

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

**ANTISOCIAL ATTITUDES AND ANTISOCIAL BEHAVIOUR:  
AN INVESTIGATION OF ANTISOCIAL ATTITUDES  
IN A NEW ZEALAND  
NON-OFFENDER SAMPLE**

A thesis presented in partial fulfillment of the requirements  
for the degree of Master of Arts in Psychology  
at Massey University, Albany

**REBECCA CARGILL**

**2004**

## ABSTRACT

The purpose of the present study was to investigate the extent of antisocial attitudes present in a non-offender sample, using the Measures of Criminal Attitudes and Associates (MCAA) and the Criminal Sentiments Scale-Modified (CSS-M). Despite the recognition of the importance of antisocial attitudes for predicting criminal and antisocial behaviour, there is a lack agreement on the specific conceptualisation of antisocial attitudes. Although there is promising research using reliable and valid attitude measures with offenders, it is unsure whether these attitudes are specific to offenders, and can be used to differentiate between offending and non-offending groups. In addition, these attitude measures have been used little with offenders, or non-offenders in New Zealand. The College of Education students in the present study were found to have less antisocial attitudes than Canadian offenders, but had more antisocial attitudes than expected. It was also found that antisocial attitudes as measured by the MCAA, could significantly explain antisocial behaviour in this sample, as measured by the Self-Report Early Delinquency Instrument (SRED). Issues with particular items on the MCAA and CSS-M are explored and it is suggested that these measures may need to be modified for use with a New Zealand population. However the MCAA shows promise in explaining antisocial behaviour, and its potential uses are explored. Implications for the assessment and treatment of offenders are discussed, as well as future directions for antisocial attitudes research.

## ACKNOWLEDGEMENTS

I would like to thank my supervisor Mei Williams for all her constructive suggestions and challenges to assumptions. Without your support, this thesis would not have progressed. I thank you for your willingness to give time, even though you had many other things to worry about. Your promptness and availability was much appreciated.

Thank you to Linda Kemp in the Psychology department at Albany for all your help with organizing printing, funding, and all other administrative requirements. The support you give to all students is much appreciated. The University provided funding for the costs of this project and that assistance was greatly appreciated.

Thank you to the students at the Auckland College of Education, whose willing participation made this thesis possible. My particular thanks goes to all those staff who facilitated access to students, especially those staff who allowed class time for me to administer the questionnaire. Thanks to Patricia O'Brien for sending me in the right direction, Margaret Turnbull for negotiating with departments, and Robin Fox, Sandra Chandler, and Isabel Browne for negotiating with staff in their department on my behalf.

I would also like to thank my partner, Dan, for his support and understanding, and all those everyday ways he reduced stress. Thank you to Tracy for your critical eye. Thanks also to my family and friends who were always there to talk and offer some "time out." Thanks for believing in me.



## TABLE OF CONTENTS

	Page
Abstract ... ..	ii
Acknowledgements ... ..	iii
Table of Contents ... ..	iv
List of Tables ... ..	vii
<b>CHAPTER 1</b>	
<b>INTRODUCTION</b>	
1.1 Crime ... ..	1
1.2 Definitions – Antisocial Attitudes, Criminal Behaviour and Offenders ... ..	1
1.3 Personality and Attitudes ... ..	3
<b>CHAPTER 2</b>	
<b>ANTISOCIAL ATTITUDES</b>	
2.1 Antisocial Attitudes in Theories of Crime ... ..	5
2.2 Research in Antisocial Attitudes and Criminal Conduct ...	6
2.3 Measures of Criminal Attitudes ... ..	9
2.4 Limitations of Current Attitude Measures ... ..	13
2.5 Measuring Criminal Behaviour ... ..	14
2.6 Inconsistencies in the Attitude-Behaviour Relationship ...	16
2.7 Why Are Attitudes Important? – Treatment and Prediction	19
<b>CHAPTER 3</b>	
<b>THE PRESENT STUDY</b>	
3.1 Aims and Hypotheses ... ..	23

	Page
<b>CHAPTER 4</b>	
<b>METHOD</b>	
4.1 Participants ... ..	25
4.2 Measures ... ..	26
<i>Measures of Criminal Attitudes and Associates</i>	26
<i>Criminal Sentiments Scale-Modified</i>	28
<i>Self-Report Early Delinquency Instrument</i>	29
4.3 Procedure ... ..	30
 <b>CHAPTER 5</b>	
<b>RESULTS</b>	
5.1 Data Screening ... ..	32
5.2 Antisocial Attitudes ... ..	33
5.3 Antisocial Behaviour ... ..	36
5.4 Antisocial Attitudes – Comparison with other Studies ...	38
5.5 The Relationship between Antisocial Attitudes and Antisocial Behaviour ... ..	40
 <b>CHAPTER 6</b>	
<b>DISCUSSION</b>	
6.1 The Presence of Antisocial Attitudes ... ..	44
6.2 The Relationship between the MCAA and the CSS-M ...	46
6.3 The Relationship between Antisocial Attitudes and Antisocial Behaviour ... ..	46
6.4 Justification and Rationalisation ... ..	49
6.5 Appropriateness of the Antisocial Attitude Measures For New Zealand ... ..	50
6.6 Implications and Future Directions ... ..	53
6.7 Limitations of the Current Study ... ..	56
6.8 Summary and Conclusion ... ..	59

	Page
<b>REFERENCES</b> ... ..	60
<b>APPENDIX A</b> Measure of Criminal Attitudes and Associates ...	70
<b>APPENDIX B</b> Criminal Sentiments Scale-Modified ... ..	74
<b>APPENDIX C</b> Self-Report Early Delinquency Instrument (shortened)	78
<b>APPENDIX D</b> Information Sheet for Participants ... ..	81
<b>APPENDIX E</b> Hierarchical Multiple Regression Tables ... ..	84

## LIST OF TABLES

		Page
Table 1	Demographic Statistics for the Sample ... ..	26
Table 2	Correlations between the Attitude Scales ... ..	35
Table 3	Frequency of Endorsement of Each of the Items on the SRED in This Study Compared with Those of Adolescents in the Primary Validation Study ... ..	37
Table 4	Descriptive Statistics for the MCAA and the CSS-M ...	38
Table 5	Comparison of the Mean Total Scores on the MCAA and the CSS-M Found in the Present Study with Scores from Previous Studies with Offenders ... ..	39
Table 6	Comparison of the Mean Subscale Scores on the MCAA and the CSS-M Found in the Present Study with Scores from Previous Studies with Offenders ... ..	40
Table 7	Correlations between Antisocial Measures and Antisocial Behaviour ... ..	41
Table 8	Summary of Hierarchical Regression Analysis for Variables Predicting Scores on the SRED (N = 181) ... ..	42
Table 9	Correlations between Justification and Rationalisation Items on the MCAA, and the SRED ... ..	43

## CHAPTER 1

### INTRODUCTION

#### *1.1 Crime*

Crime is a growing problem in New Zealand society today, and has many negative effects. Every year, the number of crimes recorded by the New Zealand Police increases (NZ Police, 2004), and in 2003 the total number of recorded offences was 442,489. There is evidence that exposure to crime is associated with poorer health and experiencing of physical symptoms (Flett, Kazantzis, Long, MacDonald, & Millar, 2002). The prediction and prevention of crime is an important area for research. This study focuses on finding out more about one of the biggest predictors of criminal behaviour – antisocial attitudes.

#### *1.2 Definitions – Antisocial Attitudes, Criminal Behaviour, and Offenders*

Attitudes can be defined as “relatively enduring thoughts and feelings about particular people, objects, or events” (Simourd, 1997, p.52). Simourd’s definition implies that attitudes are relatively fixed once they are formed. By contrast, Allport (1954) defined attitude as “a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related. (p.45)” For this research, Allport’s definition is preferred as it includes how attitudes are all encompassing, and affect all of the individual’s actions that they are relevant to. Allport’s definition also mentions that attitudes are formed through experience, not implying that they are pre-formed. For the purpose of this study the definition of attitude used by Allport (1954) is adopted, as this research is based on the premise that attitudes can be altered.

Criminal attitudes in this study are roughly defined as those attitudes, beliefs, values, and views that have been found to relate to criminal behaviour. Beliefs and values are

similar to attitudes in that they refer to *what* a person is thinking rather than *how* they are thinking. In this study, beliefs, values, and views will be considered the same as attitudes. Criminal or antisocial attitudes will be defined as “attitudes/values/beliefs/rationalizations supportive of criminal conduct” (Simourd, 1997, p.53). Specifically, criminal attitudes in this study refer to those attitudes that are included in the Measures of Criminal Attitudes and Associates (Mills, Kroner, & Forth, 2002) and the Criminal Sentiments Scale-Modified (Simourd, 1997). These attitudes are attitudes related to the law, the legal system, the police, criminal others, entitlement, law violations, and violence. It is noted that there may be other attitudes related to criminal behaviour, but the purpose of this study is not to find them. Therefore this research is limited to those antisocial attitudes that can already be measured.

Crime can be defined in many different ways, and what constitutes criminal behaviour depends on the culture and time (Andrews & Bonta, 2003). The author chooses to use the definition given by Andrews and Bonta (2003); “Criminal behaviour refers to antisocial acts that place the actor at risk of becoming a focus of the attention of criminal and juvenile justice professionals (p.38).” However, this study focuses on antisocial behaviour, which also includes norm violating behaviour. Antisocial behaviour in this study also includes behaviours which “violate the norms of custom and tradition and are punishable by the community,” and, “actions that may be rewarding to the actor but that inflict pain or loss on others” (Andrews & Bonta, 2003, p.38).

For this study, an ‘offender’ is an individual who is currently being prosecuted by the law as a consequence of their actions. A ‘non-offender’ refers to members of the public who are not serving a sentence for criminal behaviour. A ‘non-offender’ may have engaged in norm violating behaviours and minor crimes, but will not be someone who is currently being imprisoned for their behaviour.

### *1.3 Personality and Attitudes*

Both similarities and differences exist between attitudes and personality traits. Firstly attitudes are usually related to an object or concept, whereas traits are more general and need not be related to an object or idea (Sherman & Fazio, 1983). The other very important difference is that attitudes can be changed, whereas traits are believed to be a more stable concept that changes very little (Sherman & Fazio, 1983). However, both attitudes and traits are believed to have an influence on behaviour. The attitude-behaviour relationship has not always been consistent (Liska, 1974; McBroom & Reed, 1992) and efforts have been made to find other factors that influence this relationship (Liska, 1974).

Various traits may affect the attitude-behaviour relationship including self-monitoring, self consciousness (Sherman & Fazio, 1983), and impulsivity (Luengo, Carillo de la Pena, Otero, & Romero, 1994; White et al., 1994). Eysenck's personality factors, Psychoticism, Neuroticism, and Extraversion are also thought to be related to antisocial behaviour. Various studies have found Psychoticism to be the factor relating most to delinquency (Furnham & Thompson, 1991; Romero, Luengo, & Sobral, 2001). Levine and Jackson (2004) found that Psychoticism, or more specifically the primary subscale, Disrespect for Rules, predicts self-reported antisocial behaviour. Levine and Jackson (2004) suggest that the primary subscales of the Eysenck Personality Inventory can explain antisocial behaviour better than the super factors. Disrespect for Rules is similar to the attitudes towards Law, Courts and Police measured in the Criminal Sentiments Scale-Modified, an antisocial attitude measure (Simourd, 1997), and may warrant more attention. However, an investigation of traits that influence criminal behaviour are beyond the scope of this study and will not be covered. Personality factors have not been shown to be good predictors of criminal behaviour (Gendreau, Little & Goggin, 1996) and attitudes may be a more productive focus, as these can be used as a target for change in treatment

programs (Simourd and Olver, 2002). As such, personality will not be addressed in this study.

The following sections will cover the role that antisocial attitudes have played in both classical and contemporary theories of crime, as well as the research literature on antisocial attitudes' association with criminal behaviour. The varying ways that antisocial attitudes have been conceptualised and measured will also be discussed, as well as some of the issues in measuring attitudes and behaviour, and inconsistencies in the relationship between the two. Finally, the importance of attitudes for assessing risk and informing treatment will be addressed.



## CHAPTER 2

### ANTISOCIAL ATTITUDES

#### *2.1 Antisocial Attitudes in Theories of Crime*

There have been many theories about the causes of criminal behaviour. However, antisocial attitudes have played a part in these theories beginning with early psychodynamic theories. Freud's construct of superego strength included attitudes, values, and beliefs about rule violations (as cited in Andrews & Bonta, 2003). In addition Freud mentioned a criminal type, the weak superego type, which included pro-criminal attitudes and cognitions. Glueck and Glueck (1950) in their study of predictors of criminal behaviour found that antisocial attitudes were a major predictor of criminal conduct. Antisocial attitudes included defiance, ambivalence to authority, hostility, and lack of conventional ideas (Glueck & Glueck, 1950). Hirschi (1969) suggested that criminal behaviour is linked to a lack of attachment to the opinions of family and peers, lack of commitment to and involvement in conventional pursuits, and a lack of belief in the validity of the law. So even though psychodynamic theories did not give large importance to antisocial attitudes, they were often included in some way.

Although there are some contentions about sociological theories, some sociological theories included antisocial attitudes in their explanations of crime (Andrews & Bonta, 2003). Anomie theory (Merton, 1957) saw delinquents as individuals who try to achieve conventional success in unconventional ways, which can also be a way of promoting positive changes in the social structure. Although the focus of anomie theory remains on inequalities in society, Merton (1957) includes in this theory non-supportive attitudes towards societal institutions (such as the law), and also suggests that deviant peer association contributes to the learning and reinforcement of deviant attitudes. The sub-cultural theory of Cloward (1959) also included pro-criminal

attitudes, values, and beliefs; however asserts that one has to be in the lower classes to learn these attitudes and have access to illegitimate means.

Other theories that include antisocial attitudes are the differential association theory (Sutherland & Cressey, 1978) and the recent personal, interpersonal and community-reinforcement perspective (Andrews & Bonta, 2003). Differential association theory suggests that criminal behaviour is a result of an excess of definitions favourable to criminal activity compared to those not favouring criminal activity (Sutherland & Cressey, 1978). Differential association theory also asserts that these attitudes are learnt through exposure to the criminal behaviour of others.

The most recent theory to include antisocial attitudes is the personal, interpersonal and community-reinforcement perspective (PIC-R) (Andrews & Bonta, 2003). PIC-R is based on a social learning and behavioural perspective that focuses on the antecedents and consequences of behaviour. PIC-R was developed around empirically derived predictors, giving importance to the 'Big Four' predictors - antisocial attitudes, antisocial associates, a history of antisocial behaviour, and an antisocial personality (Andrews & Bonta, 2003). Special importance is given to antisocial attitudes and antisocial associates as predictors with empirical support, and also as factors that have the potential for change (Andrews & Bonta, 2003).

Antisocial attitudes have long been included in explanations of criminal and antisocial behaviour. However, a limitation of these theories of criminal behaviour is that they do not indicate specifically what antisocial attitudes or attitudes favorable to crime actually are.

## 2.2 Research in Antisocial Attitudes and Criminal Conduct

A meta-analysis conducted by Gendreau, Little and Goggin (1996) found that antisocial attitudes are one of the biggest predictors of criminal behaviour. Another meta-analysis found that antisocial attitudes are also one of the strongest predictors of

prison misconducts (Gendreau, Goggin, & Law, 1997); suggesting antisocial attitudes may be useful for predicting behaviour in prison, as well as behaviour after release. However, as there is little consensus about how antisocial attitudes should be conceptualised, the power of antisocial attitudes for predicting criminal behaviour may be underestimated. Antisocial attitudes may be able to predict criminal behaviour more accurately when research finds the specific attitudes that predict criminal behaviour, and researchers create assessment instruments that accurately measure these.

