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**Sociomoral Reasoning and Criminal Sentiments in Australian Men and Women  
Violent Offenders and Non-Offenders**

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**Abstract**

This study examined two risk recidivism risk factors (sociomoral development and criminal sentiments) in a sample of high-risk adult Australian offenders prior to intervention. Incarcerated men and women offenders (n = 99) convicted of serious violent index offences were compared with men and women university students (n = 101) on two empirical measures; the Sociomoral Reflection Measure-Short Form, and the Criminal Sentiments Scale. The results suggested that although the offenders' mean reasoning was lower than non-offenders', the offenders had a higher level of sociomoral development than previously assumed, primarily stage 3. Second, offenders' endorsed higher criminal sentiments than non-offenders. Finally, a reciprocal relationship existed between the constructs, where a negative attitude towards the justice system related to a higher willingness to neutralise law violation and a higher identification with criminal others. These relationships were stronger for offenders. Applied implications of the findings with respect to intervention are considered.

*Keywords:* Offenders; Attitudes; Criminal Sentiments; Moral Reasoning

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INTRODUCTION

Since the 1980s, a growing interest in the rehabilitation of violent offenders has emerged worldwide. Howells, Watt, Hall and Baldwin (1997) suggested this interest arose due to several factors. First, violent offenders comprise a large part of the prison population and represent a group of offenders who cause social concern due to the perceived or real "risk" of their reoffending when released. Second, despite claims that rehabilitation rarely worked (refer Martinson, 1974) several extensive meta-analyses have found that rehabilitation could reduce recidivism risk (Dowden & Andrews, 1999; Gendreau, Little & Goggin, 1996). Programs that appeared successful were those that targeted criminogenic needs, that is variables maintaining offending behaviour (Andrews & Bonta, 1998). Recent reviews suggest that two criminogenic needs, which can be

addressed through intervention, are sociomoral immaturity and criminal sentiments (refer McGuire, 1995).

Sociomoral immaturity, although not considered the direct cause, has been associated with violent offending behaviour and recidivism (Jennings, Kilkenny & Kohlberg, 1983). Cognitive-developmental theorists suggested that what differentiated offenders from non-offenders was the way offenders reasoned through their actions and how they constructed their worldview vis-a-vis their relationships with others, and their interpretation of social values (Goldstein, Glick & Gibbs, 1998). The emphasis of this theory was the structural form of reasoning, where developmental fixation at Kohlberg's (1984) pre-conventional level (stages 1 to 2/3) provided an egocentric and

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pragmatic worldview with little understanding of the needs and perspectives of others.

Most of the work investigating sociomoral delay has concentrated on young offenders. The cumulative findings suggest that the majority of male and female young offenders, especially aggressive offenders, were delayed in sociomoral development, using pre-conventional reasoning as the basis for their moral decision-making compared with matched non-offending peers who used conventional reasoning (stages 3 and above) (Basinger, Gibbs & Fuller, 1995; Blasi, 1980; Jennings et al, 1983; Palmer & Hollin, 1998). A recent meta-analysis by Nelson, Smith and Dodd (1990) with a pooled sample of 673 young recidivists compared with non-offenders supported the developmental delay hypothesis, reporting an effect size of .74. This effect size is independent of measurement instrument, age, ethnicity, I.Q. or socioeconomic status.

Several theorists proposed that sociomoral immaturity, characteristic of most young offenders, would generalise to adult offenders (Arbuthnot and Gordon, 1988; Jennings et al, 1983). However, few studies have investigated the sociomoral reasoning of adult non-sexual offenders compared with non-offenders. One study found no difference between 30 male maximum-security inmates and general population norms, with most offenders reasoning at stages 3 and 3/4 (Griffore and Samuels, 1978). In contrast, two other studies supported the developmental delay hypothesis with adult male offenders reasoning at pre-conventional levels (stages 2 and 2/3) (Thornton and Reid, 1982; Valliant, Gauthier, Pottier and Kosmyna, 2000). As the findings were inconsistent it is unclear whether delay represents an adolescent risk factor or can be generalised to adults, especially women. This is an issue of concern considering that an upward trend has been found in the number of women committing serious violent offences (Mukherjee & Graycar, 1997).

