Treatment (# previous programs)	1.70 (332)	1.57 (332)	1.33
Sentence Length (years)	4.87 (317)	5.25 (324)	-1.22

Note. Number of cases (n) in parentheses.

^aSome cases missing due to unavailability of data.

Table 30

Racial Composition and Marital Status for Program Participants and Comparison Offenders

	Group	
	% Counter-Point (n = 332)	% Comparison (n = 332)
Racial Composition		
Caucasian	74.4	68.7
Native	11.7	12.4
Black	8.1	12.3
Asian	3.9	4.2
Arab	0.3	0.9
Hispanic	0.6	0.6
Other	0.9	0.6
Marital Status		
Common Law	35.5	32.8
Single	47.6	46.4
Married	10.2	11.7
Divorced	3.3	5.1
Separated	3.0	3.9
Widowed	0.3	0

Table 31
Criminogenic Need Ratings for Program Participants and Comparison Offenders

	Group		χ^2
	% Counter-Point (n = 319)	% Comparison (n = 332)	
OIA Domains			
Associates/Social Interaction	60.2	73.2	12.41**
Attitudes	49.5	63.6	13.03**
Community Functioning	33.9	50.6	18.68**
Employment	48.0	60.5	10.38**
Marital/Family	31.7	49.4	21.20**
Personal/Emotional	68.0	83.7	22.04**
Substance Abuse	53.9	68.1	13.72**

Note. Some cases missing due to unavailability of data.

** $p < .01$.

As presented in Table 30, analyses conducted on the racial composition and marital status of offenders failed to reveal statistical significant differences. For race and marital status respectively, obtained Chi-square statistics were $\chi^2 (1, N = 664) = 4.99, ns$ and $\chi^2 (1, N = 664) = 3.43, ns$. Specifically, in both the treatment and comparison groups, Caucasian was the most frequently depicted race followed by Native and Black. With regard to marital status, the majority of both Counter-Point participants and comparison offenders were either single, common law, or married while the remaining offenders were divorced or separated.

The two groups of offenders were also compared on a selected criminal history criterion, measured as the presence/absence of a previous conviction in the juvenile criminal justice system. Results indicated that 44.8% ($n = 279$) of offenders comprised in

the treatment group and 42.9% ($n = 231$) of those included in the comparison group had previously received a conviction as a youth. This between-group difference failed to reach statistically significant levels, $\chi^2(1, N = 510) = 1.94, ns$.

In contrast, Table 31 suggested that offenders comprised in the two groups were not comparable in terms of criminogenic need. When compared to the sample of potential candidates for Counter-Point, the group of offenders who were actually exposed to at least some of the program content exhibited a significantly lower level of need in all seven domains assessed at intake ($p < .01$, two-tailed). For example, the attitudes of 63.6% of the comparison offenders, but of only 49.5% of the Counter-Point participants, demonstrated to be problematic. Furthermore, 73.2% of the non-participants while only 60.2% of the offenders comprised in the treatment group were at a greater risk with regard to association patterns.

For the purpose of this investigation, a variable representing the overall criminogenic need ratings of offenders was created. This was accomplished by simply summing up, for each participant, the number of OIA domains identified as problem areas. As anticipated, results obtained from performing an independent sample t-test to compare the means of both groups on that newly created indicator of need demonstrated that Counter-Point participants showed significantly less difficulty in criminogenic areas than their matched counterparts ($t_{obs} = -6.57, p < .01$). The mean number of domains identified as problematic was 3.45 ($n = 319$) and 4.49 ($n = 332$) for the treatment and comparison groups, respectively.

Post-Release Outcome Data

Comparisons between the two groups of offenders on recidivism data were initially performed using Kaplan-Meier survival analyses. This type of analysis controlled for the time-at-risk in the community, which was defined in this study as the actual number of days of opportunity to engage in criminal activity. The descriptive analyses relating to the recidivism data are presented in Table 32.

Table 32

Days of Opportunity for Counter-Point Participants and Comparison Offenders

Group					<i>D</i>	<i>t</i>
	Counter-Point (n = 332)		Comparison (n = 332)			
Recidivism	Mean	SD	Mean	SD		
Suspensions	469	369.88	453	537.54	16	.45
Revocations	506	370.82	504	553.53	2	.05
New Offences	565	348.06	581	531.89	-16	-.47

Inspection of the table of results revealed that, on average, with regard to rates of suspensions, revocations, and new offences respectively, Counter-Point participants were released 469, 506, and 565 days whereas offenders in the comparison group were followed for an average of 453, 504, and 581 days. For all three measures of recidivism, results obtained from performing an independent sample t-test on the means indicated that the time-at-risk in the community for the two groups of offenders was similar.

In the present study, the survival data were abridged at 3 years due to the small number of offenders failing beyond this time. This follow-up period is also consistent with the proposition put forward by Luke (1993) when conducting survival analyses.

Figures 3, 4 and 5 depict the survival curves for both the treatment and comparison groups. To be more precise, while Figure 3 presents the results obtained from performing the survival analysis on rates of recidivism when it was defined as suspensions, Figures 4 and 5 report the findings for rates of revocations and new offences, respectively.

Roughly speaking, offenders who participated in the Counter-Point program had a 29% chance of being suspended within 1 year whereas about 39% of offenders comprised in the comparison group had received a suspension. Findings obtained from a log-rank test comparing the two survival curves indicated that they were significantly different from one another, $\chi^2 (1, N = 664) = 10.41, p < .01$. A similar pattern of results was observed when recidivism was measured using rates of revocations and/or new offences. Within a one-year follow-up period, approximately 21% of the treatment group had been revoked and 26% had committed a new offence. Rates of revocations and new offences for the comparison group were around 30% and 37%, respectively. Once again, for both outcome variables, the test statistics for equality of survival distributions demonstrated that the survival functions were significantly different for the two groups of offenders. Log-rank test results were $\chi^2 (1, N = 664) = 6.89, p < .01$ and $\chi^2 (1, N = 664) = 10.06, p < .01$ for revocations and new offences, respectively.

Overall, these findings suggested that participation in the Counter-Point program was associated with reduced rates of suspensions, revocations as well as new offences. However, because the preceding analyses did not control for the initial pre-release difference in criminogenic need that was found between the groups, there remained the possibility that these favourable results were a mere reflection of the influence of this

Figure 3

Survival Rate of Suspensions for Counter-Point Participants and Comparison Offenders

Figure 4

Survival Rate of Revocations for Counter-Point Participants and Comparison Offenders

Figure 5

Survival Rate of New Offences for Counter-Point Participants and Comparison Offenders

variable. For the sample used in this study, correlational/regression analyses conducted between the criterion variables and the overall criminogenic need ratings variable suggested that the criminogenic need assessment was particularly predictive of recidivism. For rates of suspensions, revocations, and new offences respectively, simple correlation coefficients were $r = .30$ ($p < .01$), $r = .27$ ($p < .01$), $r = .26$ ($p < .01$), indicating a relatively strong and positive relationship between the variables.

To address this potential confounding effect, Cox regression analyses were used. In addition to control for time-at-risk, Cox regression procedures will reveal whether participation in the Counter-Point program has an effect on rates of recidivism independent of the pre-release variable that differs between the groups, and that could possibly have an influence on the results. Findings obtained are reported in Tables 33, 34

and 35 for rates of suspensions, revocations, and new offences, respectively. The tables of results present the risk ratio, the 95% confidence interval as well as the Wald test obtained at each step of the regression models.

As can be observed, after controlling for the initial pre-release variable that significantly differed between the groups, participation in the Counter-Point program failed to predict longer survival in the community. For suspensions, revocations and new offences respectively, the obtained test statistics were Wald $\chi^2(1, N = 651) = 1.15$ (*ns*), Wald $\chi^2(1, N = 651) = 0.30$ (*ns*), and Wald $\chi^2(1, N = 651) = 1.62$ (*ns*). In contrast, higher scores on the criminogenic need assessment were associated with a substantial increase in the risk to recidivate. To be more precise, a one-point increase on the overall criminogenic need ratings variable decreased the survival rates for suspensions, revocations, and new offences by 38%, 43% and 27%, respectively. It therefore appeared that the positive results obtained earlier on reduced rates of recidivism were not actually attributable to the effect of Counter-Point, but rather to the fact that offenders comprised in the treatment group demonstrated, at the outset, fewer problems in various criminogenic areas than their comparison counterparts, and so were initially considered less likely to engage in future criminal activity.

Having said that, this research used a conservative approach by leaving drop-outs in the study as participants in the treatment group. To address the issue of treatment attrition, supplementary Cox regression analyses were conducted. Specifically, the analyses examined the relationship between program completion and reduced rates of recidivism. Adjusting for pre-release differences in criminogenic need ratings, the regression models were designed to compare each category of the predictor variable (i. e.,

Table 33

Cox Regression Analysis on Survival Rate for Suspensions of Counter-Point Participants and Comparison Offenders, Controlling for Criminogenic Need Ratings (N = 651)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	82.27*
Criminogenic Need Ratings	1.38	1.28 – 1.48	69.24*
Counter-Point Participation	0.93	0.81 – 1.07	1.15

* $p < .01$.

Table 34

Cox Regression Analysis on Survival Rate for Revocations of Counter-Point Participants and Comparison Offenders, Controlling for Criminogenic Need Ratings (N = 651)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	67.50*
Criminogenic Need Ratings	1.43	1.30 – 1.57	56.97*
Counter-Point Participation	0.96	0.81 – 1.13	0.30

* $p < .01$.