If researchers can verify the specific attitudes that lead to offending then they can design more effective treatment programmes to alter these attitudes, and reduce recidivism. Reliable and valid attitude measures which can help predict risk and change, can also be created when specific attitudes are found. The antisocial attitudes of criminal offenders may be a fruitful area of research for correctional psychology and should be given more attention.

Different attitudes have been found to predict criminal behaviour (Gendreau, Little & Goggin, 1996; Hoge, Andrews, & Leschied, 1994; Hubbard & Pratt, 2002), however there is little agreement on the exact attitudes that offenders hold which makes them different to non-offenders. Mylonas and Reckless (1963) suggest that offenders have attitudes of self-justification, loyalty, belief in luck, and a tendency to exaggerate society's shortcomings. It has also been suggested that neutralizations are related to criminal and norm violating behaviours (Simourd, 1997). Neutralizations are ways of justifying behaviour so it is no longer wrong in the eyes of the offender, to avoid guilt and shame (Sykes and Matza, 1957). Sykes and Matza (1957) suggest that neutralizations can include a denial of responsibility, denial of harm to others, belief that the victims deserved it, beliefs that conforming society are against you, and placing more importance in peer norms than societal norms.

Simourd and Olver (2002) suggest that antisocial attitudes include negative attitudes towards the law, criminal rationalisations, and an entrenched general criminal

attitude. Samenow (2004) asserts that antisocial attitudes involve numerous thinking errors, including entitlement, superiority, valuing the forbidden, and blaming others. In contrast to Simourd and Olver (2002), Samenow (2004) suggests that criminals do not have negative attitudes towards the law and authority; but in fact admire police and authorities, unless they interfere with their goals. Criminals know right from wrong and believe that those who do wrong should be punished. They therefore value and respect the police for performing this duty for society. However, Samenow (2004) suggests that although the criminal knows right from wrong, he has different standards for himself. There are certain groups the criminal would not target, and crimes the criminal would not commit, as this would be wrong. However, other crimes he believes he should not be apprehended for, as he does not see them as wrong by his own personal standards. Andrews, Leschied and Hoge (cited in Andrews & Bonta, 2003) suggest that the antisocial attitudes related to offending include a high tolerance for deviance in general, rejection of the validity of the law, rationalizations for law violations, interpretations of a wide range of stimuli as reasons for anger, and a thinking style and content that are generally antisocial.

Antisocial attitudes that consistently appear in criminal behaviour research and theory are a lack of responsibility for one's actions (Mills, 2000; Samenow, 2004; Simourd & Olver, 2002; Sykes & Matza, 1957; White & Walters, 1989), negative views of society and the law (Mylonas & Reckless, 1963; Simourd & Olver, 2002; Sykes & Matza, 1957), and a general sense that one should be treated differently to everyone else (Samenow, 2004; Walters, 1995). Antisocial associates and the attitudes the criminal has towards criminal others, also seem to be consistent predictors of criminal behaviour (Mills, 2000; Mills, Kroner, & Forth, 2002).

Many of these ideas look promising for explaining criminal behaviour; but theories about the attitudes that predict criminal behaviour are of little value unless they can be measured. It is also very important in developing risk assessment measures that there is a guiding theory (Watt, Howells, & Delfabbro, 2001). Some of the theories and research discussed have been used to formulate measures of criminal or antisocial

attitudes. Criminal attitude measures that have been empirically validated, and their different conceptualisations of criminal attitudes are discussed below.

### 2.3 Measures of Criminal Attitudes

Research into antisocial attitudes and their relationship to criminal behaviour have used varying measures of attitudes. Each measure suggests a different conceptualisation of antisocial attitudes. Some measures focus on *how* an individual thinks, while others focus on *what* an individual thinks. This section describes current measurement instruments that focus on criminal thinking, and that have been empirically validated.

The Psychological Inventory of Criminal Thinking Styles (PICTS) (Walters, 1995) measures thinking errors, or cognitive distortions that serve to maintain criminal behaviour, through the process of rationalisation. Walters' (1995) conceptualisation of criminal attitudes comes from his theory of a criminal lifestyle; a lifestyle which arises from certain conditions, choices and cognitions. The thinking errors represented in the PICTS were drawn from the fifty two thinking errors identified by Yochelson and Samenow (1976). Walters (1995) chose eight of these thinking errors— rationalisation of the violation of social norms (Mollification); denial of own feelings of fear and anxiety (Cutoff); attitudes of ownership and justification (Entitlement); belief in the control and manipulation of others by use of aggression (Power orientation); suppression of guilt by performing good deeds (Sentimentality); belief that one is unsusceptible to the negative consequences of crime (Superoptimism); poor problem solving ability and a biased attitude to one's own thoughts, plans, and ideas (Cognitive Indolence); and good intentions but poor self-discipline (Discontinuity) (Egan, McMurrin, Richardson & Blair, 2000).

The PICTS conceptualises criminal thinking as an avoidance of problems; hostility and arrogance towards others; self-deception; and denial of harm to others (Walters, 1995). The scales Cutoff, Sentimentality, Cognitive Indolence, and Discontinuity

were found to relate to criminal history (Walters, 1995). However, the PICTS is a very long instrument and is not parsimonious. The validity scales of the PICTS have been found to be unreliable (Walters, 1995), and only three of the scales have been found to relate to criminal behaviour (Walters, 1996). This suggests the PICTS should be modified to include only those scales that are relevant, which may also improve the measure's parsimony.

The Criminal Attribution Inventory (CRAI) (Kroner, Mills, Yessine, & Hemmati, 2004) uses Sykes and Matza's (1957) concept of neutralization by measuring the degree of attribution of blame to others. It conceptualises criminals as neutralizing their criminal behaviour by blaming psychopathology, personal traits, victims, alcohol, society, and randomness (Kroner et al., 2004). Another instrument that measures neutralization and attribution of blame is the Avoidance of Responsibility Scale (ARS) (Powell, Rosèn, & Huff, 1997). The ARS measures minimization, denial, blaming others, playing the victim, rationalisations, and lack of empathy (Powell et al., 1997). The ARS relates to disruptive behaviour (Powell et al., 1997; Sutton, Reeves, & Keogh, 2000) and conduct disorder in adolescents (Powell, & Rosèn, 1999).

The CRAI and the ARS are limited in their usefulness for predicting criminal behaviour as they only measure one aspect of criminal thinking, disresponsibility. There are other aspects of antisocial attitudes that these measures ignore, so it is unlikely either measure is suitable for use on its own. Each measure may add to other attitude measures, such as the Criminal Sentiments Scale-Modified (Simourd & van de Ven, 1999) and the Measures of Criminal Attitudes and Associates (Mills, Kroner, & Forth, 2002), as disresponsibility is not assessed by these measures. The ARS has been shown to relate to disruptive behaviour, and conduct disorder but it is unknown whether it relates to criminal behaviour.

The How I Think Questionnaire (HIT) (Barriga & Gibbs, 1996) measures cognitive distortions; or inaccurate attitudes, thoughts and beliefs. Items represent four



different categories taken from the Diagnostic and Statistical Manual's criteria for oppositional defiant and conduct disorders. The four categories are stealing; lying; physical aggression; and disrespect for rules, laws, or authority (Barriga and Gibbs, 1996). Cognitive distortions involved in criminal behaviour are conceptualised as self-centred attitudes, blaming others, minimizing or mislabeling, and assuming the worst (Barriga & Gibbs, 1996). The HIT has been shown to correlate with self-reported antisocial behaviour in male adolescents (Barriga & Gibbs, 1996). The ARS and the HIT are limited as they were designed and have been primarily used with adolescents. This limits the ability to generalise to adult offender groups. Future research could investigate the predictive validity of these measures with adult groups.

The Pride in Delinquency Scale (PID) (Shields & Whitehall, cited in Simourd & van de Ven, 1999) also conceptualises antisocial attitudes as *how* a criminal thinks, by measuring the degree of pride or shame felt in participating in criminal acts. Simourd (1997) found the PID to measure two concepts of attitude: attitudes towards offences, and attitudes related to criminal morals. Simourd and Olver (2002) found the PID to reflect generic criminal attitudes, attitudes about the law, rationalizations, and a criminal self-concept. The PID has moderate correlations with incarceration and misconduct (Simourd, 1997; Simourd & van de Ven, 1999). The PID is short and parsimonious, however it has not been found to predict criminal behaviour on its own. The PID has been found to be most useful in predicting criminal behaviour when used in conjunction with the CSS-M (Simourd & van de Ven, 1999).

The instruments discussed so far, all measure *how* a person thinks more than *what* a person thinks. Simourd and Olver (2002) suggest it would be more beneficial to focus on what a person thinks, rather than how a person thinks, to prevent recidivism. A focus on how a criminal thinks they argue, can actually increase criminal behaviour, as the offender learns to be more efficient.

The Criminal Sentiments Scale-Modified (CSS-M) (Simourd & van de Ven, 1999) and the Measures of Criminal Attitudes and Associates (MCAA) (Mills, Kroner, &

Forth, 2002) measure *what* a person thinks. The original Criminal Sentiments Scale (Gendreau, Grant, Leipziger, & Collins, 1979) was developed from the work of Mylonas and Reckless (1963), and Sykes and Matza (1957). Criminal attitudes are conceptualised as negative attitudes towards the law, courts, and police; tolerance for violations of the law through the process of rationalisation; and identification of oneself as similar to other criminals (Simourd and Olver, 2002). The CSS-M correlates with misconducts (Simourd, 1997) and incarceration (Simourd & van de Ven, 1999). The CSS-M has been able to overcome some of the shortcomings of the CSS, however it has still not been found to significantly explain criminal behaviour when used on its own, suggesting it is not measuring all of the specific attitudes that relate to offending.

The Measures of Criminal Attitudes and Associates (MCAA) (Mills, Kroner, & Forth, 2002) is a recent measure that conceptualises antisocial or criminal attitudes in a similar way to the CSS-M. Mills, Kroner and Forth (2002) identify criminal attitudes as an acceptance or rationalisation of violence; attitudes of entitlement; intent to engage in criminal behaviour; and identification with and influence of criminal others. The MCAA also includes elements of *how* a person thinks by measuring rationalisations and justifications, which are related to the neutralization theory of Sykes and Matza (1957). Rationalisations involve excuses for inappropriate behaviour, while justifications present inappropriate behaviour as acceptable (Mills, Kroner, & Forth, 2002). The endorsement of justification items suggests the person has a stronger antisocial attitude.

Mills, Kroner and Forth (2002) seem to assume violence is involved in all criminal behaviour; and include entitlement as a theme that regularly appears in clinical interviews. Antisocial intent is included in their conceptualisation of criminal attitudes as intent is a better predictor of behaviour than attitudes in general (Ajzen, 1988). The Total score, Antisocial Intent, and Antisocial Associates scales have been found to significantly correlate with criminal history (Mills, 2000; Mills, Kroner, & Forth, 2002) and help to predict recidivism (Mills, Kroner, & Hemmati, 2004).



The MCAA needs to be tested with more diverse offender samples, such as female offenders, juveniles, and mentally disordered offenders, to test whether it measures a general attitude construct. The predictive validity of the MCAA also still needs to be investigated. Also more testing needs to be done with non-offender samples to investigate whether the attitudes measured in the offender population are significantly different from a non-offender sample. The MCAA is useful as it measures not only the antisocial attitudes a person holds, but also the antisocial way they think. It has also been found to explain criminal behaviour better than any other criminal attitude measure (Mills, 2000; Mills, Kroner, & Forth, 2002).

#### *2.4 Limitations of Current Attitude Measures*

If attitudes are to be useful for risk assessment, we must be sure that these sets of attitudes are unique to offending populations. Obviously there will be some overlap in the attitudes held by an offending and a non-offending group, as most people engage in some illegal, or at the least, norm violating behaviour (Romero, Luengo, & Sobral, 2001; Nettler, 1984). However for attitudes to be useful for prediction, the attitudes, or extent of antisocial content must be significantly different from a non-offending sample. As Sutherland and Cressey (1957) mention, for a theory to adequately explain criminal behaviour, it needs to include causal conditions that are present when crime is engaged in, and not present when individuals refrain from crime. Despite this, the crime literature does not contain much about the extent of antisocial attitudes present in a non-offending sample.

It has been noted that the Criminal Sentiments Scale–Modified (CSS-M) has been used with various non-offending samples (Simourd, 1997) but there is little comparison between the scores of the two populations. The Measures of Criminal Attitudes and Associates (MCAA) is a fairly recent measure and has not been used with a non-offending sample, to investigate its ability to discriminate between

offenders and non-offenders. Additionally there is little literature on the use of these measures in New Zealand.

Most of the current attitude measures need more research in predictive validity. Some of the studies have shown that antisocial attitude measures relate to criminal behaviour, but have not established causality. Therefore there is no certainty that criminal attitudes can predict criminal behaviour. In addition it is unclear what kinds of criminal behaviour these attitude measures explain. The CSS-M and the PID have been shown to predict criminal behaviour in violent offenders, but not non-violent offenders (Simourd, & van de Ven, 1999). More research needs to be conducted to investigate whether antisocial attitudes can explain criminal behaviour in general, or only specific types of crime. Research also needs to be conducted to investigate whether these measures are suitable for use with all offender types.

It is also clear that none of the antisocial attitudes discussed can comprehensively explain criminal behaviour on their own. Research involving each measure shows that some scales significantly relate to criminal behaviour, while others do not (Mills, 2000; Mills, Kroner, & Forth, 2002; Mills, Kroner, & Hematti, 2004; Walters, 1996). This results in a lack of parsimony in each of the measures, which may be achieved by modifying the measure to include only those scales which are relevant to explaining criminal behaviour.

### *2.5 Measuring Criminal Behaviour*

In assessing the predictive validity of antisocial attitude measures, researchers need to be sure they can accurately measure criminal behaviour. There are various ways in which crime can be measured. One source is the official police record for the individual; however generally official records are vast underestimates of the actual crime a person has committed (Andrews & Bonta, 2003; Lab & Allen, 1984). Self-reported delinquency is another method that can be used; however self-reports also have their limitations. Self-reports of criminal behaviour can show social response

bias, in which the individual responds in a way that makes them appear more socially desirable (Mills, Loza & Kroner, 2003), and can also be affected by memory (Lab & Allen, 1984). However self-reports can still be useful in measuring criminal behaviour. Official data has been found to be very similar to self-report data for status and felony offences (Lab & Allen, 1984). Other research that has found that self-reports of delinquent behaviour can be reliable under certain conditions, is explored below.

Self-reported offending has been found to predict current and future court referrals (Joliffe, Farrington, Hawkins, Catalano, Hill & Kosterman, 2003), and have good agreement with official arrests (Babinski, Hartsough, & Lambert, 2001; Maxfield, Weiler, & Widom, 2000). However the extent of agreement varies with the type of offence. High agreement between self-reported offending and official data have consistently been found for drug offences (Babinski et al., 2001; Joliffe et al., 2003; Maxfield et al., 2000), while consistently low agreement has been found for assault and violent crimes (Babinski et al., 2001; Maxfield et al., 2000).

Agreement between self-reported offending and official records has also been found to depend on offender characteristics. Research has found that those who have more arrests or convictions, will be more accurate in their self-reports of criminal behaviour (Babinski et al., 2001; Maxfield et al., 2000). This suggests that self-reports would be particularly useful with serious repeat offenders; who according to Andrews and Bonta (2003) are at high risk for recidivism, and should be the main focus for treatment. Interestingly Joliffe et al. (2003) found that self-reports correlated most with court referrals in males; and correlated least in Asian participants, especially Asian females. Self-reported delinquency has also been found to more accurately predict arrests in males more than females; and whites more than blacks. However the accuracy of self-reported delinquency did not differ between whites and blacks when controlling for number of arrests (Maxfield et al., 2001). It seems there may be some variation in reporting depending on gender and culture; and that the accuracy of self-reporting depends on the type of crime committed. It also

seems the more crimes that the offender has been apprehended for, the more accurate the self-report of criminal behaviour.