Criminal sentiments are attitudes and beliefs providing the proximal personal and interpersonal cognitive support for engaging in offending behaviour (Andrews & Bonta, 1998). Criminal sentiments have been found to represent three constructs; attitudes towards the law courts and police; tolerance for law violation (neutralisation of criminal behaviour); and identification with criminal others (Andrews & Wormith, 1984). These constructs are suggested to translate into the following patterns of thinking: "Police are just as crooked as the people they arrest", "It's alright for a person to break the law if they don't get caught",

and "People who have been in trouble with the law have the same sort of ideas about life that I have". This pattern of thinking is akin to Ajzen and Madden's (1986) theory of planned behaviour, where behaviour occurred as a consequence of an intention to act. Intentions were considered a function of: a positive attitude towards the behaviour; a perception that others would be supportive; and knowledge that the act, or something similar had been accomplished in the past, or perceived as accomplishable given the present circumstances.

Researchers investigating criminal sentiments have found significant relationships between the frequency of violent offending and negative attitudes towards authority, high social exposure to definitions supportive of law violation (neutralisations) and positive social support, especially peers, for offending behaviour (Alarid, Burton & Cullen, 2000; Mears, Ploeger & Warr, 1998; Title, Burke & Jackson, 1986; Vitaro, Brendgen & Tremblay, 2000). Recent studies have found that endorsement of criminal sentiments was highly predictive of a criminal past and future for adult men, explaining 40% of the variance in three-year recidivism (Andrews & Bonta, 1998). Gendreau et al (1996) using a pooled sample of 11,962 offenders found that criminal sentiments represented the highest risk factor for recidivism for both men and women. The measurement of criminal sentiments is considered an important aspect of pre-treatment assessment (Simourd, 1996). However, at present it appears that normative data are not available for Australian samples.

The purpose of this study was to expand our current knowledge of the sociomoral reasoning and criminal sentiments in Australian men and women violent offenders prior to intervention compared with non-offenders. Based on prior research it was predicted that offenders would have delayed sociomoral development compared with non-offenders. Second, offenders would endorse a higher level of criminal sentiments than non-offenders. Finally, a reciprocal relationship would exist between the three constructs of criminal sentiments; where higher negativity towards the justice system would relate to a higher willingness to neutralise law violations and a higher self-identification with criminal peers. The magnitude of these relationships was expected to be stronger for offenders than non-offenders. Differences between men and women on all measures were not expected.

## METHOD

### *Participants*

Participants were 200 adult Australian citizens or permanent residents, recruited from two naturally occurring populations. Participation was voluntary, with no rewards provided.

The offender participants were serving sentences in four Western Australian metropolitan prisons for serious non-sexual index offences (homicide, armed robbery, arson, aggravated assault). Sentence length ranged from 3 years to life. All offenders had served 6 months of their sentence, and none had participated in prior intervention for sociomoral reasoning or criminal sentiments. One hundred and thirteen offenders were invited to participate, 99 consented. Forty-one were women, mean age 29.71 ( $SD = 9.48$ ) and 58 were men, mean age of 31.90 ( $SD = 8.78$ ). The offender sample had been assessed as having a high-risk of violent re-offending.

For male offenders, this assessment was based on the Level of Service Need Inventory (LOSNI), which targets six recidivism predictors: level of drug use; level of alcohol use; age at first offence; history of generalised offending; highest degree of personal injury occurring in index, and past violent offences. The LOSNI has a predictive accuracy for violent recidivism of between .72 to .76. A score of 11+ on the inventory identifies violent offenders in line for intensive treatment before release from prison (Ward & Dockerill, 1999). Fifty-four of the 58 male offenders in this sample had a score above this cut-off. At the time of this study LOSNI assessments had not been carried out with female offenders. The female participants in this study were identified as being at high-risk of violent re-offending by a senior member of staff at the Department of Justice in Western Australia. This assessment was based on information contained in client files and based on the six predictors targeted in the LOSNI, as described above.