Table 35

Cox Regression Analysis on Survival Rate for New Offences of Counter-Point Participants and Comparison Offenders, Controlling for Criminogenic Need Ratings (N = 651)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	61.39*
Criminogenic Need Ratings	1.27	1.19 – 1.35	50.65*
Counter-Point Participation	0.81	0.81 – 1.05	1.62

* $p < .01$.

program completion defined as attendance to all 25 Counter-Point sessions ($n = 230$), program non-completion defined as attendance to between 1 and 25 sessions ($n = 89$), and non-participation ($n = 332$) to the overall effect of treatment exposure. Results are displayed in Tables 36, 37, and 38 for rates of suspensions, revocations, and new offences, respectively.

Inspection of the tables of results revealed that, even after controlling for differences on the criminogenic need domains, completion of the Counter-Point program predicted longer survival in the community. This effect was observed regardless of how recidivism was defined. For suspensions, revocations, and new offences respectively, Wald $\chi^2 (1, N = 651) = 10.15 (p < .01)$, Wald $\chi^2 (1, N = 651) = 17.74 (p < .01)$, and Wald $\chi^2 (1, N = 651) = 12.18 (p < .01)$. The findings further indicated that, independent of the initial difference on the criminogenic need domains, completion of the Counter-Point program was associated with a 30% reduction in the risk of having been suspended, a 44% reduction in the risk of having been revoked, and a 30% reduction in the risk of having committed a new offence following release.

In contrast, it appeared that program non-completion was significantly related to failure in the community. In fact, offenders who participated in Counter-Point, but prematurely dropped out of the program were 41% more likely of having been suspended, 88% more likely of having been revoked, and 38% more likely of having committed a new offence after release than offenders who either completed the treatment or were not exposed in any way to the program content. The obtained test statistics were

Table 36

Cox Regression Analysis on Survival Rate for Suspensions of Counter-Point Completers and Non-Completers, Controlling for Criminogenic Need Ratings (N = 651)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	91.33*
Criminogenic Need Ratings	1.36	1.26 – 1.46	62.92*
Program Exposure			
Counter-Point Completion	0.70	0.56 – 0.87	10.15*
Counter-Point Non-Completion	1.41	1.10 – 1.82	7.30*

* $p < .01$.

Table 37

Cox Regression Analysis on Survival Rate for Revocations of Counter-Point Completers and Non-Completers, Controlling for Criminogenic Need Ratings (N = 651)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	90.40*
Criminogenic Need Ratings	1.40	1.28 – 1.54	49.49*
Program Exposure			
Counter-Point Completion	0.56	0.43 – 0.73	17.74*
Counter-Point Non-Completion	1.88	1.44 – 2.47	20.90*

* $p < .01$.

Table 38

Cox Regression Analysis on Survival Rate for New Offences of Counter-Point Completers and Non-Completers, Controlling for Criminogenic Need Ratings (N = 651)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	71.99*
Criminogenic Need Ratings	1.25	1.17 – 1.31	42.65*
Program Exposure			
Counter-Point Completion	0.70	0.57 – 0.85	12.18*
Counter-Point Non-Completion	1.38	1.11 – 1.73	8.07*

* $p < .01$.

Wald χ^2 (1, N = 651) = 7.30 ($p < .01$) for suspensions, Wald χ^2 (1, N = 651) = 20.90 ($p < .01$) for revocations, and Wald χ^2 (1, N = 651) = 8.07 ($p < .01$) for rates of new offences.

Using the Bonferroni approach for post-hoc comparisons, between-group analyses conducted on several demographic, static and dynamic characteristics however revealed that, although similar to the other two groups of offenders in age, racial composition and sentence length, offenders in the drop-out group were at a significantly higher risk of reoffending ($p < .01$) than program completers. The mean risk level (i. e., SIR-R1) was -4.32 ($n = 77$) for the program non-completers, -0.30 ($n = 217$) for the program completers, and -1.43 ($n = 302$) for the matched offenders. In other words, the drop-out group actually contained a greater proportion of high risk individuals, compared to the group of offenders who completed the program.

The between-group analyses further indicated that program non-completers were significantly more likely than both program completers and comparison offenders to have successfully been involved in prior interventions ($p < .01$). The mean number of previous correctional programs completed was 2.08 ($n = 89$) for members of the drop-out group, but only 1.57 for both offenders who completed ($n = 243$), and those who did not participate in ($n = 332$), Counter-Point. Due to the fact that both risk and prior treatment were significantly correlated to at least one outcome variable (see Table 39), additional Cox regression analyses were conducted to address the potential confounding effect of the two variables on the favourable results obtained from the previous analyses. In addition to adjust for pre-existing differences on criminogenic need ratings, the models

were therefore designed to control for potentially influencing variations between the groups on risk and prior treatment.

Table 39

Simple Correlation Coefficients Between Recidivism and Both Risk and Prior Treatment

Variable	Suspensions	Revocations	New Offences
Risk (SIR-R1) (n = 596)	-.14**	-.05	-.27**
Prior Treatment (n = 664)	.09*	.07	-.02

* $p < .05$. ** $p < .01$.

The findings, which are reported in Tables 40, 41 and 42 for rates of suspensions, revocations, and new offences, respectively indicated that, with one exception, the general pattern of results remained the same, even after controlling for the other variables in the model. In other words, independent of pre-existing differences on criminogenic need, risk, and prior treatment, completion of Counter-Point predicted longer survival in the community. Specifically, program completers were associated with a 24% reduction in the risk of having been suspended, a 38% reduction in the risk of having been revoked, and a 33% reduction in the risk of having committed a new offence following release.

In contrast, when compared to both Counter-Point completion and non-participation, partial exposure to the program content significantly increased rates of recidivism. Program non-completers were 26% more likely of having been suspended, 83% more likely of having been revoked, and 39% more likely of having committed a new offence after release, compared to offenders who either completed the intervention or were not exposed in any way to the program content.

Table 40

Cox Regression Analysis on Survival Rate for Suspensions of Counter-Point Completers and Non-Completers, Controlling for Criminogenic Need Ratings, Risk and Prior Treatment (N = 589)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	80.11**
Criminogenic Need Ratings	1.32	1.21 – 1.44	37.86**
Risk (SIR-R1)	0.98	0.96 – 1.00	4.79*
Prior Treatment	1.02	0.91 – 1.15	0.13
Program Exposure			
Counter-Point Completion	0.76	0.60 – 0.96	5.19*
Counter-Point Non-Completion	1.26	0.94 – 1.68	2.30

* $p < .05$. ** $p < .01$.

Table 41

Cox Regression Analysis on Survival Rate for Revocations of Counter-Point Completers and Non-Completers, Controlling for Criminogenic Need Ratings, Risk and Prior Treatment (N = 589)

	Risk Ratio	95% Confidence Interval	Wald χ^2
Variable Entered			
Overall Model	---	---	75.66*
Criminogenic Need Ratings	1.40	1.26 – 1.56	38.31*
Risk (SIR-R1)	1.00	0.98 – 1.02	0.02
Prior Treatment	1.05	0.92 – 1.18	0.47
Program Exposure			
Counter-Point Completion	0.62	0.47 – 0.82	11.28*
Counter-Point Non-Completion	1.83	1.36 – 2.46	16.02*

* $p < .01$.

Table 42

Cox Regression Analysis on Survival Rate for New Offences of Counter-Point Completers and Non-Completers, Controlling for Criminogenic Need Ratings, Risk and Prior Treatment (N = 589)

Variable Entered	Risk Ratio	95% Confidence Interval	Wald χ^2
Overall Model	---	---	101.77**
Criminogenic Need Ratings	1.15	1.06 – 1.24	12.05**
Risk (SIR-R1)	0.95	0.94 – 0.97	34.26**
Prior Treatment	0.87	0.77 – 0.97	5.72*
Program Exposure			
Counter-Point Completion	0.67	0.53 – 0.83	12.80**
Counter-Point Non-Completion	1.39	1.09 – 1.77	7.19**

* $p < .05$. ** $p < .01$.

Nonetheless encouraging, these findings were short of providing guidelines as to the actual amount of program exposure that is considered necessary or optimal to effect positive behavioural change. In order to shed some light on the issue of treatment dosage, additional Cox regression analyses were performed. From inspection of the program content, these analyses involved differentiating offenders into sub-groups based on the number of sessions completed in Counter-Point. Five categories were created, which consisted of offenders having completed 0 session (i. e., comparison offenders) ($n = 302$), 5 sessions or less ($n = 21$), 6 to 14 sessions ($n = 44$), 15 to 23 sessions ($n = 12$), and at least 24 sessions ($n = 210$). Findings are displayed in Tables 43, 44, and 45.

Inspection of the tables of results suggested that, regardless of how recidivism was defined, exposure to between 6 and 14, or 15 and 23 sessions did not have any influence on the overall average rates of survival. For suspensions, revocations, and new offences respectively, the obtained test statistics were Wald χ^2 (1, $N = 589$) = 2.04 (*ns*),

Table 43

Cox Regression Analysis on Survival Rate for Suspensions of Sub-groups of Counter-Point Participants, Controlling for Criminogenic Need Ratings, Risk and Prior Treatment (N = 589)

Variable Entered	Risk Ratio	95% Confidence Interval	Wald χ^2
Overall Model	---	---	84.52**
Criminogenic Need Ratings	1.33	1.21 – 1.45	38.60**
Risk	0.98	0.96 – 1.00	4.31*
Prior Treatment	1.02	0.91 – 1.15	0.15
Program Exposure			
1 to 5 sessions	1.68	0.86 – 3.28	2.32
6 to 14 sessions	1.46	0.87 – 2.46	2.04
15 to 23 sessions	0.49	0.16 – 1.50	1.59
24 to 25 sessions	0.78	0.52 – 1.17	1.48

* $p < .05$. ** $p < .01$.