Babinski, Hartsough, and Lambert (2001) suggest that self-report is the most valuable method to use when investigating less serious crimes. However Joliffe et al. (2003) found that self reporting of retrospective criminal behaviour (all past behaviour) did not correlate well with prospective reports taken at the time. They suggest that the most accurate self-report method to use is one asking about criminal behaviour in the past year. This causes problems for research like this that wants to find out about antisocial behaviour committed across the lifespan. Therefore this research may not be a perfectly accurate representation of antisocial behaviour, as reporting may be affected by memory.

Although there are limitations to self-reported delinquency, self-reports can reliably and accurately measure behaviour (Liska, 1974)), making self-reported delinquency a viable option in research.

### 2.6 Inconsistencies in the Attitude-Behaviour Relationship

Research has found the attitude-behaviour relationship to be an inconsistent and complex one (Liska, 1974; McBroom & Reed, 1992). This has prompted researchers to look at what factors may make this relationship inconsistent. There are three main problems that have been addressed in research: measurement problems, other competing attitudes, and social support (Liska, 1974).

Issues have been raised about the accuracy of measures using self-reported behaviour, because of social desirability bias. People answer questions with the answer they feel is most socially desirable (Liska, 1974). However this is not just how people act in the testing situation, but in fact in every day situations. Hyman (1949) argues that removing items that are socially desirable, is to remove the reality from the testing situation and make it invalid. In everyday situations people are confronted with

socially desirable ways of acting, and frequently do act in a socially desirable way. Research suggests that self-reports are a useful way of measuring behaviour and that other ways of measuring behaviour would not significantly increase accuracy (Liska, 1974).

Liska (1974) also argues that the attitude measure being used needs to be as general or as specific as the behaviour being measured. He found that the predictive accuracy of attitude measures associated with a general behaviour, increased as the generality of the attitude measure increased; and conversely when associated with a specific behaviour, predictive accuracy increased as the attitude measure increased in specificity. Liska (1974) also suggests that if attitude measures are to predict behaviour, more than one attitude domain needs to be measured. For example, when trying to predict antisocial behaviour, it is not sufficient to measure only attitudes towards the law. Measures need to be matched to the generality of behaviour, have to be relevant to everyday life, and need to measure more than one domain.

The attitude structure being measured is also believed to affect the attitude-behaviour relationship. Bagozzi and Burnkrant (1979) found that an attitude is best conceptualised as an affective part and a cognitive part. They also found support for the idea that an attitude cannot predict a single act, but rather is a more useful predictor of multiple acts. For example, knowing the criminal attitudes of an offender, does not predict accurately the specific crime that the offender will commit; but can be useful in predicting whether that person will engage in any type of crime or not.

Social influence has also been found to affect the attitude-behaviour relationship. If there is social support for the attitude, then the attitude-behaviour relationship will be stronger (Liska, 1974; Sechrist & Stangor, 2001; Smith & Terry, 2003). Also the more antisocial and more public a behaviour is, the greater the effects of social norms on that behaviour (Schofield, 1975). However the group norm only has an effect on the attitude-behaviour relationship if the individual identifies strongly with the group

(Smith & Terry, 2003; Terry & Hogg, 1996). It seems social support does have an effect on behaviour but only in the presence of a norm, and may be affected by the degree to which the individual identifies with the group. This might help to explain some of the lack of agreement between antisocial attitude measures and behaviour.

Andrews and Kandel (1979) found support for the idea that attitudes are a better predictor of behaviour, than behaviour is a predictor of attitudes. Using adolescent marijuana use, they also found that attitudes differ in their effects on behaviour, according to what stage of engagement the individual is at. If the individual is at the initiation phase then attitudes have little influence, as social influence impacts on behaviour more. This may have limited usefulness for adults, as it was carried out with an adolescent sample, but may have implications for the crime and attitude link. If a person is just beginning to participate in crime, then attitudes may have little value for prediction; but for high risk, repeat offenders, attitudes may be very fruitful for assessment and intervention. This suggests that for those just beginning to engage in crime, associates may be a better predictor.

In previous research, associates have often been found to be a better predictor of criminal behaviour than antisocial attitudes (Andrews & Bonta, 2003). Andrews and Kandel's (1979) research may help to explain this, or it may be that attitudes and associates interact. However, Engels, Luijpers, Landsheer, and Meeus (2004) found contradictory results. It was found that before adolescents became delinquent, the attitude toward delinquency was a strong predictor of delinquent behaviour. However when the individual had already engaged in the behaviour, attitudes had no influence on the continuation or cessation of delinquent behaviour. Engels et al. (2004) may not have been measuring the specific attitudes that relate most to criminal behaviour, and therefore attitudes appeared to be of little use in predicting continuation of delinquent behaviour. However these results deserve further attention.

There are many factors that affect the relationship between attitudes and behaviour, and these factors need to be addressed when interpreting the results of research into antisocial attitudes, such as the present study.

### 2.7 Why are Attitudes Important? - Treatment and Prediction

Not only is it important to identify the specific attitudes related to criminal behaviour using valid measures, for accurate risk assessment; but also to identify appropriate targets for change. Identification of attitudes relevant to criminal behaviour can be used for developing effective treatment and rehabilitation programmes.

Andrews, Zinger, Hoge, Bonta, Gendreau, and Cullen (1990) in a meta-analysis of studies, found that the effectiveness of rehabilitation programmes was dependent on adherence to the principles of risk, need, and responsivity. The risk principle refers to giving treatment to the offenders most at risk of re-offending; need refers to targeting criminogenic needs in treatment, that is, those things that are dynamic and relate most to criminal conduct; and responsivity is about tailoring the intervention to suit the offender (Andrews & Bonta, 2003). Andrews et al. (1990) found that rehabilitation programs can indeed reduce recidivism, and are more likely to reduce recidivism if they adhere to these three principles. On average, appropriate treatment reduced recidivism by 50%, which is a substantial reduction (Andrews et al, 1990). Dowden and Andrews (2000) also found that treatment for violent offenders is more effective if it takes into account the three principles of risk, need, and responsivity. Treatment for offenders that adheres to the three principles would target specific antisocial attitudes (a criminogenic need), involve those criminals who have the most antisocial attitudes (risk), and communicate with the offender in a way that is structured similar to how a criminal thinks (responsivity).

Samenow (2004) suggests that rehabilitation needs to focus on the lifelong, entrenched thinking patterns of the criminal, no matter what specific crime was committed. Rehabilitation needs to change the thinking errors, teach new concepts,



and new ways of structuring their thoughts (Samenow, 2004). However Simourd and Olver (2002) suggest that it will be more beneficial to focus on attitude content, rather than process. Simourd and Olver (2002) suggest that programmes which focus on thinking processes can actually increase criminal behaviour, by improving the offender's thinking abilities, as ignoring the fact that this thinking is still criminally oriented. However, the type of thinking processes Samenow (2004) is targeting are the criminal thinking errors that are measured by the PICTS (Walters, 1995), and are very similar to some of the antisocial attitudes identified by others (Mills, Kroner, & Forth, 2002; Simourd, 1997).

Researchers have found that a focus on attitudes and thinking in rehabilitation, can lead to a change in attitude and reductions in recidivism. Walters (2002) found that decreases in criminal thinking, as shown on the PICTS, could be achieved after participation in a 10 week programme focusing on the eight criminal thinking styles, other variables related to the criminal lifestyle, and skills useful in promoting change. Simourd (as cited in Simourd & Olver, 2002) also found that criminals with a high criminal self-concept, showed a significant change in criminal attitudes after participation in a direct attitude change programme. However these studies did not look at any recidivism or other outcome data, so it is unknown whether these attitude changes actually translated into long-term behaviour change.

Wormith (1984) found that a change in criminal attitudes could be achieved after an eight week programme; and that these changes were related to a reduction in recidivism. Although the reduction in recidivism was not significant, there were positive changes in participants' behaviour in the prison; and after release from prison, a reduction in the seriousness of their offending at three year follow-up. Although Wormith (1984) does not state what attitudinal measures he used, he reported using instruments that measured attitudes towards the justice system, identification with criminal others, and tolerance for law violation. He only mentions a decrease in identification with criminal others after participation in the discussion group. It is therefore unclear whether the programme targeted those attitudes most



related to criminal behaviour; and therefore may not have produced the reductions in re-offending that would have been expected.

The Cognitive Self-Change Programme (CSC), which focuses on identifying thinking patterns and how to control them, has been used with violent offenders and has been shown to reduce rates of recidivism from 76.7% to 45.5%, using a control group (Bush, as cited in Polaschek & Reynolds, 2000). Hening and Frueh (1996) also report reduced recidivism rates of 50% for those who complete the CSC Programme, compared to 70.8% for controls. Offence-Focused Problem Solving, a group based treatment that focuses on attitude change, cognitive skills, and social problem solving, has been shown to reduce antisocial attitudes; however recidivism data is not reported (McGuire & Hatcher, 2001). Offenders who participate in the programme have less criminal intent, more victim empathy, and see crime as less worthwhile. Other research also provides tentative support for the effectiveness of rehabilitation programmes that focus on changing thoughts and attitudes (Allen, MacKenzie, & Hickman, 2001).

New Zealand treatment programmes that have targeted attitudes to offending have been found to be effective in reducing recidivism; but they have focused only on specific types of crime, like violence or sexual offending (Anstiss, 2003). As these programmes only focus on variables related to a specific type of offending, they are not effective in reducing participation in crime in general (Anstiss, 2003). The Straight Thinking Programme focuses on general criminal thinking and cognitive skills, and is similar to the CSC Programme in Canada (Anstiss, 2003). The Straight Thinking Programme aims to reduce general offending, but no significant differences have emerged between completers and a control group (Anstiss, 2003).

Despite the limitations of these studies, they provide preliminary evidence for the effectiveness of focusing on attitude change in treatment programmes. Rehabilitation and treatment programmes targeting antisocial attitudes can be effective in reducing recidivism. The identification of the specific attitudes that are predictive of criminal

behaviour can be valuable in making rehabilitation more effective, as well as assessing which offenders are most at risk of re-offending.

## CHAPTER 3

### THE PRESENT STUDY

Despite the recognition of the importance of antisocial attitudes for predicting criminal and antisocial behaviour, there is a lack agreement on the specific conceptualisation of antisocial attitudes. Although there is promising research using reliable and valid attitude measures with offenders, it is unsure whether these attitudes are specific to offenders, and can be used to differentiate between offending and non-offending groups. In addition, these attitude measures have been used little with offenders or non-offenders in New Zealand. This study aims to use two empirically validated and theoretically relevant antisocial attitude measures with a non-offending group, to get an indication of the extent of antisocial attitudes present in New Zealand society in general.

#### *3.1 Aims and Hypotheses*

##### **Aims:**

1. To assess the extent of antisocial attitudes in a New Zealand non-offender sample, using the Measures of Criminal Attitudes and Associates (MCAA) and the Criminal Sentiments Scale-Modified (CSS-M).
2. To investigate the relationship between the MCAA and the CSS-M.
3. To investigate the relationship between antisocial attitudes, and antisocial behaviour, as measured by the Self-Report Early Delinquency Instrument (SRED), in a New Zealand non-offender sample.
4. To investigate the relationship between rationalisations and justifications; and antisocial behaviour.
5. To assess the appropriateness of the MCAA and the CSS-M for use with a New Zealand population.

**Hypotheses:**

It is hypothesised that:

1. the non-offender sample in this study will have lower antisocial attitudes, as measured by the MCAA and the CSS-M, than offenders in overseas studies
2. the MCAA and the CSS-M will measure similar constructs, and will be correlated with each other
3. scores on the MCAA and the CSS-M will predict antisocial behaviour, as measured by the SRED
4. justification statements will relate to antisocial behaviour more strongly than rationalisation statements, and
5. the MCAA and the CSS-M will be appropriate for use with a New Zealand sample.

## CHAPTER 4

### METHOD

#### *4.1 Participants*

Participants in this study were volunteers from the Auckland College of Education (ACE). Participants ranged from first year students to year four students, and also included some of the teaching staff. In the initial distribution, 170 questionnaires were given out to classes of 15-25 students, in the Department of Professional Inquiry. Three of the eight classes were allowed class time to complete the questionnaire. From these classes, the researcher received 48 questionnaires back immediately. The rest of the participants were given a freepost envelope to send their completed questionnaire to the researcher. Questionnaires were distributed over a two day period. The response rate from this distribution was 58% (98 questionnaires).

The researcher then went back to the College of Education, six weeks later, and distributed 85 questionnaires to classes of 15-25 students, in the Social Studies Department. None of these students were in the previous group. All four of the classes were allowed class time to complete the questionnaire, and questionnaires were given to the researcher the same day. These questionnaires were distributed over a three day period. The researcher received 83 completed questionnaires from this distribution (98%). The total number of completed questionnaires returned was 181 (78%).

The demographic characteristics of the sample are shown in Table 1. The respondents were mainly female and mostly identified as New Zealand European or Pakeha. The age of the participants ranged from 16-59 years, with the mean age being 25 years.

Table 1

*Demographic Statistics for the Sample*

Gender	Female	142 (78.5%)
	Male	39 (21.5%)
Ethnicity	Pakeha	132 (72.9%)
	Maori	15 (8.3%)
	Pacific Island	11 (6.1%)
	Asian	10 (5.5%)
	Other	13 (7.2%)
Age		mean = 25 years
	16-19	18 (9.9%)
	20-29	96 (53.0%)
	30-39	37 (13.3%)
	40-49	24 (13.3%)
	50-59	3 (1.7%)
	Missing	3 (1.7%)

*4.2 Measures**Measures of Criminal Attitudes and Associates (MCAA)*

The Measures of Criminal Attitudes and Associates (MCAA) (Mills, Kroner, & Forth, 2002) is a two part self-report measure. Part One measures association with criminal others, and Part Two measures attitudes related to criminal behaviour. Although criminal association is an important predictor of criminal behaviour, the focus of this study is criminal attitudes, so only Part Two of the MCAA was used (Appendix A). Part Two consists of 46 items with four scales. The scales are Violence (12 items, e.g. "It's not wrong to fight to save face"), Entitlement (12 items, e.g. "I should be treated like anyone else no matter what I've done"), Antisocial Intent (12 items, e.g. "I would run a scam if I could get away with it"), and Antisocial

Associates (10 items, e.g. "I know several people who have committed crimes"). The scales of Violence and Entitlement contain two subscales, with each content area being represented by a rationalisation item and a justification item. Rationalisation refers to making excuses for inappropriate behaviour (e.g. "Stealing to survive is understandable"), whereas justification is more about defending an inappropriate behaviour by claiming it to be appropriate (e.g. "There is nothing wrong with beating up a child molester") (Mills et al., 2002). Justification indicates a stronger antisocial attitude so is expected to be more strongly related to criminal behaviour (Mills, 2000).

The MCAA was developed and tested in Canada with incarcerated male offenders, who had committed a variety of offences. The MCAA has acceptable internal consistency and test-retest reliability ( $\alpha = .81$ ) (Mills et al., 2002). The MCAA also has convergent validity, correlating with the Criminal Sentiments Scale-Modified (CSS-M) and Pride In Delinquency Scale (PID) ( $\alpha = .76$  and  $\alpha = .66$  respectively), which both measure antisocial attitudes and attitudes towards offending. The MCAA also has discriminant validity, in that it does not correlate with several negative affect measures; including the State-Trait Anger Expression Inventory, the State-Trait Anxiety Inventory, and the Beck Depression Inventory (Mills et al., 2002). The MCAA has also been found to correlate more with criminal history than other attitude measures; particularly the Total Score, Antisocial Intent, and the Associates domains (Mills et al., 2002). The MCAA has also been found to have validity in predicting recidivism (Mills, Kroner, & Hemmati, 2004).