The non-offenders were first and second year Murdoch University undergraduates. Of the 331 questionnaires distributed 101 scorable forms were returned. Of these, 54 were women, mean age 26.17 ( $SD = 8.84$ ) and 47 were men, mean age of 27.79 ( $SD = 9.21$ ).

### *Measures*

#### Sociomoral Reasoning.

The Sociomoral Reflection Measure–Short Form (SRM-SF; Gibbs, Basinger & Fuller, 1992) is a

paper and pencil production measure designed to assess stage of sociomoral reasoning. Eleven social values are assessed including contract, affiliation, life, property, law and legal justice. Participants are asked whether each value is important or not and to justify their decision. Each justification is matched to stage indicative responses from the SRM-SF scoring manual. Questionnaires must yield seven scorable responses to be used for analysis. The primary score is the SRMS, the mean of the items, ranging from 100 to 400. From the SRMS the global stage may be assigned, representing developmental vicinity of the SRMS: for example, SRMS 100-124 = stage 1; SRMS = 125-149 = transition 1 (2); SRMS 150 – 174 = transition 2 (1); SRMS 175 – 225 = stage 2. The measure is reported to have good reliability and validity, and is comparable to Colby and Kohlberg's (1987) Moral Judgement Interview (Gibbs et al, 1992).

#### Criminal Sentiments.

The Criminal Sentiments Scale (CSS; Andrews & Wormith, 1984) is a 41-item paper and pencil measure divided into three subscales. The first subscale measures attitudes towards the law, courts and police (ALCP); "The law does not benefit the common person". The second subscale, tolerance for law violation (TLV) measures the degree to which a person is willing to neutralise criminal behaviour; "A hungry person has the right to steal". The third subscale measures identification with criminal others; "I would rather associate with people that obey the law than those that don't". Items are scored using a 5-point Likert scale, (1) "strongly agree" to (5) "strongly disagree", and scaled in positive and negative directions. After reversal, lower ALCP scores reflect higher negativity towards the justice system, and higher TLV and ICO scores reflect a greater willingness to endorse neutralisations, and self-identification with criminal others. Good reliability and validity are reported (Andrews, 1985).

#### Criminal Involvement.

The Antisocial Behaviour Scale (ABS; Simourd, 1999) is a 24-item paper and pencil self-report measure that assess frequency of criminal behaviour. Participants are asked how often they have engaged in a variety of illegal acts that fall under five broad categories: driving offences; vandalism; drug related offences; theft and forgery; and verbal or physical assaults. Items are scored using a 4-point Likert scale, (0) "Never" to (3) "More than 4 times". Items are totalled to give an overall score. For screening purposes, each participant's total score is compared with normative

data. Good reliability and discriminant validity are reported (Abbott, 2000).

*Procedure*

Male offender participants were prisoners who were randomly selected from a six-month intensive treatment program waitlist for high-risk violent offending. Female offender participants were selected at random from a name list identifying high-risk violent women offenders developed by the Department of Justice specifically for this study. Offender participants were interviewed separately in official prison interview rooms. Upon arrival participants were invited to volunteer for the study, which involved the completion of two measures, the SRM-SF and CSS. Interviews ranged from 40 to 90 minutes.

Non-offender participants were recruited through university lectures. A presentation describing the study was made and questionnaire packs distributed to volunteers. The order of questionnaires was the same as for the offender participants; SRM-SF and CSS. In addition, the non-offenders completed the ABS to confirm their non-offender status. Questionnaire packs were completed in the students' own time and returned anonymously. A debriefing session was held after the data were collected.