Table 44

Cox Regression Analysis on Survival Rate for Revocations of Sub-groups of Counter-Point Participants, Controlling for Criminogenic Need Ratings, Risk and Prior Treatment (N = 589)

Variable Entered	Risk Ratio	95% Confidence Interval	Wald χ^2
Overall Model	---	---	84.07*
Criminogenic Need Ratings	1.42	1.28 – 1.58	40.82*
Risk	1.01	0.98 – 1.03	0.19
Prior Treatment	1.05	0.92 – 1.19	0.50
Program Exposure			
1 to 5 sessions	2.92	1.56 – 5.45	11.32*
6 to 14 sessions	1.50	0.91 – 2.48	2.52
15 to 23 sessions	0.63	0.25 – 1.61	0.92
24 to 25 sessions	0.51	0.34 – 0.76	11.01*

* $p < .01$.

Table 45

Cox Regression Analysis on Survival Rate for New Offences of Sub-groups of Counter-Point Participants, Controlling for Criminogenic Need Ratings, Risk and Prior Treatment (N = 589)

Variable Entered	Risk Ratio	95% Confidence Interval	Wald χ^2
Overall Model	---	---	107.90**
Criminogenic Need Ratings	1.15	1.06 – 1.24	12.55**
Risk	0.95	0.94 – 0.97	32.03**
Prior Treatment	0.87	0.77 – 0.98	5.66*
Program Exposure			
1 to 5 sessions	1.78	1.06 – 3.00	4.71*
6 to 14 sessions	1.43	0.93 – 2.19	2.71
15 to 23 sessions	0.58	0.23 – 1.46	1.35
24 to 25 sessions	0.65	0.46 – 0.92	5.92*

* $p < .05$. ** $p < .01$.

Wald χ^2 (1, N = 589) = 2.52 (*ns*), and Wald χ^2 (1, N = 589) = 2.71 (*ns*) for offenders who participated in 6 to 14 sessions, and Wald χ^2 (1, N = 589) = 1.59 (*ns*), Wald χ^2 (1, N = 589) = 0.92 (*ns*), and Wald χ^2 (1, N = 589) = 1.35 (*ns*) for offenders who attended 15 to 23 sessions in the program.

Of greater interest were the findings obtained for offenders who either dropped-out of the program prior to, or at, session 5, and for those who completed the program, or at a minimum, participated in all group sessions (i. e., the group of offenders who was exposed to at least 24 sessions in Counter-Point). Excluding the results relating to rates of suspensions, the observed pattern of results indicated that, compared to all other groups of offenders, early drop-out (i. e., prior to the sixth session) significantly predicted shorter survival in the community whereas participation in 24 or more Counter-Point sessions

generally predicted longer survival in the community. With regard to revocations and new offences respectively, the obtained test statistics were Wald χ^2 (1, N = 589) = 11.32 ($p < .01$) and Wald χ^2 (1, N = 589) = 4.71 ($p < .05$) for offenders who dropped-out of the program before session 6, and Wald χ^2 (1, N = 589) = 11.01 ($p < .01$), Wald χ^2 (1, N = 589) = 5.92 ($p < .05$) for offenders who completed at least 24 sessions.

In other words, the estimated risk of having received a revocation or committed a new offence was 2.92 and 1.78 times greater for offenders who attended between 1 and 5 Counter-Point sessions, compared to offenders who either were not exposed to the program content or participated in at least 6 sessions. In contrast, when compared to the overall average effect of program exposure, completion of at least all of the group sessions in Counter-Point was related to a 49% and 35% reduction in the risk of having been revoked or held accountable for a new offence, respectively. Short from reaching statistical significance, the findings pertaining to rates of suspensions still yielded the same general pattern of results.

Controlling for variations in criminogenic need ratings, risk and prior treatment, the actual recidivism rates within each of the treatment dosage categories as well as for the total sample are reported in Table 46. When contrasted to the overall effect of treatment exposure (i. e., compared to all possible categories of program participation, including non-participation), the previously noted differential effects of Counter-Point were noticeable.

Principally for rates of revocations and new offences, the findings not only illustrated the increased rates of recidivism for the group of offenders who dropped-out of

Table 46

Mean Recidivism Rates within Different Treatment Dosage Categories

	Mean Recidivism Rate (%)		
	Suspensions	Revocations	New Offences
Program Exposure			
0 session (n = 302)	35	24	42
1 to 5 sessions (n = 21)	33	38	57
6 to 14 sessions (n = 44)	34	34	50
15 to 23 sessions (n = 12)	17	25	25
At least 24 sessions (n = 210)	25	15	26
Total (n = 589)	31	22	37

Counter-Point prior to the sixth session, but also the decreased rates observed for the group offenders who completed at least 24 sessions in the program. For instance, compared to the 22% base rate for revocations, 38% of offenders who were exposed to Counter-Point, but dropped-out of the program before the sixth session were revoked whereas 15% of those offenders who participated in at least all of the group sessions of the program received a revocation following release in the community. Based on these results, support for the fourth hypothesis, which expected Counter-Point to have a beneficial impact on rates of recidivism was, at least in part, provided.

DISCUSSION

The present study consisted of an examination of the relationships among antisocial attitudes, the use of techniques of neutralization, and criminal behaviour. This was accomplished within the context of conducting a follow-up evaluation of Counter-Point, which is a correctional program that places a specific emphasis on the concepts of antisocial attitudes and neutralization. Stated differently, in addition to evaluate the effectiveness of the Counter-Point program in reducing antisocial attitudes, the use of techniques of neutralization, and subsequently recidivism, this study allowed for an in-depth investigation of the role, importance, and/or predictive power of antisocial attitudes and neutralization in the development of a theoretically sound, empirically defensible, and practically useful understanding of criminal behaviour. In the process, this research also reaffirmed the adequate psychometric properties of the various instruments used to assess the constructs of interest.

Psychometric Properties of the Individual and the Derived Measures

Descriptive analyses performed on the individual and the derived measures initially indicated that the sample used in this study endorsed relatively low levels of antisocial attitudes and neutralization. When compared to findings from previous research, consistently lower scores on measures of antisocial attitudes and neutralization were obtained from this sample relatively to other comparable (Simourd, 1997; Atkinson, 1998; Simourd and Van De Ven, 1999), especially violent (Simourd and Olver, 2002), as well as juvenile (Shields and Whitehall, 1994) groups of offenders. These findings were particularly surprising given that the selection criteria for the Counter-Point program specifically targeted those offenders who endorsed pro-criminal expressions and values

such as negative attitudes about the criminal justice system, conventional institutions, authority figures and/or non-criminal others, and who made use of techniques of neutralization to rationalize or make acceptable their engagement in criminal activity.

Despite these preliminary results, additional analyses suggested that the individual and the derived measures possessed adequate reliability as well as concurrent and construct validity. As anticipated given that the psychometric properties of the instruments used in this study to assess the concept of antisocial attitudes have been subjected to more empirical scrutiny, estimates of antisocial attitudes generally showed superior reliability and validity, compared to those obtained on the neutralization measures. Among all instruments, it appeared that the frequency method of computing the Neutralization Measure - Modified fared the worst. This finding was not especially surprising in light of previous research conducted on earlier versions of the instrument, which demonstrated that the magnitude of neutralization was more sensitive to differences in the levels of endorsement of various neutralizing statements, compared to the frequency method of computing the scale (Atkinson, 1998).

Although not outstanding, within construct correlations coefficients were, for the most part, statistically significant. One potential reason for the low to moderate correlations observed among the measures developed to assess the same concept concerns error in the measurement of the constructs. It is furthermore conceivable that the variability observed among the measures designed to assess the same concept be accounted, at least in part, by the fact that the constructs under investigation consisted of a number of smaller and more specific dimensions, which were differentially captured by the various instruments. By confirming that the concept of antisocial attitudes was

comprised of different domains, factor analyses conducted on various measures of antisocial attitudes have previously provided support for this alternative explanation (Simourd and Olver, 2002; Mills, Kroner and Forth, 2002; Kroner and Mills, 1998). With regard to neutralization, although past empirical evidence for the multi-domain reasoning is lacking, it is likely that the same conceptual dynamic applies.

Correlational analyses involving each concept and various demographic and historical variables as well as other relevant criminogenic risk factors indicated that age and sentence length were inversely, but risk, criminal history, and problems in the areas of social interaction, marital and/or family relationships, personal/emotional predisposition and substance abuse were positively, related to either or both antisocial attitudes and neutralization. That is, having received a shorter sentence, having been previously convicted as a youth, being younger and higher risk, and having problematic social interactions, marital/family relations, personal/emotional propensities, and substance use patterns were indicative of an antisocial orientation and/or a greater approval for the use of techniques of neutralization. Despite reaching statistical significance, correlation coefficients between the different indices of criminal behaviour and both antisocial attitudes and neutralization were not exceptionally high.

One possible explanation for these results concerns the composition of the sample used in this study, which at the outset, revealed a considerably low level of endorsement of antisocial attitudes and an even lower level of approval for the use of techniques of neutralization. Another potential reason contributing to the low validity coefficients relates to the psychometric and/or relevance of the indicators of criminal propensity used as correlates. For instance, according to past research, sentence length has not been

identified as a major correlate of criminal behaviour (Beck and Huffman, 1976; Henning and Frueh, 1996; Andrews, Dowden and Gendreau, 1999), and while some empirical support has previously been provided in favour of the SIR-R1 and the OIA domains as indicators of risk and need respectively, other measures possessing superior psychometric properties have been developed. In other words, when assessing for potential relationships among correlates of criminal behaviour, the suitability of the variables used should be examined before definitive conclusions can be reached regarding the psychometric properties of the various attitudinal or other psychometric measures.

More importantly, this study provided evidence for the dynamic and predictive dynamic validity of antisocial attitudes. Not only were post-program reductions observed on the antisocial attitudes and the neutralization instruments, suggesting a reduction in the endorsement of antisocial attitudes and in the use of techniques of neutralization following participation in the program, but for some antisocial attitudes measures, estimates of predictive validity for change scores, controlling for the initial level of endorsement of the construct, generally equalled or exceeded those obtained from using simply pre- and/or post-assessment scores.