The MCAA was chosen for this study as it has shown good psychometric properties and higher correlations with criminal behaviour than any other current measure. This measure was designed and has been mainly used in Canada. As such it may not be appropriate for use in other cultures such as New Zealand, as attitudes can be very culture-specific (Andrews & Bonta, 2003). This study aims to find out the norms of a non-offending sample in New Zealand on the MCAA, and assess the appropriateness of this measure for use in New Zealand.

*Criminal Sentiments Scale- Modified (CSS-M)*

The Criminal Sentiments Scale-Modified (CSS-M) (Simourd, 1997) is a 41 item self-report measure with three scales; Attitudes toward the Law, Court, and Police (25 items, e.g. The law only helps a few people,” “You cannot get justice in court,” “The police are just as crooked as the people they arrest”), Tolerance for Law Violations (10 items, e.g. “Its OK to break the law, but don’t get caught”), and Identification with Criminal Others (6 items, e.g. “I have little in common with people who never break the law”) (Appendix B). Each item is scored on a three point scale, with agreement with an antisocial statement (e.g. “Laws are usually bad”) or disagreement with a prosocial statement (e.g. “It is our duty to obey all laws”) scoring two points; disagreement with an antisocial statement, or agreement with a prosocial statement scoring zero; and an undecided response scoring one point.

The CSS-M has reasonable internal consistency ( $\alpha = .75$ ) and has been used with a range of samples (Simourd & van de Van, 1999). However the predictive validity of the CSS-M has been mixed. Simourd and van de Van (1999) found the CSS-M to be significantly correlated with re-arrest and re-incarceration, but not predictive on its own. Simourd (1997) found the CSS-M to be only slightly correlated with offence-based criteria and concluded it was a poor predictor. This may be because it does not include any measure of behavioural intention. Intention to perform a behaviour is a stronger predictor of behaviour than general attitudes (Ajzen, 1988). However this may also have been because the offence based criteria were all historical variables, including total number of criminal convictions, number of different offence types, total number of institutional misconduct reports, and previous convictions. The predictive validity of the CSS-M with re-arrests is much better, but more testing is needed (Simourd & Van de Ven, 1999).

The CSS-M was chosen for this study as it is a commonly used measure of antisocial attitudes, with good psychometric properties, and reasonable correlation with criminal behaviour. This study will investigate whether the MCAA and the CSS-M are



measuring different constructs; and which one is more strongly related to antisocial behaviour.

*The Self-Report Early Delinquency Instrument (SRED)*

The Self-Report Early Delinquency Instrument (SRED) (Moffitt & Silva, 1988) is a self-report measure of criminal and norm violating behaviours that was developed for use with New Zealand youth. It was developed by Moffitt and Silva (1988) as a result of inadequacies in using official records of delinquency, with many crimes not detected by the justice system. The SRED has 58 items - 29 items related to illegal behaviours (e.g. "I have stolen a thing or money worth over \$40) and 29 items related to norm violation (e.g. "I have sworn loudly in a public place"). Each item has been given a seriousness weighting ranging from .63 to 1.89. The SRED has high test-retest reliability ( $\alpha = .85$ ), high internal consistency ( $\alpha = .90$ ) and adequate convergent validity, correlating with parent and teacher reports of delinquency (Moffitt & Silva, 1988).

For this study a shortened measure of 20 items was used (Appendix C), with a selection of 10 items from the illegal activity scale, and 10 items from the norm violation scale of the SRED. The items selected were chosen by the researcher to depict adult behaviours (e.g. breaking into a house, flat or vehicle), more than adolescent behaviours (e.g. drinking alcoholic drinks during school hours, or at lunchtime on a school day); or behaviours that are more antisocial for an adult to engage in. The items chosen were selected mostly from the high range seriousness weighting also (ranging from .83 to 1.89). This measure was chosen as it includes both illegal activities and norm violations, and was developed for use in New Zealand. The original SRED asked participants to indicate whether one had engaged in the behaviour once or twice, or three or more times. In the present study participants were asked to indicate if they had ever engaged in the behaviour, but were not asked to indicate the frequency.

### 4.3 Procedure

For this study, ethics approval was first obtained from the Massey University Human Ethics Committee at the Albany campus. The Head of School was contacted at the Auckland College of Education to get approval for accessing their students. After approval was gained, it was suggested that the author contact the Head of Department in the School of Professional Inquiry. The Head of Department liaised with individual lecturers, to gain approval to access their students during class time.

The researcher briefly introduced the research to classes of 10-25 people in classrooms at the Auckland College of Education, in the Professional Inquiry Department. Questionnaires were then passed around the room and students took one if they were willing to participate. An information sheet (Appendix D) was attached to the front of the questionnaire explaining the research, and participants understood that by returning the questionnaire, they were implying consent. In three of the eight classes approached, the lecturer of the class allowed time for the students to complete the questionnaire immediately. When completed, the students put the questionnaire in a box at the front of the room, which the researcher then collected. These students were also provided with the alternative of sending the completed questionnaire back to the researcher in the freepost envelope provided. In the five other class groups, participants were instructed to fill out the questionnaires in their own time, as soon as they could, and send them to the researcher in the freepost envelope provided. All participants were also provided with a second freepost envelope to send their contact details to the researcher, separate from the questionnaire; so that they could receive a summary of the results when the study was completed, if desired.

Due to insufficient numbers of completed questionnaires received, further questionnaires were distributed to a second group of students at ACE in the Social Studies Department, six weeks later. Again the Head of Department liaised with individual lecturers to find those willing to allow class time for their students to complete the questionnaire. Class sizes were again 10-25 people. All classes in this

group were allowed time during class to complete the questionnaire, and were asked to put completed questionnaires in a box at the front of the room for the researcher to collect. These participants were also provided with a postage paid envelope to request a summary of the results, if desired. All information given in the questionnaire was completely anonymous. Completion of the questionnaire took approximately 10-20 minutes.

## CHAPTER 5

### RESULTS

This study aimed to investigate the extent to which antisocial attitudes are present in a New Zealand non-offending sample. As this study did not test the attitudes of a New Zealand offending sample, direct comparisons cannot be made. However mean scores obtained with overseas offenders by other researchers are presented to show the differences. Analyses were conducted on the non-offending student sample's data to investigate how antisocial attitudes relate to antisocial behaviour. Because the scales of the MCAA and the CSS-M have previously been subjected to confirmatory factor analyses, the scales of each measure were used. Factor analyses were not conducted on the data from this sample. Data was analysed using SPSS® for Windows Rel. 12.0 (SPSS Inc., 2003).

#### *5.1 Data Screening*

A missing data analysis was conducted using SPSS® for Windows Rel. 12.0 (SPSS Inc., 2003), and cases containing over 5% of the data missing were deleted, as suggested by Tabachnick and Fidell (1989). This left 174 of the original 181 cases. Analyses were conducted both with and without the missing data and no significant differences were found. Seven univariate outliers were identified using a box plot, and were changed to scores one unit lower than the next most extreme score, as suggested by Tabachnick and Fidell (1989). Mahalanobis distance identified no multivariate outliers. The assumptions of linearity, and homoscedasticity were met, however all distributions of the total scale and subscale scores were found to be positively skewed. As suggested by Tabachnick and Fidell (1989), and Pallant (2001), transformations were calculated using SPSS ® for Windows Rel. 12.0 (SPSS Inc., 2003), to improve normality. The Law, Court, and Police scale of the CSS-M was transformed to a normal distribution, as indicated by a non-significant result on the Kolmogorov-Smirnov statistic, using square root transformation. All other scores

were unable to be transformed to a perfectly normal distribution, but the MCAA Total, Antisocial Intent, rationalisation items, CSS-M Total, Tolerance for Law Violation, and SRED scores were transformed using square root transformation, to more closely approximate normality. The Involvement with Criminal Others score was transformed to more closely approximate normality using Logarithm. The Entitlement, Antisocial Associates, and justification item scores approximated normality without the need for transformation.

## 5.2 Antisocial Attitudes

### *Reliability analyses*

The internal consistency of each of the scales was estimated using Cronbach's alpha (see Table 4). The internal consistency of the MCAA was acceptable ( $\alpha = .84$ ) (Nunnally & Bernstein, 1994) but lower than that found by Mills et al (2002) ( $\alpha = .90$ ). The internal consistency of each of the scales of the MCAA was lower in this study, but comparable to that found by Mills et al (2002). The Violence scale and the Entitlement scale show much lower internal consistency than the rest of the scales (Violence  $\alpha = .65$ , Entitlement  $\alpha = .58$ , Antisocial Intent  $\alpha = .78$ , Antisocial Associates  $\alpha = .75$ ).

The CSS-M showed high internal consistency ( $\alpha = .88$ ) which is comparable to that found in previous studies with offender groups (Carlyon, 2003; Simourd & Olver, 2002). As has been found in previous studies (Carlyon, 2003; Simourd & Olver, 2002) there was a large amount of variation in internal consistency among the subscales of the CSS-M. The LCP ( $\alpha = .89$ ), was comparable to other studies (Carlyon, 2003; Polaschek, Collie & Walkey, in press; Simourd & Olver, 2002) but the TLV ( $\alpha = .58$ ), and the ICO ( $\alpha = .22$ ), were low.

### *Correlation Analyses*

The MCAA and the CSS-M total scores, as well as each of the scales, were found to be significantly correlated. The results of the correlation analyses are presented in Table 2. The moderate correlation between the MCAA Total and the CSS-M Total ( $r = .55$ ) indicates that these two instruments are measuring similar constructs. The Tolerance of Law Violation scale of the CSS-M also correlates moderately with the Antisocial Intent scale of the MCAA ( $r = .53$ ), which would be expected as they both measure willingness to participate in crime. Each of the scales correlates quite highly with the Total score of its measure, which would be expected. The other correlations although significant are relatively low. The MCAA and the CSS-M measure similar constructs, but both total scores and scale scores were only moderately correlated, indicating they do measure some different elements of antisocial attitudes.

See Table 2 over the page ...

Table 2  
*Correlations between the Attitude Scales*

	MCAA	V	E	AI	AA	CSS-M	LCP	TLV
1. V	.583**							
2. E	.675**	.316**						
3. AI	.837**	.332**	.382**					
4. AA	.727**	.159*	.242**	.576**				
5. CSS-M	.554**	.367**	.400**	.464**	.344**			
6. LCP	.438**	.331**	.337**	.340**	.248**	.944**		
7. TLV	.548**	.289**	.387**	.528**	.329**	.693**	.467**	
8. ICO	.465**	.241**	.249**	.424**	.381**	.463**	.290**	.415**

*Note.* MCAA = Measures of Criminal Attitudes and Associates Total. V = Violence. E = Entitlement. AI = Antisocial Intent. AA = Antisocial Attitudes. CSS-M = Criminal Sentiments Scale-Modified Total. LCP = Law, Courts, Police. TLV = Tolerance for Law Violations. ICO = Involvement with Criminal Others.

\*Correlation is significant at the .05 level of probability

\*\*Correlation is significant at the .01 level of probability

### 5.3 Antisocial Behaviour

The 20 item shortened Self-Report Early Delinquency Instrument (SRED)(Moffitt & Silva, 1988) used in this study had good internal reliability ( $\alpha = .80$ ). This reliability is slightly lower than that of the full 58 item measure ( $\alpha = .90$ ) (Moffitt & Silva, 1988) but still acceptable. Nunally and Bernstein (1994) recommend measures have a reliability of at least .7 to be acceptable. A comparison of the items endorsed by the adolescents in the Moffitt and Silva (1988) study, with that of ACE students in the present study is presented in Table 3. The student sample in this study showed higher endorsement on some of the items, but were less likely to have engaged in violent acts, burglary, or vandalism; showing there are differences between this adult sample and Moffitt and Silva's adolescent sample.

The scores on the 20 item SRED of the ACE students in this sample, ranged from 0 to 15. The mean for the 20 item SRED ( $M = 4.1$   $SD = 3.4$ ) was fairly low, indicating that the sample has not engaged in large amounts of antisocial behaviour, as expected. However compared to the means obtained with adolescents on the 58 item SRED by Moffitt and Silva (1988), this could be considered quite high. Moffitt and Silva (1988) found a mean for the 58 item measure of 6.9 ( $SD = 8.6$ ) for boys and a mean of 3.4 ( $SD = 5.5$ ) for girls. In the student sample in the present study, the 20 item SRED produced a mean of 6.5 ( $SD = 3.8$ ) for males, and 3.4 ( $SD = 3.0$ ) for females, which is similar to the means found on the 58 item SRED by Moffitt and Silva (1988).

See Table 3 over the page ...



Table 3

*Frequency of Endorsement of Each of the Items on the SRED in This Study Compared With Those of Adolescents in the Primary Validation study (Moffitt & Silva, 1988).*

	<u>Present study</u>	<u>Moffitt &amp; Silva (1988)</u>
	% of sample that endorsed item	% of sample that endorsed item
1. Damaged something in a public place.	30	12.6
2. Started a fire where you should not burn anything.	20.9	13.1
3. Damaged a parked car.	9.0	3.2
4. Stolen a thing/money worth over \$40.	8.5	2.3
5. Broken into a house, flat or vehicle.	1.7	4.0
6. Stolen something from an open shop.	28.8	29.0
7. Smoked cannabis.	61.4	2.0
8. Used illegal drugs other than cannabis.	30.5	0.6
9. Had a fight in a street or public place.	14.0	16.2
10. Used a weapon in a fight.	0.6	5.1
11. Purposely littered a street or footpath by smashing bottles/tipping rubbish bins.	12.4	11.8
12. Driven a car/motorbike on a public road without a license.	29.9	19.0
13. Trespassed.	41.5	71.3
14. Made rude phone calls.	9.0	11.0
15. Sworn loudly in a public place.	48.2	48.7
16. Painted or written graffiti in a public place.	15.3	28.2
17. Moved or damaged a traffic sign or road works equipment.	30.5	9.7
18. Let down tyres of car/truck/motorcycle.	4.0	15.1
19. Thrown objects at people or moving cars.	9.6	13.2
20. Been cruel to an animal so as to injure it.	3.0	3.4

#### 5.4 Antisocial Attitudes - Comparison with Other Studies

The descriptive statistics for the MCAA and the CSS-M and each of their scales are presented in Table 4. Table 5 compares the mean total scores of the MCAA and the CSS-M in this sample, with scores found with offenders in other studies. The mean scores on the MCAA ( $M = 11.4$ ,  $SD = 6.4$ ) were lower than those found in Canadian studies with offenders (Mills, Anderson, & Kroner, 2004; Mills, Kroner, & Forth, 2002; Mills, Kroner, & Hemmati, 2004), as predicted. Each of the scales of the MCAA also had lower mean scores (Violence  $M = 1.8$   $SD = 1.8$ , Entitlement  $M = 3.8$   $SD = 2.2$ , Antisocial Intent  $M = 2.8$   $SD = 2.6$ , Antisocial Associates  $M = 3.1$   $SD = 2.4$ ) than those found previously with Canadian offenders (Mills et al, 2002). The students' mean score on the CSS-M ( $M = 20.1$   $SD = 10.5$ ) was also lower than the mean scores found with offender samples (Carlyon, 2003; Polaschek, Collie, & Walkey, in press; Robertson, 1999; Simourd & Olver, 2002; Simourd & van de Ven, 1999).

Table 4  
*Descriptive Statistics for the MCAA and the CSS-M.*

Scale	# of items	Mean	SD	Alpha
MCAA	46	11.4	6.4	.84
V	12	1.8	1.8	.65
E	12	3.8	2.2	.58
AI	12	2.8	2.6	.78
AA	10	3.0	2.4	.75
CSS-M	41	20.1	10.5	.88
LCP	25	12.5	8.3	.89
TLV	10	4.9	3.0	.58
ICO	6	2.6	1.3	.22

*Note.* MCAA = MCAA Total. V = Violence. E = Entitlement. AI = Antisocial Intent. AA = Antisocial Associates. CSS-M = CSS-M Total. LCP = Law, Courts, and Police. TLV = Tolerance for Law Violations. ICO = Involvement with Criminal Others.