All participants were assured of the confidentiality of their responses. Consent was freely obtained and as in accordance with the Australian Psychological Society's ethical guidelines.

RESULTS

*Preliminary Analyses*

Thirty SRM-SF forms were scored blind by a second rater. Inter-rater agreement for the SRMS ( $r$

(30)= .93,  $p < .001$ ) was within the recommended range, and consistent with prior research (Gibbs et al, 1992).

The mean scores for sociomoral reasoning are shown in table 1. The offenders had a lower mean score compared with non-offenders, although the mean for both samples was at the conventional level (stage 3 and above). As shown in table 2, the global scores suggest that the majority of participants regardless of group used conventional reasoning, although fewer offenders used the higher stages (3/4 and above). The offenders' reasoning was higher than previously reported norms (Basinger et al, 1995). However, these norms were based on young American offenders, which may not be comparable to the present sample of adult offenders. Adult offender norms have not been compiled, and as mentioned prior findings with adult samples have been inconsistent. In contrast, the non-offenders' reasoning was similar to English mature age university students (Palmer & Hollin, 1997).

The means for the CSS subscales are shown in table 1. As expected, offenders endorsed a higher level of pro-criminal sentiments than non-offenders. Compared with Canadian Federal offender norms (Andrews, 1985) the offenders' endorsed higher negativity towards the justice system (ALCP) and higher tolerance of law violation (TLV) although their identification with criminal others (ICO) was similar. The differences between the offender sample and the Canadian norms may reflect recidivism risk level. Members of the present sample were at high-risk for violent recidivism, whilst the norms were a pooled sample of general offenders with mixed risk levels. In contrast, the non-offender sample endorsed a similar level of criminal sentiments as Canadian University undergraduate norms (Andrews, 1985).

Table 1  
*Mean SRM-SF and CSS subscores by group*

Group	(n)	SRMS <sup>a</sup>	ALCP <sup>b</sup>	TLV <sup>c</sup>	ICO <sup>d</sup>
Offenders					
Men	58	306.64 (27.48)	76.52 (13.40)	30.59 (6.54)	17.84 (3.46)
Women	41	304.60 (34.63)	72.88 (13.91)	29.00 (6.67)	16.76 (3.46)
Non-offenders					
Men	47	336.91 (27.62)	85.15 (11.24)	26.15 (4.80)	15.15 (2.58)
Women	54	333.95 (25.32)	86.94 (12.57)	25.44 (5.04)	13.94 (2.96)

Note. Standard deviations in parentheses. <sup>a</sup>Sociomoral reflection mean score.

<sup>b</sup>Attitudes towards law, courts and police.

<sup>d</sup>Identification with criminal others.

<sup>c</sup>Tolerance for law violation.

Table 2  
SRM-SF Global Stages frequencies and percentages by group

Global Stage	Offender				Non-offender			
	Men		Women		Men		Women	
	n	%	n	%	n	%	n	%
2	1	1.7	0	0.0	0	0.0	0	0.0
2 (3)	0	0.0	2	4.9	1	2.1	0	0.0
3 (2)	7	12.1	5	12.2	0	0.0	1	1.9
3	35	60.3	24	58.5	15	31.9	15	27.8
3 (4)	12	20.7	5	12.2	16	34.0	24	44.4
4 (3)	3	5.2	4	9.8	11	23.4	11	20.4
4	0	0.0	1	2.4	4	8.5	3	5.6

To confirm non-offender status the responses to the ABS were totalled and compared with a normative sample. The present sample of undergraduates reported a similar frequency of criminal behaviour compared with Canadian undergraduate samples, and a lower frequency compared with Canadian offenders, suggesting that the present student sample can be considered representative of non-offenders.