Specifically, post-scores on the derived measure of antisocial attitudes, the Pride in Delinquency Scale, and the Attitudes towards the Law, Courts, Police sub-scale of the Criminal Sentiments Scale - Modified significantly contributed to the prediction of revocations and/or suspensions. The increments in predictive validity observed from using post-, compared to pre-, assessment scores were not surprising bearing in mind that some cognitive and/or attitudinal change probably occurred in the period between the

pre- and post-assessments, which was more than likely captured at retest. Findings also suggested an additional improvement in predictive validity when considering, instead of post-assessment scores, not the actual difference in scores from post- to pre-assessment, but the pre/post-change scores while controlling for initial pre-test scores, which could impact upon the magnitude of the change revealed.

As a whole, these results clearly illustrated the importance of taking into consideration, together with the relative location at pre-test, the amount of change that occurred between the pre- and the post-assessment. Besides providing some preliminary indication that the Counter-Point program was successful at altering its intended intermediate targets of change, these results further offered supplementary evidence for the dynamic as well as predictive dynamic validity of the antisocial attitudes concept. In light of previous observations indicating that offenders scored relatively low on the self-report instruments to begin with, not only possibly limiting room for, but also reducing the potential to effectively measure, change at retest, these findings appeared promising.

For the most part, although not remarkable, estimates of predictive validity obtained in this study closely approximated those reported by previous research using similar antisocial attitudes assessment instruments (Roy and Wormith, 1985; Mills and Kroner, 1997; Simourd, 1997; Kroner and Mills, 1998; Simourd and Van de Ven, 1999; Simourd and Olver, 2002; Mills, Kroner and Forth, 2002). In this investigation, it is probable that the strength and/or significance of the predictive validity estimates were affected by the relatively low base rate results of outcome measures of recidivism. Using a comparable follow-up period and methodology for collecting the data, the recidivism rates obtained in this study were somewhat lower than other even more restrictively

defined rates reported from a recent and comprehensive study conducted on Canadian federal offenders (Bonta, Rugge, and Dauvergne, 2003). To some extent, these recidivism rates were also lower than those reported by earlier Canadian (Gendreau and Leipziger, 1978; Cormier, 1981), American (Beck, 1989; Jones, 1991) and International (Kershaw, 1999) studies.

Relationships Among Antisocial Attitudes, Neutralization, and Criminal Behaviour

A review of the literature has suggested that, theoretically and empirically, the endorsement of antisocial attitudes was closely linked to the use of techniques of neutralization. Findings from this study sustained this proposition, and as such provided support for the first hypothesis. Correlation coefficients between the measures of antisocial attitudes and neutralization indicated that the two concepts were fairly strongly positively related to each other, indicating that a higher level of endorsement of antisocial attitudes was associated with an increased approval for the use of techniques of neutralization.

Consistent with the underlying ideas of this study, correlational analyses between pre- and post-change scores however failed to provide convincing evidence that a reduction in antisocial attitudes was associated with a reduction in the use of techniques of neutralization. Because it was not necessary for one concept to be altered for the other to undergo change, these findings provided some empirical indication that antisocial attitudes and neutralization are mutually exclusive constructs. These findings therefore lent support for the proposed contention that the two concepts, although relatively strongly related, are distinct, and consequently should be analyzed independently.

Although previous empirical research has yielded mixed and questionable findings, a review of the literature has indicated that the concepts of antisocial attitudes and neutralization were related to criminal behaviour. Specifically, it has been suggested that, for those individuals who are generally prosocial, techniques of neutralization are used prior to engaging in criminal behaviour to protect from self-blame. As such, for those individuals, although not linked with antisocial attitudes, neutralization has a direct effect on initiating criminal activity, and so is considered a significant risk factor for the occurrence of criminal behaviour. In contrast, for those individuals whose attitudes toward criminal behaviour is for the most part favourable, techniques of neutralization are used, at first, following their criminal behaviour to justify their act and protect from self-blame and the blame of others, but subsequently prior to criminal activity in a sort of hardening process. In this case, neutralization does not have a direct impact on the commission of the criminal act, but rather interacts with antisocial attitudes, and as such significantly increases the chance of criminal behaviour to reoccur.

Despite the fact that it was beyond the scope of this study to evaluate the temporal relationships among antisocial attitudes, neutralization and criminal behaviour, the present investigation allowed for a preliminary assessment of the existing associations between the concepts. In particular, while the second hypothesis focused on testing for the expected main effect of antisocial attitudes on various measures of recidivism, the third hypothesis was directed towards exposing the moderating effect of neutralization on the relationship between antisocial attitudes and criminal behaviour. In other words, the third hypothesis aimed at uncovering a possible interaction effect between antisocial attitudes and neutralization in relation to measures of recidivism. Specifically, it was

predicted that the effect of neutralization on recidivism was going to be greater for offenders who endorsed low levels of antisocial attitudes.

Findings obtained from the logistic regression models demonstrated that antisocial attitudes was a substantively important predictor of recidivism when measured using rates of suspension and/or revocations. In contrast, antisocial attitudes failed to account for a significant proportion of the variability in recidivism when the criterion variable was defined as the commission of any new offence. These results therefore only partially confirmed the second hypothesis. On the one hand, when predicting suspensions and revocations, antisocial attitudes was positively and significantly correlated with recidivism. On the other hand, when new offences was used as a dependent variable, the main effect of antisocial attitudes failed to reach statistical and/or practical significance.

A potential reason for the discrepancy in results regarding the differential impact of antisocial attitudes on the various criterion variables relates to the presence of a possible censoring process of antisocial attitudes prior to the commission of a new offence. In other words, Parole Officers' decision to submit a warrant of suspension or revocation may have been influenced by the antisocial attitudes of offenders. Thus, even though the base rate for new offences was greater than those obtained for suspensions and/or revocations, the relationship between antisocial attitudes and new offences may have a priori been filtered by the work of correctional agents. Another plausible explanation concerns the generally closer occurrence of a suspension and/or revocation, compared to a new offence, to the most recent available measurement of antisocial attitudes.

Supplementary analyses designed to assess the main effect of neutralization on criminal behaviour suggested that the extent to which offenders approve of the use of techniques of neutralization did not have a direct significant impact on the likelihood of recidivism to occur. The pattern of results seemed to indicate that neutralization does not represent an important risk factor for criminal behaviour. When evaluated independently, the use of techniques of neutralization failed to contribute significantly to the prediction of suspensions, revocations, and new offences. Nevertheless, it appeared that if a relationship existed, the overall score on the derived measure of neutralization suggested a positive correlation between the construct and criminal behaviour. In other words, higher levels of neutralization would be indicative of increased rates of recidivism.

In spite of these preliminary results, it was still conceivable that, when investigated in conjunction with antisocial attitudes, the conceptual and empirical relevance of neutralization to a full explanation of criminal behaviour remained important. By investigating the potential interaction effect between antisocial attitudes and neutralization in relation to criminal behaviour, supplementary analyses were designed to address this issue.

The results obtained however failed to indicate the presence of an interaction effect between antisocial attitudes and neutralization when regressed on all three measures of recidivism, consequently offering no support for the third hypothesis. When the criterion variable was defined as rates of suspensions and/or revocations, an observable yet extremely small and non-significant improvement in deviation chi-square occurred upon inclusion of neutralization in a model that already contained antisocial attitudes as an independent variable. These findings suggested that the improvement in

predictive validity obtained from taking into consideration, in addition to offenders' levels of endorsement of antisocial attitudes, the extent to which they approved of the use of neutralization was, at the most, negligible. In other words, knowing about the extent to which offenders approve of the use of techniques of neutralization appeared to simply have maintained the direct effect of antisocial attitudes on the likelihood of being suspended and/or revoked.

Upon closer examination of the data however, the findings provided some support for the expected data dynamic regarding the relationship between antisocial attitudes and neutralization in relation to criminal behaviour. In a nutshell, the general pattern of results revealed that, upon inclusion of neutralization in a logistic regression model already containing antisocial attitudes as an independent variable, the relationship between the predictor variable that most strongly correlated with the respective outcome variable remained the same (i. e., in this case, positive) while the direction of the correlation between the weakest independent variable and the dependent variable changed sign (i. e., in this case, became negative). This effect, which is actually advantageous because, depending on the magnitude of the effect sizes, can greatly improve the prediction of the criterion variable, has previously been labelled "negative suppression" by Conger (1974).

In a relatively recent publication, Lancaster (1999) provided a detailed description and interpretation of suppressor effects. According to the author, a suppressor variable is "a measured predictor that has a zero (or near zero) correlation with the dependent variable while paradoxically still contributing to the predictive validity of a battery of scores" (Lancaster, 1999, p.140). In the case of negative suppression, a predictor variable

further receives a negative weight upon inclusion in an equation when all variables have positive inter-correlations. In essence, provided that there is a high correlation with another variable that is related to the dependent variable, by removing irrelevant or unwanted variance in this other predictor variable, the suppressor variable indirectly improves the effect size of the predictor-criterion relationship. This occurs despite the fact that the suppressor variable directly predicts none, or almost none, of the variance in the dependent variable.

Within the context of the present investigation, with its near zero correlation with the various measures of recidivism, but its considerably high positive relationship with antisocial attitudes, it could be argued that neutralization acted as a suppressor variable on the relationship between antisocial attitudes and criminal behaviour. Despite the fact that the results obtained in this study failed to indicate a substantial and/or significant improvement in predictive validity, the direction of the relationship between antisocial attitudes and criminal behaviour reversed upon inclusion of neutralization.