Table 5

*Comparison of the Mean Total Scores on the MCAA and the CSS-M Found in the Present Study, With Scores From Previous studies with Offenders*

Study	Sample	Mean	SD	N
<b><u>MCAA Total</u></b>				
Present Study	NZ Education students	11.4	6.44	181
Mills, Anderson, & Kroner (2004)	Canadian Sex Offenders	17.0	8.9	104
Mills, Kroner & Forth (2002)	Canadian Federal Incarcerates	14.0	7.9	341
Mills, Kroner & Hemmati (2004)	Canadian Federal Incarcerates	16.5	8.8	144
<b><u>CSS-M Total</u></b>				
Present Study	NZ Education Students	20.1	10.46	181
Carlyon (2003)	NZ Adolescent Offenders	49.4	13.9	80
Polaschek, Collie, & Walkey (in press)	NZ Adult Offenders	41.6	15.5	155
Robertson (1999)	Canadian Young Offenders	30.0	15.2	658
Simourd (1997)	Canadian Federal Incarcerates	27.1	14.8	121
Simourd & van de Ven (1999)	Canadian Federal Incarcerates	34.0	16.7	52

*Note.* MCAA = Measures of Criminal Attitudes and Associates. CSS-M = Criminal Sentiments Scale-Modified.

Table 6 compares the mean scale scores of both measures obtained in this study, with the mean scale scores found in other studies with offender groups. The mean scores on each of the scales of the CSS-M (LCP  $M = 12.5$   $SD = 8.3$ , TLV  $M = 4.9$   $SD = 3.0$ , ICO  $M = 2.6$   $SD = 1.3$ ) were also comparably lower than those found in offenders (Simourd & Olver, 2002; Simourd & van de Ven, 1999).

Table 6  
*Comparison of the Mean Subscale Scores on the MCAA and the CSS-M Found in the Present Study, With Scores Found in Previous Studies With Offenders*

Study	M (SD)				
	<b>MCAA</b>	<b>V</b>	<b>E</b>	<b>AI</b>	<b>AA</b>
Present Study		1.8 (1.8)	3.8 (2.2)	2.8 (2.6)	3.1(2.4)
Mills, Anderson, & Kroner(2004)		3.2 (2.9)	4.6 (2.6)	3.4 (3.3)	5.8 (3.1)
Mills, Kroner, & Forth (2002)		2.1 (2.4)	4.3 (2.3)	2.4 (2.8)	5.2 (2.9)
Mills, Kroner & Hemmati (2004)		3.2 (2.8)	4.6 (2.4)	3.1 (3.2)	5.5 (3.2)
	<b>CSS-M</b>	<b>LCP</b>	<b>TLV</b>	<b>ICO</b>	
Present study		12.5 (8.3)	4.9 (3.0)	2.6 (1.3)	
Carlyon (2003)		29.9 (9.2)	13.0 (3.9)	6.4 (2.6)	
Polaschek, Collie, & Walkey (in press)		25.9 (10.4)	10.2 (4.9)	5.5 (2.6)	
Robertson (1999)		16.4 (9.9)	8.4 (4.6)	5.2 (2.7)	
Simourd (1997)		18.0 (10.7)	6.5 (3.8)	2.5 (2.3)	
Simourd & van de Ven (1999)		20.9 (10.7)	8.3 (5.3)	4.8 (2.7)	

*Note.* MCAA = Measures of Criminal Attitudes and Associates. CSS-M = Criminal Sentiments Scale-Modified. V = Violence. E = Entitlement. AI = Antisocial Intent. AA = Associates. LCP = Law, Court, Police. TLV = Tolerance of Law Violations. ICO = Involvement with Criminal Others.

### *5.5 The Relationship between Antisocial Attitudes and Behaviour*

#### *Correlations between Antisocial Attitudes and Behaviour*

A Pearson's correlation was carried out to investigate the relationship between each of the antisocial attitude measures and antisocial behaviour. The results of these correlation analyses are presented in Table 7. Each of the total measure scores, as well as each of the scale scores significantly correlated with behaviour. Most of the correlations were quite low, except the MCAA Total score ( $r = .59$ ), the Antisocial

Intent scale ( $r = .57$ ), and the Antisocial Associates scale ( $r = .58$ ), which were moderately correlated with behaviour. This is similar to what has been found with a Canadian offender sample (Mills et al., 2002). A hierarchical multiple regression analysis was performed to further investigate the relationships between the MCAA and the SRED. As the correlations between the CSS-M and the SRED were fairly low, regression analyses were not performed with the CSS-M.

Table 7  
*Correlations between the Attitude Measures and Antisocial Behaviour*

(Attitudes)	SRED (Behaviour)
MCAA	.587**
V	.171*
E	.189*
AI	.570**
AA	.582**
CSS-M	.282**
LCP	.212**
TLV	.286**
ICO	.268**

*Note.* MCAA = Measures of Criminal Attitudes and Associates Total. V= Violence. E = Entitlement. AI = Antisocial Intent. AA = Antisocial Attitudes. CSS-M = Criminal Sentiments Scale-Modified Total. LCP = Law, Courts, Police. TLV = Tolerance for Law Violations. ICO = Involvement with Criminal Others.

\*Correlation is significant at the .05 level of probability. \*\*Correlation is significant at the .01 level of probability

#### *Hierarchical Multiple Regression*

Hierarchical multiple regression analyses were performed, with the addition of age and gender, to investigate whether antisocial attitudes could predict antisocial

behaviour. The scales of the MCAA were used, because only the MCAA had a moderately high correlation with the SRED. The results of the hierarchical regression analyses are presented in Table 8 (Also see Appendix E).

Table 8  
*Summary of Hierarchical Regression Analysis for Variables Predicting Scores on the SRED (N = 181)*

Variable	B	SE B	$\beta$
Step 1			
Gender	-.28	.08	.35**
Age	-.87	.17	.25**
Step 2			
Gender	-.37	.15	-.15*
Age	-.14	.07	-.13*
Violence	-.02	.04	-.03
Entitlement	-.02	.03	-.03
Antisocial Intent	.14	.03	.34**
Antisocial Associates	.15	.03	.33**

Note.  $R^2 = .18$  for Step 1;  $\Delta R^2 = .28$  for Step 2 ( $p < .01$ ).

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

After the first variables, age and gender, were entered into the equation, the model explained 18% of the variance. After the second set of variables, the scales of the MCAA – square root of Violence, Entitlement, square root of Antisocial Intent, and Antisocial Associates, were entered into the equation, the overall model explained 45% of the total variance. Antisocial attitudes as measured by the scales of the MCAA were able to significantly explain an additional 27.5% of the variance in antisocial behaviour, after age and gender were controlled for.

Antisocial Associates and Antisocial Intent made the most significant contribution to explaining the variance ( $\beta = .33$ ,  $\beta = .34$ ). Gender and age also made a significant contribution ( $\beta = -.15$ ,  $\beta = -.13$ ). Violence and Entitlement failed to explain a significant proportion in the variance in behaviour ( $\beta = -.03$ ,  $\beta = -.03$ ).

These results support previous research showing the Antisocial Attitudes and Antisocial Associates scales to be useful in explaining criminal behaviour (Mills, 2000; Mills, Kroner, & Forth, 2002).

### *Justification and Rationalisation*

The relationship between the number of justification items endorsed on the MCAA and the SRED was statistically significant, but the correlation was low ( $r = .21$ ). Results from these correlation analyses are presented in Table 9. Although justification and rationalisation items on the MCAA were moderately and significantly correlated, rationalisation items did not significantly correlate with the SRED ( $r = .13$ ). These results support the hypothesis that justification items are more strongly related to antisocial behaviour than rationalisation items.

Table 9  
*Correlations between Justification and Rationalisation Items on the MCAA, and the SRED.*

	SRED	Justification
Justification	.206**	
Rationalisation	.131	.602**

*Note.* SRED = Self Report Early Delinquency Instrument

\*\* Correlation is significant at the .01 level of probability.

## CHAPTER 6

### DISCUSSION

This study aimed to investigate the extent of antisocial attitudes present in a non-offending group, and the relationship of these attitudes to antisocial behaviour. Each of the hypotheses made will be evaluated, and the findings of the present study will be discussed in relation to previous literature. The implications for assessment and treatment in New Zealand are then explored. The limitations of the present study are also discussed, as well as future research directions.

#### *6.1 The Presence of Antisocial Attitudes*

While the levels of antisocial attitudes found in the students of the present study were lower than those found with offender samples in Canada (Mills, Kroner & Forth, 2002; Robertson, 1999; Simourd, 1997; Simourd & van de Ven, 1999); the students' scores in the present study were not as low as may have been expected. This may indicate that antisocial attitudes are present at higher levels in the New Zealand population as a whole. Alternatively, the higher scores may indicate that the MCAA and the CSS-M do not measure attitudes that will help to differentiate between offender and non-offender groups in New Zealand. Instead of measuring attitudes that relate to criminal behaviour, these Canadian developed measures may be measuring attitudes present in the New Zealand general population, and therefore may not be appropriate for offender assessment in New Zealand. However recent use of the CSS-M with New Zealand offender samples indicates that New Zealand offenders have scores much higher than Canadian offenders (Carlyon, 2003; Polaschek, Collie, & Walkey, in press).

Polaschek, Collie, and Walkey (in press) found that New Zealand adult male offenders had both total and scale scores on the CSS-M that were one or two standard deviations higher than those found in Canadian federal incarcerates.



Carlyon (2003) found scores on the CSS-M obtained with New Zealand adolescent offenders to be higher than those found with offenders in Canada. Carlyon (2003) also found high CSS-M scores in a non-offending New Zealand adolescent group, giving support to the idea that the particular attitudes measured by the CSS-M are present at greater levels in the New Zealand population than the Canadian samples the measures have been tested on. The students' scores on the CSS-M in the present study are much lower than those found in New Zealand offender samples (Carlyon, 2003; Polaschek, Collie, & Walkey, in press), suggesting that the CSS-M may be useful for differentiating offenders and non-offenders.

As the MCAA has not been used with a New Zealand offender group, it is not possible to draw conclusions about its appropriateness for offender assessment in New Zealand. It appears that the New Zealand non-offender group in the present study is similar to the Canadian offender groups in antisocial attitudes represented by the MCAA (Mills, Anderson, & Kroner, 2004; Mills, Kroner, & Forth, 2002). The two groups are most similar in their scores for the Entitlement and Antisocial Intent scales. This suggests that New Zealand as a whole may have greater attitudes of entitlement and a greater acceptance of committing criminal acts. However these results reflect only a small sub sample of New Zealand and may have been affected by the gender, age, and ethnicity of the participants.

It must also be noted that the students in the present study were found to have quite high scores on the SRED, compared to the adolescent sample this measure was previously tested on (Moffitt & Silva, 1988). As a shortened measure of the SRED was used in this study, the high scores may be due to the choice of items selected from the original scale, which may have been widely engaged practices. Alternatively the high scores may indicate that the sample in the present study is particularly antisocial; which may explain why their scores seemed so similar to Canadian offenders. It may also be that as adult participants, the student sample had engaged in more antisocial behaviours than the adolescent sample, because they had lived longer, and therefore had more time to engage in the antisocial behaviour.

Future research should measure antisocial attitudes in other New Zealand non-offending samples, as well as antisocial behaviour, to clarify these issues.

### *6.2 The Relationship between the MCAA and the CSS-M*

The correlation between the MCAA and the CSS-M total scores was quite high, indicating that the two measures are assessing similar constructs. However the scales of each of the measures were only moderately correlated with each other, suggesting there are some differences in the antisocial attitudes assessed.

The only scales of the two measures that measured highly similar constructs were the Antisocial Intent scale of the MCAA, and the Tolerance of Law Violations scale of the CSS-M. This can be seen also in the similarity of the items. It is not surprising that these scales show such similarity, as they both measure acceptance of criminal behaviour, and views about the wrongfulness of behaviour. It was also found in the present study that Antisocial Intent and Antisocial Associates were quite highly correlated. This is consistent with what has been found in previous research (Mills, Kroner, & Forth, 2002; Simourd, 1997).

Because the scales of each of the measures were not highly correlated with each other, it seems the MCAA and the CSS-M are measuring sufficiently different constructs.

### *6.3 The Relationship between Antisocial Attitudes and Antisocial Behaviour*

Antisocial attitudes as measured by the MCAA and the CSS-M were found to be significantly related to antisocial behaviour. However, only the antisocial attitudes measured by the MCAA scales Antisocial Intent and Antisocial Associates, were able to significantly explain antisocial behaviour. Mills, Kroner, and Hemmati (2004) also found the MCAA Total score, and the Antisocial Intent and Antisocial Associates scales to help predict recidivism in Canadian federal incarcerates. This is consistent

with meta-analyses that have found antisocial associates to be one of the biggest predictors of criminal behaviour (Gendreau, Little, & Goggin, 1996). This is also consistent with the theory of Ajzen (1988) that suggests that intention is a better predictor of behaviour than attitudes in general.

The CSS-M and its Law, Court, and Police; Tolerance for Law Violation; and Involvement with Criminal Others scales were unable to explain antisocial behaviour. Simourd and van de Ven (1999) found that the CSS-M was significantly correlated with incarcerations and re-arrests but could not predict recidivism independently. However the CSS-M could predict recidivism when used with the Pride in Delinquency Scale (PID) (Simourd & van de Ven, 1999). The PID is a measure that assesses intent to perform various crimes, by assessing pride or shame in performing each act. This suggests that the CSS-M is an incomplete measure of antisocial attitudes, as it does not measure intent adequately. This is an important omission as intent is believed to be one of the best predictors of behaviour (Ajzen, 1988).

The results obtained in this study with New Zealand students, are consistent with previous research on the MCAA and the CSS-M. The MCAA has been found to correlate with criminal history in Canadian federal incarcerates (Mills, 2000; Mills, Anderson, & Kroner, 2004; Mills, Kroner, & Forth, 2002). Mills (2000) also found that the Antisocial Intent and Antisocial Associates scales correlated with criminal history more strongly than any of the other scales of the MCAA or the CSS-M. Mills (2000) suggests that the Antisocial Associates scale may be so effective in explaining criminal behaviour because it accesses antisocial attitudes as well as association with criminal others.

The Violence and Entitlement scales were not able to explain antisocial behaviour. This is consistent with what has been found with Canadian offender samples (Mills, 2000; Mills, Kroner, & Forth, 2002). This suggests that these may not be the antisocial attitudes that lead to offending. Therefore these attitudes may not be useful targets for rehabilitation or for assessment of risk. However, while these scales may

not explain general criminal behaviour, they may have utility in explaining specific criminal behaviours, such as violence and sexual offending. Mills, Anderson, and Kroner (2004) found the Entitlement scale to be more strongly related to offending in sex offenders compared to non-sex offenders. In the present study, the reliability of the Violence and Entitlement scales were lower than acceptable (Nunnally & Bernstein, 1994) and this may have affected their predictive validity.

The present study adds to previous research by providing preliminary evidence that antisocial attitudes can be a predictor of antisocial behaviour, not just criminal behaviour. The findings also suggest that antisocial attitudes may be able to predict antisocial behaviour in a non-criminal sample, not just in offender groups. This is consistent with research by Liao, Barigga, and Gibbs (1998) which found that cognitive distortions had a significant relationship with antisocial behaviour in both delinquent and non-delinquent adolescents.

The MCAA may be useful for use with various non-offending groups in New Zealand. For example, the MCAA may have utility in testing antisocial attitudes in police recruits, or other occupations where it is important to have individuals who are low in antisocial attributes.