#### *Group and Sex Differences in Sociomoral Reasoning*

A 2 (group) x 2 (sex) Analysis of Covariance, controlling for age, explored the differences in sociomoral reasoning between men and women offenders and non-offenders. Age was co-varied because the non-offenders were significantly younger than offenders ( $t(198) = -3.18, p = .002$ ), ( $M_{\text{non-offenders}} = 26.92; M_{\text{offenders}} = 30.99$ ), and with age positively correlated with reasoning for non-offenders ( $r(101) = .30, p = .003$ ); and offenders ( $r(99) = .30, p = .004$ ). With an alpha level of .05, the effect of group was statistically significant, with the offenders' reasoning being lower than non-offenders', ( $F(1, 195) = 69.15, p < .001$ ) the effect size was medium, ( $\eta^2 = .262$ ). No significant difference in reasoning was found between men and women ( $F(1, 195) = .043, p = .837, \eta^2 < .001$ ) and with the influence of group on sociomoral reasoning being independent of sex ( $F(1, 195) = .029, p = .864, \eta^2 < .001$ ).

#### *Group and Sex Differences in Criminal Sentiments*

A 2 (group) x 2 (sex) Multivariate Analysis of Variance was performed to examine the differences between men and women offenders and non-offenders in endorsement of criminal sentiments. The dependent variables (DV) were the 3 constructs

of criminal sentiments, ALCP, TLV, and ICO. Using an alpha level of .05 the MANOVA found a significant difference for the combined DVs for the effect of group ( $F(3, 194) = 18.031, p < .001, \eta^2 = .218$ ) and sex ( $F(3, 194) = 3.350, p = .020, \eta^2 = .049$ ) but not for their interaction ( $F(3, 194) = 1.24, p = .124, \eta^2 = .029$ ).

Analyses of variance on each DV was performed as follow-up tests. To reduce type 1 error risk per test alpha was set at .0166. Significant differences were found for the effect of group on all DVs, with offenders' endorsing higher negativity towards the justice system (ALCP,  $F(1, 196) = 38.55, p < .001, \eta^2 = .164$ ); a greater willingness to neutralise offending behaviour (TLV,  $F(1, 196) = 23.21, p < .001, \eta^2 = .106$ ); and a higher identification with criminal others (ICO,  $F(1, 196) = 37.87, p < .001, \eta^2 = .162$ ). The MANOVA had found the effect of sex significant, although the univariate analyses attributed this difference to only one variable, ICO, with women identifying less with criminal others than men, ( $F(1, 196) = 6.57, p = .011$ ). However, the effect size was weak,  $\eta^2 = .032$ . For ALCP and TLV, the univariate analyses found sex insignificant, ( $F(1, 196) = .25, p = .615, \eta^2 = .001$ , and  $F(1, 196) = 1.91, p = .169, \eta^2 = .010$ , respectively). None of the univariate group by sex interactions were significant, ALCP ( $F(1, 196) = 2.21, p = .139, \eta^2 = .011$ ); TLV ( $F(1, 196) = .282, p = .596, \eta^2 = .001$ ); and ICO ( $F(1, 196) = .017, p = .90, \eta^2 < .001$ ).

#### *The Relationship Between the Constructs of Criminal Sentiments*

Correlations were used to assess the relationships between the three constructs of criminal sentiments and to investigate whether age was related to endorsement for offenders and non-offenders. The correlations are presented in table 3.

Table 3  
*Interrelations for the Three Constructs of Criminal Sentiments*

Group	Variable	ALCP	TLV	ICO
Offenders (n = 99)	1. ALCP	-	-	-
	2. TLV	-.630**	-	-
	3. ICO	-.546**	.750**	-
	4. Age	.234*	-.084	-.132
Non-offenders (n = 101)	1. ALCP	-	-	-
	2. TLV	-.585**	-	-
	3. ICO	-.203*	.389**	-
	4. Age	-.128	-.091	-.084

Note. \*\*  $p < .01$  (2 tail). \*  $p < .05$  (2 tail).