Statistically speaking, by virtue of the association between neutralization and antisocial attitudes, which subsequently caused neutralization to remove some of the excess variability in antisocial attitudes, these findings evoked the possibility of obtaining more effective estimates of recidivism upon consideration of neutralization, in addition to antisocial attitudes, in prediction models. From a conceptual point of view, although neutralization does not appear to represent an important criminogenic need factor, and as such should not be regarded as a primary treatment target, consideration should still be given to the assessment of the concept as it may have utilization in the prediction of criminal behaviour.

The Effect of the Counter-Point Program on Recidivism

The present study demonstrated quite clearly that reductions in antisocial attitudes and neutralization occurred following participation in Counter-Point, which provided some preliminary indication that the program was successful at altering its intended intermediate targets of change. Evidence for the relationship between some of the intermediate changes in the treatment targets and reduced recidivism was also provided. However devoid of a comparison group, it was yet impossible to positively attribute the reductions in rates of recidivism observed to participation in the Counter-Point program. By investigating the impact of treatment exposure on reduced rates of recidivism, the fourth hypothesis was therefore concerned with addressing this issue, and further increase the level of confidence in the interpretation of the preliminary results obtained.

Between-group analyses aimed at comparing the Counter-Point participants with the matched offenders initially indicated that offenders comprised in the treatment group differed from those selected for inclusion in the comparison group on one important variable. When compared to previous research conducted on comparable groups of offenders (Dowden, Blanchette, Serin, 1999), although the sample used in this study generally did not show an elevated level in the majority of the need domains assessed at intake, the two groups of offenders differed in terms of criminogenic need. Findings further suggested that, only on the attitude domain was the percentage of offenders exhibiting problems, near or within the range of expected values, which was anticipated in light of the established referral criteria for selecting offenders in the Counter-Point program. In spite of this, Counter-Point participants were less likely than their comparison counterparts to have identified problems in all seven domains, including the

attitude dimension. When combined to form an overall criminogenic need ratings variable, offenders included in the treatment group were therefore identified as having more problematic need scores relative to offenders who did not participate in the program.

Overall, despite the fact that the preceding analyses identified one variable that meaningfully distinguished the two groups of offenders, the findings suggested that the comparison offenders shared more similarities than differences with the Counter-Point participants. Amongst other things, the treatment and comparison groups were similar in terms of age, racial composition, marital status, risk level, prior treatment, sentence length, and juvenile offence history. Short from fully compensating for the absence of random assignment, these preliminary results nonetheless increased the level of confidence in the conclusions drawn from the recidivism data. Threats to the validity and reliability of the findings resulting from the lack of random assignment of offenders to the treatment and comparison groups were further reduced in the present investigation by controlling for time-at-risk in the community, which was defined as the actual number of days of opportunity to engage in criminal activity.

As a whole, the results obtained from performing a series of Cox regression analyses suggested that, even after adjusting for initial differences on the various criminogenic need domains examined as well as other subsequently identified within-groups differences in risk and prior treatment, completion of the Counter-Point program predicted longer survival in the community. In contrast, partial exposure to the program content (i. e., program non-completion) was not associated with reliable reductions in the risk of being suspended, revoked, and/or held responsible for the commission of a new

offence following release. As a matter of fact, when compared to the overall average effect of treatment exposure, the early program non-completers (i. e., those who dropped-out of Counter-Point prior to the sixth session) were significantly related to increased rates of recidivism. Still, even when a control was introduced for the influential pre-release variables that differed between the groups, for the group of offenders who participated in at least all of the group sessions of the program, Counter-Point contributed substantially to reduced recidivism.

These findings partly supported the fourth hypothesis. Evidence for the favourable impact of the Counter-Point program was provided, but only for offenders who were exposed to at least all of the group sessions included in the intervention. As noted by Gendreau, Goggin and Smith (1999), "the meta-analyses of offender treatment indicate that a 15% to 30% reduction in recidivism is a reasonable objective under most conditions" (p. 183). The results obtained in this study suggested that, controlling for criminogenic need, risk, and prior treatment, completion of at least all of the group sessions in Counter-Point was associated with a 22% reduction in the risk of having been suspended, a 49% reduction in the risk of having revoked, and a 35% reduction in the risk of having committed a new offence in the community, compared to all other levels of program exposure, including non-participation.

As previously indicated however, less favourable results were obtained for the early program non-completers, which is not too surprising in light of the existing literature on the relationship between treatment attrition and rates of recidivism. In fact, few would argue that treatment attrition, although endemic to all correctional interventions, interferes with the ultimate objective of reducing rates of recidivism as it is

“based on the assumption and observation that some of the client characteristics that put the offender at risk for not completing treatment are also likely to put him or her at risk for recidivism” (Wormith and Olver, 2002, p. 449). In this study, while support for the effectiveness of the Counter-Point program in reducing rates of recidivism was provided, these encouraging results coincidentally raised concerns regarding the ability of the intervention to adequately respond to the needs of the diverse clientele it is supposed to target.

Limitations of Findings and Suggestions for Future Research

Despite the fact that full support for the hypotheses was not offered, some evidence for the predictive dynamic criterion validity of antisocial attitudes as well as for the positive impact of the Counter-Point program on reduced recidivism was provided. Subject to its methodological weaknesses, this multi-wave longitudinal study further highlighted a valuable point. By successfully associating the reductions in antisocial attitudes to reduced recidivism, the present investigation increased the level of confidence in positively attributing the decreased rates of recidivism observed to the completion of the Counter-Point program.

In this study, not only did antisocial attitudes account for a significant proportion of the variability in criminal behaviour, but increments in predictive validity were observed upon consideration of the treatment-related changes revealed in antisocial attitudes, controlling for initial pre-assessment scores on the construct. With its near zero correlation with criminal behaviour however, the addition of neutralization in the prediction models failed to substantially and significantly increase the magnitude of the effect sizes. Nonetheless, by virtue of its strong relationship with antisocial attitudes, the

general pattern of results obtained provided some preliminary indication that important gains in predictive validity were possible upon inclusion of neutralization in a model that already contained antisocial attitudes as an independent variable. The following section highlights some of the shortcomings of this study, which could have influenced the pattern of results obtained.

Despite their demonstrated acceptable psychometric properties, the self-report instruments used in this study to assess antisocial attitudes and neutralization were not initially designed to precisely tell apart the two constructs, which likely inflated the amount of error present in the measurement of both concepts. In other words, it is probable that the assessment instruments used were simply not sophisticated enough to accurately measure the proposed level of complexity in the concepts under investigation.

A review of the literature has indicated that, in order to truly and effectively differentiate between the constructs, and as such, develop an empirically defensible and practically meaningful understanding of the respective and intertwined relationships among antisocial attitudes, neutralization, and criminal behaviour, psychometric instruments should clearly distinguish the general approbatory belief (i. e., antisocial attitude) from the conditional approbatory belief (i. e., neutralization) towards criminal behaviour (Agnew, 1994).

With regard to the measurement of antisocial attitudes, this means that, instead of using simple statements (e. g., "Laws are usually bad", "How do you feel about selling cocaine?", etc.) to determine the general belief, participants should be presented with universal and all-encompassing assertions (e. g., "Laws are *always* bad", "How do you feel about selling cocaine *for any reason*?"). It follows that the measurement of

neutralization should, in contrast, insist on the specificity of the situation, and assess the conditional degree of approval for criminal behaviour (e. g., “Laws are *bad* when they do not consider the extent of injury done to the victim”, “How do you feel about selling cocaine to have enough money to buy Christmas presents for your children?”).

On a different note, by additionally confounding the assessment of the actual general/conditional beliefs towards criminal behaviour with that of the general/conditional beliefs towards punishment, the use of sentencing scenarios as is the case with the Neutralization Measure – Modified may have been problematic for the adequate assessment of the neutralization concept. In general therefore, academically, professionally and practically, the findings obtained in this study illustrated the need for future research to concentrate on the development of superior psychometric instruments that will appropriately measure, and differentiate between, the concepts of antisocial attitudes and neutralization.

Another important limitation of this study, which likely contributed to the failure of the pattern of results obtained regarding the relationships among antisocial attitudes, neutralization, and criminal behaviour to reach statistical significance, concerns the composition of the sample used in this study. Along a continuum, in terms of the extent of antisocial attitudes endorsed and neutralization used, the sample used in this study did not seem to truly reflect the general population of offenders. Although Counter-Point was specifically aimed, amongst other things, at targeting offenders with a relatively high level of endorsement of attitudes supportive of criminal conduct, comparison of the results from this study with those obtained from previous research suggested that

problems existed in the referral mechanism intended to identify offenders as suitable candidates for the program.

For the most part, Counter-Point participants in this study scored surprisingly low on both the antisocial attitudes and the neutralization constructs. This resulted in a lack of variability in the independent variables, which consequently likely influenced the predictive accuracy of the proposed model. Given a different sample of offenders, one that would have included a sufficient degree of variability in the levels of endorsement of antisocial attitudes and neutralization, it is probable that a clearer and/or more powerful pattern of results would have emerged.

Similarly, the relatively low rates of recidivism actually observed in this study could have affected the predictive criterion validity of antisocial attitudes and neutralization as well as the magnitude of the reductions in rates of recidivism revealed. Not only does the accuracy of psychometric and/or risk measures depend, to a moderate extent, on the base rate for the type of criminal behaviour being assessed (Andrews and Bonta, 2003), but the net reductions in rates of recidivism are also expected to be smaller when the number of offenders that actually do recidivate in the sample is less. Attempts to replicate the findings obtained in this study should therefore be carried out using, in addition to improved assessment instruments to measure the concepts, different samples of offenders.

As discussed in the introductory paragraphs, future research undertakings should also focus on testing for the causal relationships among antisocial attitudes, neutralization, and criminal behaviour. Some promising ways to do so include the design of multi-wave longitudinal studies where the various phases of testing would allow for

both cross-sectional and longitudinal analyses to be conducted. In order to control for the causal ordering of the variables, research efforts should be conducted among populations originally containing non-criminal participants. For example, this could involve testing a cohort of high school students, or young adolescents. Operational definitions for the dependent variables could include involvement in various types of deviant (e. g., cheating, truancy, etc.) and illegal (e. g., alcohol/drug use, vandalism, etc.) activities together with more major forms of criminal behaviour (e. g., theft, break and enter, assault, etc.).