It is important to note that age and gender made a significant contribution to explaining the variance in antisocial behaviour. The results from the regression analyses suggest that the older the participant, the less antisocial behaviour they are likely to have engaged in. Also males were more likely to have engaged in antisocial behaviour than females. The influence that age and gender have on antisocial attitudes and antisocial behaviour should be investigated in future research with both offenders and non-offenders. Ethnicity may also have an influence on antisocial attitudes and should also be investigated in future research. As previously noted, attitudes can be culture-specific (Andrews & Bonta, 2003). We also have a particular responsibility in New Zealand to honour the Treaty of Waitangi, and this includes ensuring assessment and treatment is appropriate for Maori (Code of Ethics Review

Group, 2002). Future research should investigate the appropriateness of the MCAA for use with New Zealand Maori.

#### *6.4 Justification and Rationalisation*

The MCAA scales of Violence and Entitlement contained two subscales, measuring justification and rationalisation. Rationalisation refers to excusing an inappropriate behaviour by making an excuse for it; while justification involves presenting an inappropriate behaviour as acceptable (Mills, Kroner, & Forth, 2002). The use of justification indicates a stronger antisocial attitude. In this study, students endorsed more rationalisation statements than justification statements, as expected. This is consistent with Mills' (2000) findings that Canadian offenders endorsed more rationalisation than justification items. Mills (2000) also found that offenders higher on psychopathy endorsed more rationalisation and justification items than offenders low in psychopathy. These results are consistent with theories that suggest neutralizations are related to criminal behaviour (Sykes & Matza, 1957).

In the present study, student's justification scores significantly correlated with antisocial behaviour as measured by the SRED, although the correlation was moderately low. However rationalisation statements did not significantly correlate with antisocial behaviour. These findings give some support to the assertion by Mills, Kroner, and Forth (2002), that justification indicates a stronger antisocial attitude. However these results are in contrast to those found by Mills et al. (2002) who found that justification items and rationalisation items had an equal relationship with criminal history. Mills (2000) also found that in predicting convictions and incarcerations, only the justification items entered the equation, not rationalisations. These findings indicate that justification may be a more useful predictor of antisocial and criminal behaviour than rationalisation.

### *6.5 Appropriateness of the Antisocial Attitude Measures for New Zealand*

The high scores on the CSS-M and the MCAA found in New Zealand samples do suggest that some items may be redundant for assessing risk for offending. In the present study there were items that were endorsed almost unanimously, indicating that these items may not measure something that is considered antisocial in the present New Zealand society. As the measures were developed and used mainly in Canada, some of the language used may also mean that the items are interpreted differently by New Zealand individuals. In the present study there were also items that were labeled confusing and ambiguous, in feedback received by the researcher; as well as items that were consistently unanswered.

The CSS-M had less unanswered items than the MCAA, which may be related to the fact that the CSS-M has an undecided option; while the MCAA asks for only agreement or disagreement. Measures that force a choice may be more useful in predicting behaviour. Items unanswered most in the MCAA were “I always feel welcomed around criminal friends”, “It’s wrong for a lack of money to stop you from getting things”, and “Child molesters get what they have coming.” The researcher received feedback that these items were unclear about what was meant. Other items that appeared to be ambiguous in the MCAA were, “A lack of money should not stop you from getting what you want”, and “A person should decide what they deserve out of life.”

Other items in the MCCA were worded in a way that included a double negative which proved confusing – “It’s not wrong to hit someone who puts you down”, and “It’s not wrong to fight to save face.” The item “I would not steal, and I would hold it against anyone who does” appeared to be two different statements, which often produced different answers. Participants agreed that they would not steal, but disagreed that they would hold it against anyone. The CSS-M seemed to have no real problems with ambiguity.



There was also some concern that “crime” and “criminal” were not defined in the MCAA. Participants were unsure if they should include what they viewed as less serious crimes, such as traffic infringements, in the definition of ‘crime’; for example in the statement “I have committed a crime with friends.” Participants were also uncertain about what sorts of crimes, and how much involvement made an individual a ‘criminal.’ Different interpretations of these terms may have produced different representations of antisocial attitudes.

As Nettler (1984) suggests, items may have different meanings to different people and this can affect the results. It is suspected that crimes, such as minor traffic infringements, were included as crimes by some of the participants, and not included by others. It is unknown whether offenders in the overseas studies included these types of acts in their definitions of crime. It is hypothesised that the offenders in overseas studies did not include minor crimes in their definitions, and the inclusion of these crimes in the definitions used by the New Zealand student sample, may mean the New Zealand students appear more antisocial.

Items that were frequently endorsed (endorsed by over 40% of the participants) on the MCAA were items that were about entitlement and being treated fairly; and items that indicated having criminal friends, and being non-judgmental about those who engage in crime. These included agreement with the statements - “Stealing to survive is understandable”, “I should be allowed to decide what is right and wrong”, “I know several people who have committed crimes”, “I would not steal and I would hold it against anyone who does”, “I should be treated like anyone else no matter what I have done”, “I could easily tell a convincing lie”, “A person should decide what they deserve out of life”, and “For a good reason I would commit a crime”; as well as disagreement with the statements - “None of my friends have committed crimes”, and “None of my friends have ever wanted to commit a crime.” It should be noted however that the non-judgmental stance of the participants did not extend to child molesters, as seen by agreement with the statement “Child molesters get what they have coming” by 58% of the participants. As this item is unclear, it is not known

whether participants were expressing agreement with violence or bad will towards child molesters (as the questionnaire intended), or agreement with the legal punishment the offender receives.

Items that in Canada are interpreted as attitudes of 'entitlement,' in New Zealand appear to be reframed as attitudes of 'fairness', and are not seen as negative. Perhaps these items should be deleted in a New Zealand version of the MCAA, or replaced with items indicating unfairness. New Zealand offenders may be found to agree with items of unfairness, and disagree with items of fairness. Future research should investigate this concept more in a New Zealand sample.

Items that were frequently endorsed on the CSS-M (by more than 30% of the participants) were mostly statements that expressed dissatisfaction with the law and the justice system. This included agreement with the statement – "The law only helps a few people", and disagreement with the statements - "There is never a good reason to break the law", and "Law and justice are the same." This suggests that New Zealanders as a whole may have dissatisfaction with the law and the justice system. This may be something that needs to be addressed.

The participants also seemed to be very unsure about their attitudes towards the justice system, probably due to a lack of involvement with it. Participants mostly indicated that they were undecided for the statements – "Almost any jury can be fixed", "On the whole lawyers are honest", "Fake witnesses are often produced by the Crown", "On the whole, judges are honest and kind", "Court decisions are fair", "Money can 'fix' court decisions", and "A judge is a good person."

Participants also frequently agreed with the statement – "People commit crimes when they think they won't get caught" which seems to be a less valuable item, as it does not relate to what the individual evaluating it would actually do; but is more an observation of others who do engage in crime. Participants in this study also frequently disagreed with the statement – "No one who breaks the law can be my



friend”, which again indicates the accepting and non-judgmental nature of participants.

There seem to be some problems with the transferability of the MCAA and the CSS-M to a New Zealand group. This is not surprising as attitudes can be culturally specific and also change over time (Andrews & Bonta, 2003). However, the MCAA does appear to be useful in explaining antisocial behaviour, but may need to be modified for use in New Zealand. Some items may need to be deleted or reworded. Some of the concepts used in the MCAA also need to be defined, specifically ‘crime’ and ‘criminal.’ Perhaps a new attitude measure modeled on the MCAA would be more accurate in predicting antisocial behaviour in a New Zealand group. Future research should design and test such a measure.

#### *6.6 Implications and Future Directions*

The present research suggests that the Measures of Criminal Attitudes and Associates (MCAA) (Mills, Kroner, & Forth, 2002) may be useful for predicting antisocial behaviour in New Zealand. However, as this study did not use the measures with any New Zealand offenders, no inferences can be made about the MCAA’s utility with a New Zealand offender group. Future research should use the MCAA with a New Zealand offending and non-offending sample, to assess the ability of the MCAA to differentiate between the two groups; and also predict the criminal behaviour of offenders. There were also some issues about the ambiguity of items in the MCAA and the issue of unanswered items. It may be that these problems existed mainly because the measure was used with a non-offending group that has had little experience with offending. Again, the use of the MCAA with a New Zealand offender group will help to clarify this issue.

Despite problems with the language used in the MCAA, the present research suggests that the MCAA is measuring some of the specific attitudes that relate to antisocial behaviour. Antisocial attitudes specific to antisocial behaviour seem to be attitudes

indicating antisocial intent, and favourable attitudes towards antisocial associates. Attitudes of violence, entitlement, and negative attitudes towards the law, court, and police did not appear to explain antisocial behaviour in this student sample. If future research confirms the ability of the Antisocial Intent and Antisocial Associates scales of the MCAA to significantly predict criminal behaviour, then these scales may be useful for the New Zealand Department of Corrections as a risk assessment instrument and measure of change.

The Criminal Sentiments Scale-Modified (CSS-M) (Simourd, 1997) had fewer problems with ambiguity and unanswered items than the MCAA, but could not explain antisocial behaviour in the student sample. Again this may be due to the sample being a non-offending group. One of the limitations of this study is that the MCAA and the CSS-M were designed for use with offending populations; and so some of the items may not be appropriate for non-offending groups. Polaschek, Collie, and Walkey (in press) found that the CSS-M had a small correlation with risk of re-offending in adult male New Zealand offenders, but did not investigate its relationship with actual criminal or antisocial behaviour. Future research should investigate the CSS-M's utility in predicting antisocial behaviour in a New Zealand adult offender group.

The undecided option on the CSS-M may make it less valid for predicting antisocial behaviour than the MCAA. When people are forced to make a choice between whether something is right or wrong, as in the MCAA, we can be more certain about their attitude, and can therefore better explain behaviour. Also, forcing participants to either agree or disagree can help to reduce social desirability bias (Nederhof, 1985).

Walters and Geyer (2004) suggest that in addition to differences between offenders and non-offenders, there may be differences in attitudes between offender groups. They found a difference in criminal thinking, using the Psychological Inventory of Criminal Thinking Styles, between white collar and non-white collar offenders. Future research could use the MCAA and the CSS-M to investigate whether there are

differences in antisocial attitudes between offenders who engage in certain types of crimes, for example, sex offenders and non sex-offenders.

Mills, Anderson, and Kroner (2004) found that the MCAA had utility in explaining criminal behaviour in sex offenders just as well as non-sex offenders. They also found that there were significant differences in the antisocial attitudes of the two groups; however these differences were explained by age and exposure to a criminal environment. Mills et al. (2004) did find however that there was a much stronger relationship between the Entitlement scale and prior incarcerations for sex offenders, compared to non-sex offenders. These differences suggest it would be useful to further investigate the differences in antisocial attitudes within the offender group.

The use of instruments that measure factors other than antisocial attitudes may also be useful in future research. Although personality has shown little relationship with criminal behaviour (Gendreau, Little & Goggin, 1996) and may not be a valuable focus for treatment (Simourd, & Olver, 2002); personality may add to the explanation of criminal behaviour as a moderating factor; and help to inform treatment by addressing responsivity issues. For example, antisocial attitudes may differ between individuals high and low in Psychoticism. The Criminal Attribution Inventory (CRAI) (Kroner, Mills, Yessine, & Hemmati, 2004) may also add to antisocial attitudes research by measuring attribution of blame. As neutralizations have been shown to relate to antisocial behaviour (Powell, & Rosèn, 1999; Powell, Rosèn, & Huff, 1997; Sutton, Reeves, & Keogh, 2000), the CRAI may be useful in adding to the amount of variance in antisocial behaviour that can be explained.

This study is different in that it measured antisocial attitudes in a non-offending group. The ability of the MCAA to explain antisocial behaviour in this sample, suggests that it may be a useful measure for the purpose of selecting suitable applicants for occupations such as law enforcement and teaching. Also items that were endorsed frequently by the participants in this study suggest that New

Zealanders attitudes towards the law and the police are negative. For law enforcement to be effective, these attitudes may need to be addressed.

The present study also indicated that non-offending individuals can have associations with criminals, and are accepting of criminal others. These findings can help to explain the research on antisocial associates and their effects on behaviour. Research investigating the factors that prevent individuals with criminal associates from engaging in criminal behaviour may be useful. Research could also investigate the potential for law abiding friends to influence criminal associates to be law abiding.

#### *6.7 Limitations of the Current Study*

The present study was carried out on a relatively small sample of education students, and as such the ability to generalize the results is fairly limited. The sample was not chosen randomly and therefore may show some selection bias. Also the sample mainly consists of Pakeha females in their early twenties, which is not representative of New Zealand as a whole (Statistics New Zealand, 2001), and is certainly not representative of the New Zealand offender population (Department of Corrections, 2004). This limits the comparisons that can be made between this student sample and offender samples. The sample used in this study may also be different to other non-offender samples, including non-student groups; as well as students studying different subject areas. Also the sample in the present study was taken only from Auckland, and the attitudes of people in Auckland may be very different to other parts of New Zealand.

The measurement of antisocial attitudes by the MCAA and the CSS-M may have been affected by the age, gender, and ethnicity of the participants. Regression analyses showed that age and gender made a significant contribution to explaining the variance in antisocial behaviour. However as the sample was small, the differences that exist in antisocial attitudes at different ages, and in males and females could not be directly examined. Future research should investigate the differences in antisocial

attitudes and the way these relate to antisocial behaviour by age, gender, and ethnicity.

Although the group used in the present study was assumed to be a non-offending group, it must be noted that there is no certainty about what criminal behaviour individuals in the student group had engaged in. As Nettler (1984) suggests, antisocial behaviour occurs along a continuum, with some individuals engaging in many crimes, and others engaging in few crimes. Although this study describes the students as non-offenders, the only assumption that can be made about the student group in the present study is that they were not currently serving a sentence for criminal behaviour.

The present study did not contain any measure of socially desirable responding, which means that the results may be affected by social desirability bias. If the scores on the MCAA and the CSS-M are related to socially desirable responding, then the measures may be less useful for predicting antisocial behaviour (Kroner, Mills, Yessine, & Hemmati, 2004). However, in designing the MCAA, Mills (2000) checked that none of the items correlated highly with the Balanced Inventory of Desirable Responding (BIDR). Carlyon (2003) also found that in New Zealand adolescent offender and non-offender samples, there was little socially desirable responding on the CSS-M, as measured by the BIDR. This finding suggests that socially desirable responding may not have had a large effect on the present study's results.

Nederhof (1985) suggests that socially desirable responding can be substantially reduced by self-administration of the questionnaire, especially when the researcher is not present. In the present study participants did self-administer the questionnaire, and the researcher was not present while they were completing the questionnaire. The participants were also assured complete anonymity and confidentiality. These measures should have kept socially desirable responding to a minimum. Future

research however, should include measures of socially desirable responding, such as the BIDR, to be certain that social desirability is not affecting the results.

The present research only used one method of measurement – self-report. When measuring antisocial behaviour particularly, other sources of information should be used (Hollin, 2001). However previous research has found that self-reported criminal behaviour is correlated with official records, giving it reasonable validity (Babinski, Hartsough, & Lambert, 2001; Joliffe, Farrington, Hawkins, Catalano, Hill & Kosterman, 2003; Maxfield, Weiler, & Widom, 2000). However, because the SRED asked about behaviour engaged in across the lifespan, the antisocial behaviour variable may have been affected by memory bias. Joliffe et al. (2003) found that self reporting of retrospective criminal behaviour (all past behaviour) does not correlate well with prospective reports taken at the time. Future research should use multiple methods of measuring antisocial behaviour, and measure only behaviour in a recent time frame (for example, the past year).