With regard to the program evaluation component of this study, despite the inclusion of the drop-outs in the treatment group, the relatively large sample size, the extended follow-up period, and the attempt to control for many pre-existing differences between the treatment and comparison groups, which represent advances over much of the previous research evaluating correctional programs and a deliberate attempt to approximate the ideals of the true experimental design, several other limitations should be acknowledged. First, this study relied on rates of recidivism as the sole outcome measure of failure or success. Although it could be argued that this may have underestimated the benefits of the intervention, an equally important dimension of program effectiveness, which was neglected in the present study, involves the assessment of other indicators of improved prosocial behaviour or social adjustment (Latessa and Travis III, 1992; Henning and Frueh, 1996). These include for instance the establishment of better interpersonal relationships and/or of prolonged involvement in employment and education.

Similarly, it would have been particularly interesting to investigate whether the reductions observed in antisocial attitudes and neutralization, short from evoking a positive behavioural change in some offenders, actually translated into increased prosocial attitudes. In other words, it is conceivable that Counter-Point is successful at altering offenders' underlying antisocial attitudes, but does very little to transfer this knowledge into the learning of prosocial attitudes, which by itself, may not be sufficient to induce a noticeable change in behaviour for some individuals. It is therefore important for future research undertakings to examine the potential moderating effect of prosocial attitudes on the relationship between antisocial attitudes, neutralization and behavioural tendencies.

Other shortcomings entail the lack of random selection and assignment of offenders into groups. As previously noted, although an attempt was made to control for several pre-release variables, a number of other, perhaps equally important variables (e. g., motivation level, institutional behaviour), could have differed prior to treatment or release, and subsequently impacted on the results obtained. Just as noteworthy in this study was the impossibility to control for a potential selection bias not only in Correctional Program Officers' tendency to forward the completed pre-/post-assessment questionnaires to National Headquarters, but also in offenders' predisposition to prematurely drop-out of the program.

This research further clearly highlighted problems related to treatment attrition. Based on the findings obtained, research initiatives should be directed towards the development of a theoretically sound and empirically valid understanding of responsivity issues, or of the effects of various risk by treatment interactions. Practically, to combat

treatment attrition, efforts should be targeted towards evaluating the capacity of the Counter-Point program to accommodate basic responsiveness concerns, including verbal intelligence, the existence of a mental or personality disorder, age, language, ethnicity, and motivational level.

The question of treatment attrition is closely related to another important issue, which has already been briefly acknowledged. The limitation relates to the existing referral mechanism for the selection of offenders in the Counter-Point program. In addition to be unsuccessful in targeting offenders with a moderate to high level of endorsement of antisocial attitudes, it became apparent that the correctional agency failed to adhere to the risk principle. Relative to the general CSC offender population, offenders included in the present study were considered at a low to moderate risk of recidivism. Although within this sample, it was the higher risk offenders who tended to drop-out and subsequently engage in criminal or illegal activity, by terminating treatment so early, these offenders were evidently not sufficiently exposed to the program content to receive the full benefits of the intervention. Not only could this have underestimated the positive impact of participation in Counter-Point on reduced recidivism, but it has also raised fundamental questions for future research concerning the discovery of innovative ways to minimize treatment attrition among the higher risk offenders.

Implications

Taking into account the aforementioned limitations, findings from this investigation provided evidence for the predictive dynamic criterion validity of antisocial attitudes. Specifically, the attitudinal dimensions reflected in the Attitude towards the Law, Courts, and Police sub-scale of the CSS-M together with those tapped in the Pride

in Delinquency Scale demonstrated particular relevance in the prediction of criminal behaviour, and as such should be considered promising treatment targets, and profitable to the development of future risk assessment instruments. Pending the development of improved self-report measures, an applied repercussion of these results therefore includes the recommendation of using the Criminal Sentiments Scale – Modified as well as the Pride in Delinquency Scale among practitioners interested in assessing the extent to which offenders hold antisocial attitudes.

Another implication of this study relates to the relative improvement in predictive criterion validity obtained from using post-program assessments and/or controlling for the initial level on the concept of interest, the amount of change that occurred during treatment, compared to a composite of attributes at program intake as predictive measures of reduced rates of recidivism. This observation is consistent with previous research (Andrews and Wormith, 1984; Wormith, 1984; Andrews, Wormith and Kiessling, 1985) and underscores the importance of taking into consideration in addition to the content, the process entailed in conducting assessments.

The finding that completion of the Counter-Point program was associated with strong reductions in rates of recidivism even when controls were introduced for several significant pre-release variables (i. e., risk, prior treatment, criminogenic need) not only reaffirms the dominance of antisocial attitudes in criminal behaviour, but also provides support for the effectiveness of the rehabilitative intervention. Counter-Point should therefore continue to be offered to offenders with an identified need on the attitude domain. Treatment attrition and its effect on rates of recidivism however raised some

concerns, leading to a few important considerations for practitioners and researchers alike.

As mandated by the risk and responsivity principles, issues regarding whether offenders should be better prepared or screened prior to beginning treatment or whether the program should be modified or provided in various formats should be addressed. Novel approaches to understand and subsequently minimize treatment attrition should also be contemplated. To accomplish this objective, it appears essential for future program evaluation research to ensure that a variety of personal variables inherent to differences between completers and non-completers be taken into consideration. This includes examining the potentially moderating or differential effects of offenders' motivation level or reason for discontinuing treatment on rates of recidivism.

Conclusions

Until progress is made in some of the areas aforementioned, there is however no choice but to conclude that, in contrast to antisocial attitudes which significantly predicted rates of both suspensions and revocations, the extent to which offenders approve of the use of techniques of neutralization does not significantly impact, either directly or indirectly, on the likelihood of recidivism to occur. In other words, as opposed to antisocial attitudes, neutralization does not represent an important risk factor for criminal behaviour. When evaluated independently as well as in conjunction with antisocial attitudes, the use of techniques of neutralization failed to contribute significantly to the prediction of suspensions, revocations and new offences.

However, despite the fact that neutralization did not play a substantial role in the prediction of rates of recidivism for the sample used in this study, until more research is

conducted on the relationships among antisocial attitudes, neutralization, and criminal behaviour, the results conveyed that the concept should still be seen as being both conceptually and empirically relevant to a full explanation of criminal conduct. Subject to the limitations of this study, efforts should be directed towards the conception of a clearer understanding of the causal role, including the potential temporally distinct impact, of antisocial attitudes and neutralization in the prediction of criminal behaviour.

Nevertheless, by approximating the ideals of the true experimental design and exemplifying one of only a few multi-wave longitudinal studies meeting the standards of dynamic predictive criterion validity, the present investigation represents a valuable contribution to the increasing body of knowledge that exists on the predictors of criminal behaviour, and on the effectiveness of rehabilitative correctional interventions. Findings obtained in this study not only reaffirm that antisocial attitudes is a major risk factor for criminal behaviour, but also that the concept is amenable to change, and that those changes are associated with significant reductions in recidivism.

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APPENDICES

Appendix A

Criminal Sentiments Scale - Modified (CSS-M)

Please complete the questions below by choosing Agree (A), Undecided (U) or Disagree (D).

LAW

1. Pretty well all laws deserve our respect.	A	U	D
2. It's our duty to obey all laws.	A	U	D
3. Laws are usually bad.	A	U	D
4. The law is rotten to the core.	A	U	D
5. You cannot respect the law because it's there only to help a small and selfish group of people.	A	U	D
6. All laws should be obeyed just because they are laws.	A	U	D
7. The law does not help the average person.	A	U	D
8. The law is good.	A	U	D
9. Law and justice are the same thing.	A	U	D
10. The law makes slaves out of most people for a few people on the top.	A	U	D

Law total: _____

COURTS

11. Almost any jury can be fixed.	A	U	D
12. You cannot get justice in court.	A	U	D
13. Lawyers are honest.	A	U	D
14. The crown often produces fake witnesses.	A	U	D
15. Judges are honest and kind.	A	U	D
16. Court decisions are pretty well always fair.	A	U	D
17. Pretty well anything can be fixed in court if you have enough money.	A	U	D
18. A judge is a good person.	A	U	D

Courts total: _____

POLICE

19. The police are honest.	A	U	D
20. A cop is a friend to people in need.	A	U	D
21. Life would be better with fewer cops.	A	U	D
22. The police should be paid more for their work.	A	U	D
23. The police are as crooked as the people they arrest.	A	U	D
24. Society would be better off if there were more police.	A	U	D
25. The police almost never help people.	A	U	D

Police total: _____

TLV

26. Sometimes a person like me has to break the law to get ahead in life.	A	U	D
27. Most successful people broke the law to get ahead in life.	A	U	D
28. You should always obey the law, even if it keeps you from getting ahead in life.	A	U	D
29. It's okay to break the law as long as you don't get caught.	A	U	D
30. Most people would commit crimes if they know they wouldn't get caught.	A	U	D
31. There is never a good reason to break the law.	A	U	D
32. A hungry man has the right to steal.	A	U	D
33. It's okay to get around the law as long as you don't actually break it.	A	U	D
34. You should only obey those laws that are reasonable.	A	U	D
35. You're crazy to work for a living if there's an easier way, even if it means breaking the law.	A	U	D

TLV total: _____

ICO

36. People who have broken the law have the same
sorts of ideas about life as me. A U D
37. I prefer to be with people who obey the
law rather than people who break the law. A U D
38. I'm more like professional criminal than the people
who break the law now and then. A U D
39. People who have been in trouble with the law are more like
me than people who don't have trouble with the law. A U D
40. I have very little in common with people
who never break the law. A U D
41. No one who breaks the law can be my friend. A U D

ICO total: _____

CSS TOTAL: _____

Appendix B

Pride in Delinquency Scale (PID)

Below is a list of behaviours. You may have done some of them; there are probably some you haven't done. It doesn't really matter if you've done them or not. What I'd like you to do is imagine for a moment that you had done each of them, and report how you'd feel about yourself if you had done them: proud or ashamed. In fact, I'd like you to rate each of them on a scale that goes from positive ten to negative ten. You'd give it a positive number if you'd be proud to do it, and a negative number if you'd be ashamed to do it. The bigger the number, the more proud or ashamed you'd be. So if you gave it a positive 8, 9, or 10, you'd be extremely proud to do it. If you gave it a negative 4, 5, or 6, you'd be moderately ashamed to do it. If you gave it a positive 1 or 2, you'd be just a little bit proud. If you had no feelings, if you'd be right in the middle, you'd give it a 0. Here are a few examples. Most people would give a positive 10 to saving the life of a drowning child, because they'd be extremely proud to do a thing like that. Most people would give a negative 10 to murdering a young child, because they'd be extremely ashamed to do a thing like that. Most people would give 0 to waking up in the morning, because they wouldn't be proud or ashamed to get up. They just get up and get going. Remember you are to rate how you'd feel about doing each of these things, not how most people would feel.

1. _____ Beating up a child molester.
2. _____ Committing sexual assault.
3. _____ Breaking into a house when no one is in and stealing jewelry and a VCR.
4. _____ Seeing a store being robbed and *not* calling the police.
5. _____ Driving home after a party when you've had too much to drink.
6. _____ Striking someone who insults you; let's say they call you a "goof".
7. _____ Selling cocaine.
8. _____ Carrying a concealed weapon, like a pistol, without a licence.
9. _____ Pointing a shotgun at a store clerk your own age and telling him/her (same gender as the client) to hand over all the money in the till.
10. _____ Getting away from the police after a high speed chase.

Total + 100 = _____

Appendix C

Neutralization Measure - Modified (NM-M)

Below are 5 crime descriptions followed by several statements containing additional information about the situation. After reading each statement, decide what sentence, if any, you would give the offender if you were the judge. Please answer all items.

A) While hanging around a store where he used to work, Pete Jones took some things without paying for them. As soon as he left the store, he was picked up by the police. The store owner, that is his former boss, had him charged with shoplifting.

Typical sentences for shoplifting range from 0 (warning) to 36 months probation.

1. What period of probation would you give Pete Jones? __mos

What sentence would you give if you became aware that:

the owner was rich and wouldn't have missed the items? __mos

the owner sometimes sold stolen goods? __mos

Pete's friends were pressuring him to do it and he felt that his reputation was on the line if he backed out? __mos

the things that Pete took were for his daughter's birthday because he did not have enough money for a present? __mos

everyone was surprised because Pete had never done anything like this before and, in fact, was well respected for his volunteer work in the community. __mos

Pete had been repeatedly beaten and sexually abused as a child and was bitter and unhappy as a result __mos

Pete had been arrested for shoplifting a week before? __mos

he had been drinking heavily and it had impaired his judgement? __mos

B) Pete Jones stopped a man on a dark street one night when nobody else was around. He pulled a knife and made the man hand over his money. Later, the man picked him out of a police line-up and he was charged with armed robbery.

Typical sentences for armed robbery range from 1 to 7 years in prison.

1. What sentence would you give Pete Jones? _____yrs

What sentence would you give if you became aware that:

Pete's friends felt he was too scared to do it and he wanted to show they were wrong? _____yrs

he had been drinking heavily and it had impaired his judgement? _____ yrs

it turned out that the man was a child molester? _____yrs

he desperately wanted the money to buy his son a bicycle so his son could ride around with his friends? _____ yrs

everyone was surprised because Pete had never done anything like this before and, in fact, was well respected for his volunteer work in the community. _____yrs

the victim wasn't hurt _____yrs

Pete had held up two other people the same night? _____yrs

Pete had been repeatedly beaten and sexually abused as a child and was bitter and unhappy as a result. _____yrs

C) Pete Jones and his partner rang the doorbell of a house in a wealthy neighbourhood late one night. When no one answered, they went to the back and climbed in through a window. After taking a few items, they left. Pete was later found guilty of break, enter and theft.

Typical sentences for break, enter and theft range from 0 (warning) to 36 months in prison.

1. What sentence would you give Pete Jones? __mos

What sentence would you give if you became aware that:

the owners had left some expensive jewelry out in the open and hadn't bothered to lock their windows? __mos

the owners of the house were so rich that they could easily replace the stolen items? __mos

his partner wouldn't do it alone and he owed his partner a favour? __mos

Pete knew how happy his girlfriend would be if he brought her home some expensive jewelry? __mos

everyone was surprised because Pete had never done anything like this before and, in fact, was well respected for his volunteer work in the community. __mos

Pete and his friends were suspected of committing a number of neighbourhood break and enters. __mos

Pete had been repeatedly beaten and sexually abused as a child and was bitter and unhappy as a result. __mos

he had been drinking heavily and it had impaired his judgement? __mos

D) Pete Jones went to a bar one night where he beat up a guy in a fight. The next day he was charged with assault.

Typical sentences for assault range from 1 to 36 months in prison.

What sentence would you give Pete Jones? ____mos

What sentence would you give if you became aware that:

the victim wasn't permanently hurt? ____mos

he had been drinking heavily and it had impaired his judgement? ____mos

the guy insulted his daughter and Pete was defending her name? ____mos

the guy would not back down when Pete warned him? ____mos

his friends at work were there and he had to show them that he could stand his ground? ____mos

everyone was surprised because Pete had never done anything like this before and, in fact, was well respected for his volunteer work in the community. ____mos

Pete has a lengthy criminal record for assault? ____mos

Pete had been repeatedly beaten and sexually abused as a child and was bitter and unhappy as a result. ____mos

E) Pete Jones applied for several credit cards using false names and used them when he ran out of credit on his own cards. The cards were eventually traced to him and he was charged with several counts of fraud.

Typical sentences for credit card fraud range from 1/2 to 3 1/2 years in prison.

What sentence would you give Pete Jones? _____yrs

What sentence would you give if you became aware that:

the companies issued the cards without doing any check? _____yrs

he only used them to entertain business colleagues and needed the extra money to keep up with the image necessary in his line of work? _____yrs

Pete had been repeatedly beaten and sexually abused as a child and was bitter and unhappy as a result. _____yrs

everyone was surprised because Pete had never done anything like this before and, in fact, was well respected for his volunteer work in the community. _____yrs

the people whose names he used on the credit cards had their credit completely restored? _____yrs

it was Christmas and his social assistance had run out before he could buy presents for his 3 kids. _____yrs

Pete was on parole for drug-related crimes at the time of these offences? _____yrs

his sister had just committed suicide and he was crazy with grief? _____Yrs

*Appendix D**The Derivation of Single Measures of Antisocial Attitudes and Neutralization*

Preliminary analyses performed on the instruments have demonstrated that all three measures of antisocial attitudes (i. e., Attitudes towards the Law, Courts, Police sub-scale, Identification with Criminal Others sub-scale, and Pride in Delinquency Scale) were moderately correlated with each other, and were sensitive to offenders' various levels of endorsement of the concept as well as change following exposure to treatment. Internal consistency analyses also indicated that, apart from the Identification with Criminal Others sub-scale, the Attitudes towards the Law, Courts, Police sub-scale and Pride in Delinquency Scale exhibited exceptionally high reliability.

Although it is true that reliability is necessary for validity, findings suggested that the lower reliability results obtained on the ICO were due, at least to some extent, to the smaller number of items comprising the sub-scale. Additional analyses from this study as well as previous research conducted on the instrument (e. g., Wormith and Andrews, 1984; Andrews, Wormith, and Kiessling, 1985; Roy and Wormith, 1985; Simourd and Olver, 2002) have actually demonstrated that the ICO was a promising tool in appropriately measuring antisocial attitudes, and in linking scores on the measure with past and/or future criminal behaviour. The Identification with Criminal Others sub-scale was therefore not excluded from the creation of a composite scale score designed to best reflect antisocial attitudes in the sample used in the present study.

Different conclusions were however drawn from consideration of the findings obtained on the measures of neutralization (i. e., Tolerance for Law Violations sub-scale, and frequency and magnitude methods of computing the Neutralization Measure -

Modified). Even though reliability results were not problematic for all three instruments, some concerns were raised in terms of the validity of some methods of assessments, primarily the frequency of neutralization.

To begin with, the frequency distributions of scores on all three instruments were markedly skewed, suggesting a rather low approval for the use of techniques of neutralization. Although it is conceivable that this was not the end result of a lack of construct validity on the part of the instruments, but rather of a true reflection of the actual level of endorsement of the concept for offenders in the present study, preliminary findings obtained on the instruments generally indicated that the different measures did not correlate with each other exceptionally well, and were not all similarly adequately sensitive to change.

While the frequency of neutralization undoubtedly fared the worst on a variety of dimensions, the Tolerance for Law Violations sub-scale, with the smallest number of items, performed the best. Based on these results, and to avoid placing too much emphasis on the Neutralization Measure - Modified as compared to the TLV sub-scale, whose psychometric properties have been successfully subjected to more extensive empirical work, the frequency of neutralization was deleted from the derivation of the single overall assessment of neutralization.

Both derived measures further simply consisted of simple summations of the respective individual instruments. Specifically, in order to calculate the derived measure of antisocial attitudes, scores on the Attitudes towards the Law, Courts, Police sub-scale, the Identification with Criminal Others sub-scale, and the Pride in Delinquency Scale were added, producing an overall score influenced by 41 items. With regard to

neutralization, scores on the Tolerance for Law Violations sub-scale, but reversed scores on the magnitude method of computing the Neutralization Measure-Modified were summed up, generating a derived measure of totalling 35 items.