Some caution should be taken in interpreting the regression analyses, as the distributions of the variables were not completely normal. However positive skew is expected in this kind of research. One would expect that there would be few participants that show high levels of antisocial attitudes. It must also be noted that the relationship found in this study between antisocial attitudes and antisocial behaviour is not causal. The measure of antisocial behaviour was historical and so inferences cannot be made about whether attitudes predicted behaviour. It may be that behaviour predicts attitudes. However Andrews and Kandel (1979) have found support for the idea that attitudes are a better predictor of behaviour, than behaviour is a predictor of attitudes. Future research should measure attitudes and measure antisocial behaviour that occurs in the following year.

### 6.8 Summary and Conclusion

The present study found that antisocial attitudes, as measured by the Measures of Criminal Attitudes and Associates (MCAA) and the Criminal Sentiments Scale-Modified (CSS-M) are present in a normative sample and that the presence of these attitudes is lower than those found in Canadian offenders. It was also demonstrated that antisocial attitudes, as measured by the MCAA could significantly explain antisocial behaviour in a non-offending sample. Antisocial intent and antisocial associates were shown to best relate to antisocial behaviour in this sample. It is concluded that despite some issues with particular items, the MCAA may have utility in predicting criminal and antisocial behaviour in a New Zealand group. However more research with New Zealand offenders is needed. The MCAA may also be useful in testing non-offending individuals to ensure they are low in antisocial attributes for various occupations.



## REFERENCES

- Ajzen, I. (1988). *Attitudes, personality and behavior change*. Chicago: Dorsey.
- Allen, L.C., MacKenzie, D.L., & Hickman, L.J. (2001). The effectiveness of cognitive-behavioral treatment for adult offenders: A methodological, quality-based review. *International Journal of Offender Therapy and Comparative Criminology*, 45(4), 498-514.
- Allport, G.W. (1954). The historical background to modern social psychology. In Lindzey, G. (Ed.), *Handbook of social psychology, Volume I: Theory and method*. Reading, Massachusetts: Addison-Wesley.
- Andrews, D.A., & Bonta, J. (2003). *The Psychology of Criminal Conduct (Third edition)*. Cincinnati: Anderson Publishing.
- Andrews, K.H., & Kandel, D.B. (1979). Attitude and behavior: A specification of the contingent consistency hypothesis. *American Sociological Review*, 44, 298-310.
- Andrews, D.A., Zinger, I., Hoge, R.D., Bonta, J., Gendreau, P., & Cullen, F.T. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28(3), 369-404.
- Anstiss, B. (2003). Just how effective is correctional treatment at reducing re-offending? *New Zealand Journal of Psychology*, 32(2), 84-91.
- Babinski, L.M, Hartsough, C.S., & Lambert, N.M. (2001). A comparison of self-report of criminal involvement and official arrest records. *Aggressive Behavior*, 27, 44-54.



Bagozzi, R.P., & Burnkrant, R.E. (1979). Attitude organization and the attitude-behavior relationship. *Journal of Personality and Social Psychology*, 37 (6), 913-929.

Barriga, A.Q., & Gibbs, J.C. (1996). Measuring cognitive distortion in antisocial youth: Development and preliminary validation of the "How I Think" Questionnaire. *Aggressive Behavior*, 22, 333-343.

Carlyon, P. I. (2004). Empathy and criminal attitudes in adolescent male offenders and non-offenders. Unpublished master's thesis, Victoria University, Wellington, New Zealand.

Cloward, R.A. (1959). Illegitimate means, anomie, and deviant behaviour. *American Sociological Review*, 24(2), 164-176.

Code of Ethics Review Group (2002). *Code of Ethics for psychologists working in Aotearoa/New Zealand*.

Department of Corrections. (2004). Department of Corrections Annual Report. Retrieved November 9, 2004, from <http://corrections.govt.nz/public/pdf/annualreports/annual-report-2004.pdf>

Dowden, C., & Andrews, D.A. (2000). Effective correctional treatment and violent re-offending: A meta-analysis. *Canadian Journal of Criminology*, Oct, 449-467.

Egan, V., McMurrin, M., Richardson, C., & Blair, M. (2000). Criminal cognitions and personality: What does the PICTS really measure? *Criminal Behavior and Mental Health*, 10, 170-184.

Engels, R.C.M.E., Luijpers, E., Landsheer, J., & Meeus, W. (2004). A longitudinal study of relations between attitudes and delinquent behavior in adolescents. *Criminal Justice and Behavior*, 31(2), 244-260.

- Flett, R.A., Kazantzis, N., Long, N.R., MacDonald, C., & Millar, M. (2002). Traumatic events and physical health in a New Zealand community sample. *Journal of Traumatic Stress, 15*(4), 303-312.
- Furnham, A., & Thompson, J. (1991). Personality and self-reported delinquency. *Personality and Individual Differences, 12*(6), 585-593.
- Gendreau, P., Goggin, C.E., & Law, M.A. (1997). Predicting prison misconducts. *Criminal Justice and Behavior, 24*(4), 414-432.
- Gendreau, P., Grant, B.A., Leipziger, M., & Collins, C. (1979). Norms and recidivism rates for the MMPI and selected experimental scales on a Canadian delinquent sample. *Canadian Journal of Behavioural Science, 11*, 21-31.
- Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34*(4), 575-607.
- Glueck, S., & Glueck, E. (1950). *Unraveling juvenile delinquency*. Massachusetts: Harvard University Press.
- Hening, K.R., & Frueh, B.C. (1996). Cognitive-behavioral treatment of incarcerated offenders: An evaluation of the Vermont Department of Corrections Cognitive Self-Change Program. *Criminal Justice and Behavior, 23*(4), 523-541.
- Hirschi, T. (1969). *Causes of delinquency*. Los Angeles: University of California Press.
- Hoge, R.D., Andrews, D.A., & Leschied, A.W. (1994). Tests of three hypotheses regarding the predictors of delinquency. *Journal of Abnormal Child Psychology, 22*(5), 547-559.

Hollin, C.R. (2001). *Handbook of offender assessment and treatment*. Chichester: John Wiley & Sons.

Hubbard, D.J., & Pratt, T.C. (2002). A meta-analysis of the predictors of delinquency among girls. *Journal of Offender Rehabilitation, 34*(3), 1-13.

Hyman, H.H. (1949). Inconsistencies as a problem in attitude measurement. *Journal of Social Issues, 5*, 38-42.

Joliffe, D., Farrington, D.P., Hawkins, J.D., Catalano, R.F., Hill, K.G., & Kosterman, R. (2003). Predictive, concurrent, prospective and retrospective validity of self-reported delinquency. *Criminal Behavior and Mental Health, 13*, 179-197.

Kroner, D.G., Mills, J.F., Yessine, A.K., & Hemmati, T. (2004). The generalized instructional set of the Criminal Attribution Inventory (CRAI): Socially desirable responding and faking. *International Journal of Offender Therapy and Comparative Criminology, 48*(3), 360-372.

Lab, S.P., & Allen, R.B. (1984). Self-report and official measures: a further examination of the validity issue. *Journal of Criminal Justice, 12*, 445-455.

Levine, S.Z., & Jackson, C.J. (2004). Eysenck's theory of crime revisited: Factors or primary scales. *Legal and Criminological Psychology, 9*, 135-152.

Liau, A.K., Barriga, A.Q., & Gibbs, J.C. (1998). Relations between self-serving cognitive distortions and overt vs. covert antisocial behavior in adolescents. *Aggressive Behavior, 24*, 335-346.

Liska, A.E. (1974). Emergent issues in the attitude-behavior consistency controversy. *American Sociological Review, 39*, 261-272.

Luengo, M.A., Carillo de la Pena, M.T., Otero, J.M., & Romero, E. (1994). A short-term longitudinal study of impulsivity and antisocial behavior. *Journal of Personality and Social Psychology*, 66(3), 542-548.

Maxfield, M.G., Weiler, B.Z., & Widom, C.S. (2000). Comparing self-reports and official records of arrests. *Journal of Quantitative Criminology*, 16, 87-110.

McBroom, W.H., & Reed, F.W. (1992). Toward a reconceptualization of attitude-behavior consistency. *Social Psychology Quarterly*, 55(2), 205-216.

McGuire, J., & Hatcher, R. (2001). Offense-based problem solving: Preliminary evaluation of a cognitive skills program. *Criminal Justice and Behavior*, 28(5), 564-587.

Merton, R.K. (1957). *Social theory and social structure*. New York: The Free Press.

Mills, J.F. (2000). Criminal attitudes: Assessment and the relationship with psychopathy and response latencies (Doctoral dissertation, Carleton University, 2000). *Dissertation Abstracts International*, 61, 4418.

Mills, J.F., Anderson, D., & Kroner, D.G. (2004). The antisocial attitudes and associates of sex offenders. *Criminal Behaviour and Mental Health*, 14, 134-145.

Mills, J.F., Kroner, D.G., & Forth, A.E. (2002). Measures of Criminal Attitudes and Associates (MCAA). Development, factor structure, reliability and validity. *Assessment*, 9(3), 240-253.

Mills, J.F., Kroner, D.G., & Hemmati, T. (2004). The Measures of Criminal Attitudes and Associates (MCAA): The prediction of general and violent recidivism. *Criminal Justice and Behavior*, 31(6), 717-733.

Mills, J.F., Loza, W., & Kroner, D.G. (2003). Predictive validity despite social desirability: Evidence for the robustness of self-report among offenders. *Criminal Behavior and Mental Health, 13*, 140-150.

Moffitt, T.E., & Silva, P.A. (1988). Self-reported delinquency: Results from an instrument for New Zealand. *Australian and New Zealand Journal of Criminology, 21*, 227-240.

Mylonas, A.D., & Reckless, W.C. (1963). Prisoner's attitudes toward laws and legal institutions. *Journal of Criminal Law, Criminology and Police Science, 54*, 479-484.

Nederhof, A.J. (1985). Methods of coping with social desirability bias: a review. *European Journal of Social Psychology, 15*, 263-280.

Nettler, G. (1984). *Explaining Crime (Third edition)*. New York: McGraw-Hill Book Company.

New Zealand Police (2004). *New Zealand crime statistics 2003: A summary of recorded and resolved offence statistics*. Office of the Police Commissioner.

Retrieved June 15, 2004, from

<http://www.police.govt.nz/service/statistics/2003/calendar/stats-national-20031231.pdf>

Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric Theory (Third edition)*. New York: McGraw-Hill.

Pallant, J. (2001). *SPSS survival manual: A step by step guide to data analysis using SPSS*. NSW, Australia: Allen & Unwin.

Polaschek, D.L.L., Collie, R.M., & Walkey, F.H. (in press). Criminal attitudes to violence: Development and preliminary validation of a scale for male prisoners. *Aggressive Behavior*.

Polaschek, D.L.L., & Reynolds, N. (2000). Assessment and treatment: Violent offenders. In C.R. Hollin (Ed). *Handbook of offender assessment and treatment* (pp. 415-431). England:Wiley.

Powell, K.M, & Rosèn, L.A. (1999). Avoidance of responsibility in conduct disordered adolescents. *Personality and Individual Differences*, 27, 327-340.

Powell, K.M., Rosèn, L.A., & Huff, M.E. (1997). Disruptive behavior disorders and the avoidance of responsibility. *Personality and Individual Differences*, 23(4), 549-557.

Robertson, S. (1999). *Assessing procriminal sentiments in young offenders: A comprehensive examination of the psychometric properties of a battery of attitudinal scales*. Unpublished Masters Thesis. Carleton University, Ottawa, Ontario, Canada.

Romero, E., Luengo, M.A., & Sobral, J. (2001). Personality and antisocial behavior: Study of temperamental dimensions. *Personality and Individual Differences*, 31, 329-348.

Samenow, S.E. (2004). *Inside the criminal mind (Revised and updated edition)*. New York: Crown Publishers.

Schofield, J.W. (1975). Effect of norms, public disclosure, and need for approval on volunteering behavior consistent with attitudes. *Journal of personality and Social Psychology*, 31(6), 1126-1133.

Sechrist, G.B., & Stangor, C. (2001). Perceived consensus influences intergroup behavior and stereotype accessibility. *Journal of Personality and Social Psychology*, 80(4), 645-654.

Sherman, S.J., & Fazio, R.H. (1983). Parallels between attitudes and traits as predictors of behavior. *Journal of Personality*, 51(3), 308-345.

Simourd, D.J. (1997). The Criminal Sentiments Scale and Pride in Delinquency Scale. Psychometric properties and construct validity of two measures of criminal attitudes. *Criminal Justice and Behavior*, 24(1), 52-70.

Simourd, D.J., & Olver, M.E. (2002). The future of criminal attitudes research and practice. *Criminal Justice and Behavior*, 29(4), 427-446.

Simourd, D.J., & Van de Ven, J. (1999). Assessment of criminal attitudes: Criterion-related validity of the Criminal Sentiments Scale-Modified and Pride in Delinquency Scale. *Criminal Justice and Behavior*, 26(1), 90-106.

SPSS Inc. (2003). *SPSS® for Windows Rel. 12.0*. Chicago IL: Authors.

Smith, J.R., & Terry, D.J. (2003). Attitude-behavior consistency: the role of group norms, attitude accessibility and mode of behavioral decision-making. *European Journal of Social Psychology*, 33, 591-608.

Statistics New Zealand (2001). Ethnic Group (Total Responses) and Sex by Age Group, For the Census usually Resident Population Count, 2001. Retrieved November 11, 2004, from [http://www.stats.govt.nz/domino/external/pasfull/pasfull.nsf/0/4c2567ef00247c6acc256bf9000ef4b0/\\$FILE/Table%203a.xls](http://www.stats.govt.nz/domino/external/pasfull/pasfull.nsf/0/4c2567ef00247c6acc256bf9000ef4b0/$FILE/Table%203a.xls)

Sutherland, E.H., & Cressey, D.R. (1978). *Criminology (Tenth edition)*. Philadelphia: Lippincott.

Sutton, J., Reeves, M., & Keogh, E. (2000). Disruptive behavior, avoidance of responsibility and theory of mind. *British Journal of Developmental Psychology*, 18, 1-11.

Sykes, G.M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review*, 22, 664-670.

Tabachnick, B.G., & Fidell, L.S. (1989). *Using multivariate statistics (2nd edition)*. New York, NY: Harper Collins

Terry, D.J., & Hogg, M.A. (1996). Group norms and the attitude-behavior relationship: A role for group identification. *Personality and Social Psychology Bulletin*, 8, 776-793.

Walters, G.D. (1995). The Psychological Inventory of Criminal Thinking Styles: Part I: Reliability and preliminary validity. *Criminal Justice and Behavior*, 22(3), 307-325.

Walters, G.D. (1996). The Psychological Inventory of Criminal Thinking Styles: Part III: Predictive validity. *International Journal of Offender Therapy and Comparative Criminology*, 40(2), 105-112.

Walters, G.D. (2002). Changes in outcome expectancies and criminal thinking following a brief course of psychoeducation. *Personality and Individual Differences*, 35, 691-701.

Walters, G.D., & Geyer, M.D. (2004). Criminal thinking and identity in male white-collar offenders. *Criminal Justice and Behavior*, 31(3), 263-281.



Watt, B., Howells, K., & Delfabbro, P. (2004). Juvenile recidivism: Criminal propensity, social control and social learning theories. *Psychiatry, Psychology and Law, 11(1)*, 141-153.

White, J.L., Moffitt, T.E., Caspi, A., Bartusch, D.J., Needles, D.J., & Stouthamer-Loeber, M. (1994). *Journal of Abnormal Psychology, 103(2)*, 192-205.

White, T.W., & Walters, G.D. (1989). Lifestyle criminality and the psychology of disresponsibility. *International Journal of Offender Therapy and Comparative Criminology, 33(3)*, 257-263.

Wormith, J.S. (1984). Attitude and behavior change of correctional clientele: A three year follow-up. *Criminology, 22(4)*, 595-618.

Yochelson, S., & Samenow, S.E. (1976). *The criminal personality, Vol. 1: A profile for change*. New York: Jason Aronson.

**APPENDIX A**

**MEASURES OF CRIMINAL ATTITUDES AND ASSOCIATES  
(MCAA)**

### Research Questionnaire (Part 1)

Read each statement below. Decide whether you agree or disagree with the statement and circle the answer that you feel most represents your feeling about the statement. Answer as honestly and openly as you can. All information will remain confidential.

- |     |  |              |                 |
|-----|--|--------------|-----------------|
| 1.  | It's understandable to hit someone who insults you.                            | <b>AGREE</b> | <b>DISAGREE</b> |
| 2.  | Stealing to survive is understandable.   | <b>AGREE</b> | <b>DISAGREE</b> |
| 3.  | I am not likely to commit a crime in the future.                               | <b>AGREE</b> | <b>DISAGREE</b> |
| 4.  | I have a lot in common with people who break the law.                          | <b>AGREE</b> | <b>DISAGREE</b> |
| 5.  | There is nothing wrong with beating up a child molester.                       | <b>AGREE</b> | <b>DISAGREE</b> |
| 6.  | A person is right to take what is owed to them, even if they have to steal it. | <b>AGREE</b> | <b>DISAGREE</b> |
| 7.  | I would keep any amount of money I found.                                      | <b>AGREE</b> | <b>DISAGREE</b> |
| 8.  | None of my friends have committed crimes.                                      | <b>AGREE</b> | <b>DISAGREE</b> |
| 9.  | Sometimes you have to fight to keep your self-respect.                         | <b>AGREE</b> | <b>DISAGREE</b> |
| 10. | I should be allowed to decide what is right and wrong.                         | <b>AGREE</b> | <b>DISAGREE</b> |
| 11. | I could see myself lying to the police.  | <b>AGREE</b> | <b>DISAGREE</b> |
| 12. | I know several people who have committed crimes.                               | <b>AGREE</b> | <b>DISAGREE</b> |
| 13. | Someone who makes you very angry deserves to be hit.                           | <b>AGREE</b> | <b>DISAGREE</b> |
| 14. | Only I should decide what I deserve.   | <b>AGREE</b> | <b>DISAGREE</b> |
| 15. | In certain situations I would try to outrun the police.                        | <b>AGREE</b> | <b>DISAGREE</b> |

16.	I would not steal, and I would hold it against anyone who does.	<b>AGREE</b>	<b>DISAGREE</b>
17.	People who get beat up usually had it coming.	<b>AGREE</b>	<b>DISAGREE</b>
18.	I should be treated like anyone else no matter what I've done.	<b>AGREE</b>	<b>DISAGREE</b>
19.	I would be open to cheating certain people.	<b>AGREE</b>	<b>DISAGREE</b>
20.	I always feel welcomed around criminal friends.	<b>AGREE</b>	<b>DISAGREE</b>
21.	It's all right to fight someone if they stole from you.	<b>AGREE</b>	<b>DISAGREE</b>
22.	It's wrong for a lack of money to stop you from getting things.	<b>AGREE</b>	<b>DISAGREE</b>
23.	I could easily tell a convincing lie.	<b>AGREE</b>	<b>DISAGREE</b>
24.	Most of my friends don't have criminal records.	<b>AGREE</b>	<b>DISAGREE</b>
25.	It's not wrong to hit someone who puts you down.	<b>AGREE</b>	<b>DISAGREE</b>
26.	A hungry man has the right to steal.	<b>AGREE</b>	<b>DISAGREE</b>
27.	Rules will not stop me from doing what I want.	<b>AGREE</b>	<b>DISAGREE</b>
28.	I have friends who have been to jail.	<b>AGREE</b>	<b>DISAGREE</b>
29.	Child molesters get what they have coming.	<b>AGREE</b>	<b>DISAGREE</b>
30.	Taking what is owed to you is not really stealing.	<b>AGREE</b>	<b>DISAGREE</b>
31.	I would not enjoy getting away with something wrong.	<b>AGREE</b>	<b>DISAGREE</b>
32.	None of my friends have ever wanted to commit a crime.	<b>AGREE</b>	<b>DISAGREE</b>
33.	It's not wrong to fight to save face.	<b>AGREE</b>	<b>DISAGREE</b>
34.	Only I can decide what is right and wrong.	<b>AGREE</b>	<b>DISAGREE</b>
35.	I would run a scam if I could get away with it.	<b>AGREE</b>	<b>DISAGREE</b>

- |     |   |              |                 |
|-----|---|--------------|-----------------|
| 36. | I have committed a crime with friends.                                    | <b>AGREE</b> | <b>DISAGREE</b> |
| 37. | Someone who makes you really angry shouldn't complain if they get hit.    | <b>AGREE</b> | <b>DISAGREE</b> |
| 38. | A person should decide what they deserve out of life.                     | <b>AGREE</b> | <b>DISAGREE</b> |
| 39. | For a good reason, I would commit a crime.                                | <b>AGREE</b> | <b>DISAGREE</b> |
| 40. | I have friends who are well known to the police.                          | <b>AGREE</b> | <b>DISAGREE</b> |
| 41. | There is nothing wrong with beating up someone who asks for it.           | <b>AGREE</b> | <b>DISAGREE</b> |
| 42. | No matter what I've done, it's only right to treat me like everyone else. | <b>AGREE</b> | <b>DISAGREE</b> |
| 43. | I will not break the law.   | <b>AGREE</b> | <b>DISAGREE</b> |
| 44. | It is reasonable to fight someone who cheated you.                        | <b>AGREE</b> | <b>DISAGREE</b> |
| 45. | A lack of money should not stop you from getting what you want.           | <b>AGREE</b> | <b>DISAGREE</b> |
| 46. | I would be happy to fool the police.                                      | <b>AGREE</b> | <b>DISAGREE</b> |

**APPENDIX B**

**CRIMINAL SENTIMENTS SCALE-MODIFIED  
(CSS-M)**

### Research Questionnaire (Part 2)

Read each statement below. Decide whether you agree or disagree with each statement and circle the most appropriate answer. If you are undecided or unsure, then circle undecided. Answer as honestly as you can. All answers will remain confidential.

1. The law only helps a few people.     **AGREE**     **DISAGREE**     **UNDECIDED**
2. Nearly all our laws deserve respect.     **AGREE**     **DISAGREE**     **UNDECIDED**
3. It is our duty to obey all laws.     **AGREE**     **DISAGREE**     **UNDECIDED**
4. Laws are usually bad.     **AGREE**     **DISAGREE**     **UNDECIDED**
5. The law is rotten to the core.     **AGREE**     **DISAGREE**     **UNDECIDED**
6. Almost any jury can be fixed.     **AGREE**     **DISAGREE**     **UNDECIDED**
7. You cannot get justice in court.     **AGREE**     **DISAGREE**     **UNDECIDED**
8. On the whole, lawyers are honest.     **AGREE**     **DISAGREE**     **UNDECIDED**
9. Fake witnesses are often produced by the Crown.     **AGREE**     **DISAGREE**     **UNDECIDED**
10. On the whole, the police are honest.     **AGREE**     **DISAGREE**     **UNDECIDED**
11. A cop is a friend to people in need.     **AGREE**     **DISAGREE**     **UNDECIDED**
12. Life would be better with fewer cops.     **AGREE**     **DISAGREE**     **UNDECIDED**
13. The police should be paid more for their work.     **AGREE**     **DISAGREE**     **UNDECIDED**
14. The police are just as crooked as the people they arrest.     **AGREE**     **DISAGREE**     **UNDECIDED**
15. There is never a good reason to break the law.     **AGREE**     **DISAGREE**     **UNDECIDED**

16. The law doesn't help people.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
17. The law as a whole is good.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
18. Law and justice are the same.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
19. The law makes slaves of most people.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
20. On the whole, judges are honest and kind.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
21. Court decisions are fair.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
22. Money can "fix" court decisions.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
23. A judge is a good person.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
24. Our society needs more police.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
25. The police almost never help people.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
26. Sometimes a person like myself has to break the law in order to get ahead.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
27. Successful people break the law to get ahead.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
28. I have the same ideas as people who break the law.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
29. You shouldn't break the law to get ahead in life.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
30. I prefer to be with people who obey rather than break the law.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
31. It's OK to break the law, but don't get caught.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
32. People like me must break the law to get ahead.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>
33. People commit crimes when they think they won't get caught.	<b>AGREE</b>	<b>DISAGREE</b>	<b>UNDECIDED</b>



34. I'm more like a professional criminal than other people. **AGREE** **DISAGREE** **UNDECIDED**
35. All laws should be obeyed. **AGREE** **DISAGREE** **UNDECIDED**
36. I have little in common with people who never break the law. **AGREE** **DISAGREE** **UNDECIDED**
37. A hungry man has the right to steal. **AGREE** **DISAGREE** **UNDECIDED**
38. It's OK to get around the law, as long as you don't break it. **AGREE** **DISAGREE** **UNDECIDED**
39. No one who breaks the law can be my friend. **AGREE** **DISAGREE** **UNDECIDED**
40. Only obey laws that seem reasonable. **AGREE** **DISAGREE** **UNDECIDED**
41. It's best to earn an easy living, even by breaking the law. **AGREE** **DISAGREE** **UNDECIDED**

**APPENDIX C**

**SELF-REPORT EARLY DELINQUENCY INSTRUMENT (20 ITEM)  
(SRED)**

### Research Questionnaire (Part 3)

Read each statement below and indicate whether you have ever engaged in this behaviour by circling either 'yes' or 'no'. Answer as honestly and openly as you can. All information will remain confidential.

- |   |     |    |
|---|-----|----|
| 1. I have damaged something in a public place.  | YES | NO |
| 2. I have started a fire where you should not burn anything.                                      | YES | NO |
| 3. I have damaged a parked car (like breaking an aerial, slashing tyres, scratching paint.)       | YES | NO |
| 4. I have stolen a thing or money worth over \$40.  | YES | NO |
| 5. I have broken into a house, flat or vehicle (to try to steal something or just look around.)   | YES | NO |
| 6. I have stolen something from an open shop or store (shoplifting)                               | YES | NO |
| 7. I have smoked cannabis.  | YES | NO |
| 8. I have used illegal drugs other than cannabis  | YES | NO |
| 9. I have had a fight in a street or other public place.  | YES | NO |
| 10. I have used a weapon in a fight (knife, bottle, chain, rock)                                  | YES | NO |
| 11. I have purposely littered the street or footpath by smashing bottles or tipping rubbish bins. | YES | NO |
| 12. I have driven a car or motorbike on a public road without a license.                          | YES | NO |
| 13. I have trespassed.  | YES | NO |
| 14. I have made rude phone calls, such as ringing someone and saying dirty or threatening things. | YES | NO |
| 15. I have sworn loudly in a public place.  | YES | NO |
| 16. I have painted or written graffiti on a wall in a public place.                               | YES | NO |
| 17. I have moved or damaged a traffic sign or road works equipment.                               | YES | NO |

18. I have let down the tyres of a car, truck or motorcycle. **YES NO**

19. I have thrown objects, such as rocks or bottles, at people or moving cars. **YES NO**

20. I have been cruel to an animal so as to injure the animal. **YES NO**

**APPENDIX D**

**INFORMATION SHEET FOR PARTICIPANTS**



# Massey University

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

SCHOOL OF PSYCHOLOGY  
Private Bag 102 904  
North Shore MSC  
Auckland  
New Zealand  
T 64 9 414 0800 extn 9180  
F 64 9 441 8157  
[www.massey.ac.nz](http://www.massey.ac.nz)

## An Investigation of Attitudes Related to Criminal Conduct

### INFORMATION SHEET

I am Rebecca Cargill and this study is part of my Masters research project. I am being supervised by Mei Wah Williams, School of Psychology, Massey University. The purpose of my study is to investigate certain attitudes that have been found to be related to criminal conduct. This type of study has been carried out with prison populations but not with a non-offending sample. We are interested in having a non-offending sample participate to see what the differences are. I invite you to participate by filling out a questionnaire. This will take no longer than 20 to 25 minutes. The questionnaire asks you about some of your attitudes and beliefs about the law, the police, and certain behaviours, and also to answer some questions about your own behaviours. The information you provide in this questionnaire will help us to understand the differences in attitudes between an offending and a non-offending sample.

Your participation in this study is entirely voluntary. Any information you provide for this study will only be seen by me, and will have no impact on your achievements and course standings. If you decide not to participate in my research, you will not be disadvantaged in any way.

The information collected from the questionnaires will be used to make comparisons with the attitudes found in previous studies. All questionnaires are anonymous and will have no identifying information. The information will be kept on a computer

disk in a locked file. Only my supervisor and I will have access to this file. The information will be kept in this file for 5 years, after which it will be destroyed. All questionnaires will be shredded as soon as the data has been put on disk, no later than December 2004. If you wish, a summary of the findings will be sent to you when the study is completed. There is a form at the back of this questionnaire, and a prepaid envelope provided for you to send your contact details to me for this purpose, separate from the questionnaire.

Completion and return of the questionnaire implies consent. If you do agree to participate in the study it is important you answer the questions as honestly and openly as you can. This information will remain confidential. You have the right to:

- Discuss any aspects of the study before agreeing to take part
- Refuse to answer any particular question.
- Provide information on the understanding that it is confidential to the researcher.
- Have access to a summary of the findings of the study when it is concluded.

If you have any questions about this research, please contact Rebecca Cargill, email: [puddleduck@free.net.nz](mailto:puddleduck@free.net.nz) or Mei Wah Williams, School of Psychology, Massey University, Private Bag 102904, North Shore MSC, Auckland; telephone (09) 414 0800 extn 9886, or email [M.W.Williams@massey.ac.nz](mailto:M.W.Williams@massey.ac.nz)

This project has been reviewed and approved by the Massey University Human Ethics Committee, ALB Application 04/033. If you have any concerns about the conduct of this research, please contact Associate Professor Kerry Chamberlain, Chair, Massey University Campus Human Ethics Committee, Albany, telephone 09 414 0800 x9078, email [humanethicsalb@massey.ac.nz](mailto:humanethicsalb@massey.ac.nz).

**APPENDIX E**

**HIERARCHICAL MULTIPLE REGRESSION TABLES**



*Model Summary*

	R	R square	Adjusted R square	Std Error	R square change	F change	df1	df2	Sig. F
1.	.421(a)	.177	.167	.93128	.177	18.273	2	170	.000
2.	.672 (b)	.452	.432	.76894	.275	20.840	4	166	.000

a. Predictors: (Constant), Age, Gender

b. Predictors: (Constant), Age, Gender, Violence, Entitlement, Antisocial Intent, Antisocial Associates

*ANOVA(c)*

	Sum of Squares	df	Mean square	F	Sig.
1. Regression	31.697	2	15.848	18.273	.000(a)
Residual	147.439	170	.867		
Total	179.136	172			
2. Regression	80.986	6	13.498	22.828	.000(b)
Residual	98.150	166	.591		
Total	179.136	172			

a. Predictors: (Constant), Age, Gender

b. Predictors: (Constant), Age, Gender, Violence, Entitlement, Antisocial Intent, Antisocial Associates

c. Dependent Variable: SRED Total

*Coefficients (a)*

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Standard Error	Beta	t	Sig.
1.	(Constant)	11.903	1.251		9.517	.000
	Age	-.873	.172	-.355	-5.085	.000
	Gender	-.284	.078	-.254	-3.643	.000
2.	(Constant)	5.276	1.311		4.025	.000
	Age	-.364	.153	-.148	-2.381	.018
	Gender	-.138	.067	-.123	-2.068	.040
	Violence	-2.02E-02	.037	-.034	-.542	.589
	Entitlement	-1.53E-02	.030	-.032	-.503	.615
	Intent	.136	.031	.338	4.378	.000
	Associates	.145	.031	.331	4.618	.000

a. Dependent Variable: SRED Total