*Appendix E**The Determination of the Most Appropriate Set of Scores for Each Offender*

Findings clearly illustrated that some change in offenders' level of endorsement of antisocial attitudes and neutralization occurred between the pre- and post-assessments. In order to appropriately examine the relationships among the concepts and criminal behaviour, it therefore deems important to take this change into consideration. Given the range of available data in this study, the following series of analyses, which were designed to provide some indication of the most appropriate set of scores to use for each offender, were conducted. In addition to improve upon the reliability and validity of the results, and as such the predictive power of the study, these analyses were also aimed at reducing the possibility of selection biases. For the most part, the following series of analyses involved dividing Counter-Point participants into three groups based on whether or not they completed not only the program, but also the post-testing session. Comparisons intended to uncover any potentially influential pre-program differences between the groups were further conducted.

Out of the 339 Counter-Point participants included in this study, 246 completed the program while, for various reasons, 93 dropped out before the program end date. In other words, with a completion rate of 72.6%, almost three quarters of offenders who enrolled in Counter-Point participated in all of the program sessions. Out of the 246 offenders who completed Counter-Point however, the post-assessment battery was administered to only 226 offenders. That is, for 113 out of a possible total of 339 participants in this study, only the pre-program assessment was completed.

The motives behind the non-completion of the post-program assessment for the residual 20 offenders were not reported. Potential reasons probably included mere carelessness on the part of Program Delivery Officers (PDO) to administer the post-test battery, or to forward the completed post-program questionnaires to NHQ. Then again, efforts to follow-up on offenders who may simply have missed the scheduled post-testing session due to illness, employment or other similarly tolerable justifications may have been unsuccessful.

Ideally, to adequately test the predictions regarding the relationships among antisocial attitudes, the use of techniques of neutralization, and criminal behaviour while at the same time, account for the change that took place in offenders due to program participation, post-assessment data should be used for each offender. This was however not possible in this study as some offenders, whether or not they completed Counter-Point, failed to complete the post-program assessment battery.

An examination of the frequency distribution for the total number of sessions completed by the 93 offenders who prematurely dropped-out of the program provided some preliminary indication for the adequacy of using pre-program data for those offenders. The findings indicated that the great majority of program non-completers dropped-out of treatment before even having participated in half of the program sessions, which was probably not sufficient to trigger substantial cognitive, attitudinal, and/or behavioural changes.

Concerns were however raised with regard to offenders who completed Counter-Point, but failed to participate in the post-program assessment battery. It was likely that those offenders were sufficiently exposed to the program to assimilate its content and

experience some degree of change. In order to evaluate the extent of the threats to validity and reliability given the use of pre-assessment data for these 20 offenders, supplementary analyses were performed. The main objective behind these procedures was to uncover any potentially influential differences between this group of offenders, and the remaining Counter-point participants. Specifically, one-way analyses of variance were conducted on age, risk, sentence length, and pre-assessment scores on the derived measures of antisocial attitudes and neutralization whereas Chi-square analyses were performed on race, marital status and type of offence for current sentence. Results are reported, in part, in the table below.

Mean Differences on Continuous Variables for Program Participants

	Group			<i>F</i>
	Completers Pre and Post	Completers Pre Only	Non-Completers Pre Only	
Age	35.51 (226)	37.01 (20)	32.39 (93)	3.63*
Risk ^a	.04 (202)	-3.06 (18)	-3.94 (81)	5.86**
Sentence Length ^a	4.91 (215)	5.69 (20)	4.95 (88)	.32
Antisocial Attitudes	69.98 (226)	77.25 (20)	78.04 (93)	1.15
Neutralization	-27.50 (226)	-27.47 (20)	-25.92 (93)	2.10

Note. Number of cases (n) in parentheses.

^aSome cases missing due to unavailability of data.

* $p < .05$. ** $p < .01$.

Findings suggested that the groups were comparable on the majority of the variables examined. At the beginning of the program, whether they completed the program and/or the post-assessment battery, offenders were similar in terms of sentence length ($F(2, N=323) = .32, ns$), race ($\chi^2 = 13.10, ns$), marital status ($\chi^2 = 8.11, ns$), type

of offence ($\chi^2 = 24.13$, *ns*), and even more importantly, on the extent to which they endorsed antisocial attitudes ($F(2, N=339) = 1.15$, *ns*) and approved of the use of techniques of neutralization ($F(2, N=339) = 2.10$, *ns*). The only variables that varied significantly between the groups at the start of the program were age ($F(2, N=339) = 3.63$, $p < .05$) and risk ($F(2, N=301) = 5.86$, $p < .01$).

In spite of this, post-hoc comparisons performed using the Hochberg's GT2 approach to control for differences in sample size between the groups further revealed that only the group of offenders who completed the program and participated in both the pre- and post-assessments significantly differed from the non-completers. Mean differences between the two groups were $D = 3.12$ for age and $D = 3.98$ for the level of risk ($p < .05$ and $.01$, two-tailed, respectively). In other words, offenders who failed to complete the program were slightly younger, and were considered at a fairly higher risk to reoffend, compared to offenders who completed not only the program, but also the two testing sessions. That is, offenders who completed the program, but failed to participate in the post-test battery were similar in both age and risk, to the other two groups of offenders.

Based on this information, and keeping in mind that the number of offenders included in this group represented a relatively small portion of the total number of Counter-Point participants, the use of pre-test scores to represent the level of endorsement of antisocial attitudes and neutralization for offenders who completed the program, but for whom post-assessment data were not available, appeared reasonable. To examine the relationships among antisocial attitudes, neutralization and criminal

behaviour, post-assessment data were therefore used for 226 offenders whereas pre-assessment data were used for the remaining 113 offenders.

Appendix F

Estimates of Logistic Regression Analyses

Despite the fact that there has been some controversy over what represented an appropriate analogue to the linear regression R^2 , a measure that maintains the correspondence between the -2LL statistics for logistic regression and the sums of squares for linear regression analyses, and so that parallels the SSR/SST ratio, has been profitably derived. This measure, which has been described by Hosmer and Lemeshow (1989) as R^2_L , corresponds to the proportional reduction in chi-square or the absolute value of the log-likelihood. R^2_L is calculated by dividing the model chi-square by the original -2LL, that is the log-likelihood before any variable is entered into the equation. Therefore, R^2_L is a measure of how much the badness-of-fit of the model improves as a result of the inclusion of the predictor variables. In terms of interpretation, the measure consequently provides a gauge of the substantive significance of the model, consequently allowing for direct comparison of logistic and linear regression problems. Based on this information, Hosmer and Lemeshow's R^2_L statistics was considered the measure of choice for reporting the findings from this study.

For ease of comparison of the different models involving independent variables measured using different scales, standardized (partial) logistic regression coefficients were further presented in the tables of results as an alternative to the more commonly reported unstandardized (partial) logistic regression coefficients. At the time this study was conducted, because existent statistical softwares did not provide standardized logistic regression coefficients, these latter were hand-calculated. This was accomplished by multiplying, for each model, the unstandardized regression coefficient with both the

multiple regression coefficient as well as the standard deviation of all independent variables entered in the equation, and subsequently dividing the resultant score by the standard deviation of the predicted values for the logit of the dependent variable (i. e., $b^* = b_{s_x R} / s_{\text{logit} \hat{y}}$). Support has previously been offered for the fact that these resulting standardized partial logistic regression coefficients, or b^* , closely parallel the interpretation of standardized partial regression coefficients, or β , in linear regression analysis (Menard, 1995), and so were considered ideal for inclusion in this study.

*Appendix G**The Differentiation of Offenders into Groups*

As previously noted, most offenders in this study exhibited a low to moderate level of endorsement of antisocial attitudes, and hardly made use of techniques of neutralization. This represented a potential shortcoming in this investigation as it has been demonstrated statistically that the lack of variation in independent variable(s) makes it more difficult to account for, or explain, variation in any given dependent variable (Hanushek and Jackson, 1977). The splitting of offenders into groups necessary to examine the simple effects of neutralization at different levels of antisocial attitudes was therefore made considering the extent to which offenders deviated from the mean value of the total sample. Doing so resulted in the comparison of extreme groups, consequently maximizing between-groups differences, and so reducing the impact of the limitation associated with the non-normality of the frequency distributions. Furthermore, it has been argued that, in the absence of a theory to help decide on which values to use as cut-off scores for the different groups, having “low” representing one standard deviation below the sample mean, “medium” the region of the sample mean (i. e., + and - one SD), and “high” one standard deviation above the mean is a reasonable strategy (Duntelman, 1989).

Appendix H

Simple Effects of Neutralization on Recidivism at High, Medium, and Low Levels of Antisocial Attitudes

Standardized Logistic Regression Coefficients for the Logistic Regression Models Predicting Suspensions from Neutralization

Variable	Antisocial Attitudes		
	High (n = 53)	Medium (n = 194)	Low (n = 53)
Neutralization			
b^*	-.07	.01	.03
DM	73.10	210.14	51.29
R^2_L	.00	.00	.00

Standardized Logistic Regression Coefficients for the Logistic Regression Models Predicting Revocations from Neutralization

Variable	Antisocial Attitudes		
	High (n = 53)	Medium (n = 194)	Low (n = 53)
Neutralization			
b^*	-.03	.04	-.02
DM	67.85	191.71	37.41
R^2_L	.00	.00	.00

Standardized Logistic Regression Coefficients for the Logistic Regression Models Predicting New Offences from Neutralization

Variable	Antisocial Attitudes		
	High (n = 53)	Medium (n = 194)	Low (n = 53)
Neutralization			
b^*	.08	.03	-.28
DM	70.82	241.39	63.70
R^2_L	.01	.00	.09