The results suggested that the three constructs were related, and as expected, these relationships were stronger for offenders than non-offenders. Further, the patterns of correlations suggested a reciprocal relationship, where a negative attitude towards the justice system related to higher tolerance for law violation and higher identification with criminal others. Contrary to prediction, for the non-offenders, age was weakly related to endorsement of all 3 variables. For offenders, age was only related to endorsement of more positive attitudes towards the justice system, but unrelated to tolerance for law violation, or identification with criminal others.

## DISCUSSION

The first hypothesis investigated the claim that sociomoral delay, characteristic of most young offenders, would extend to adult offenders (Arbuthnot & Gordon, 1988; Jennings et al, 1983). The findings did not support this claim, with the majority of offenders demonstrating an ability to use conventional level reasoning, primarily stage 3. Relative to non-offenders, offenders' mean reasoning score was lower, with fewer offenders demonstrating the higher stages (3/4 and 4). Finally, although differences in reasoning between men and women were neither predicted, nor found, these findings are important because they appear to represent the first empirical results investigating the sociomoral development of women convicted of serious violent index offences.

With respect to prior adult studies, these findings are more divergent than convergent. The earlier work of Griffiore and Samuels (1978) is perhaps the most convergent. The present sample of offenders were similar in age and security rating, although fewer of the present participants demonstrated the higher stage (3/4) found in Griffiore and Samuels'

sample. However, it was unclear whether any of Griffiore and Samuels' sample had participated in prior intervention. This potential confound was controlled in this study, which could explain the differences in stage usage. Regarding the findings of Thornton and Reid (1982) and Valliant et al (2000), the present results are divergent. This may have occurred due to the differences in samples sizes used by Thornton and Reid (1982) and Valliant et al (2000) (both  $n=20$ ) which may have had the result that fewer offenders with conventional level reasoning were tested simply by chance. This suggests that the larger sample used in this study not only provided more statistical power, but was able to capture the widely noted clinical observation that adult offenders are not homogeneous in their socio-cognitive abilities (Blackburn, 1993).

In addition, the results further suggest that developmental progression was occurring with increasing age, for both offenders and non-offenders, with a positive correlation of a similar magnitude found for both groups. Of importance, because the offenders had not participated in prior sociomoral intervention, stage progression appeared to be occurring in the absence of intervention. This finding has applied implications. The rationale for sociomoral reasoning intervention was that a person could be competent in anger-management, or communication skills, but may still choose to behave violently towards others because of a poor understanding of how personal actions affect others beyond the immediate situation. The aim of intervention is to increase sociomoral reasoning to stage 3 or above (Goldstein et al, 1998). Although the offenders in this study demonstrated lower reasoning than the comparison group, the offender mean was at stage 3. Because stage 3 to 4 is considered the adult norm for the general population (Gibbs et al, 1992) an issue to consider

is whether the majority of adult violent offenders require sociomoral intervention.

Hypothesis two investigated the differences between men and women offenders and non-offenders in their endorsement of pro-offending attitudes and beliefs. As predicted, offenders endorsed a higher level of criminal sentiments than non-offenders. The group differences are convergent with the earlier work of Andrews and Wormith (1984) and Wortley (1986) and add further empirical support to the claim that the endorsement and internalisation of criminal sentiments are an important variable differentiating offenders from non-offenders (Andrews & Bonta, 1998).

Regarding sex differences in endorsement of criminal sentiments, as predicted, men and women expressed similar attitudes towards the justice system and a similar willingness to neutralise law violation. However, in this study women identified less with criminal others than men, although the effect size was small, with sex explaining 3.2% of the variance in identification. This slight sex difference is in line with the earlier findings of Mears et al (1998) and Alarid et al (2000). Mears et al had found that adolescent boys spent more time with peers in general, had a higher exposure to peers who suggested they engage in offending behaviour, and also knew more peers who engaged in offending behaviour; the ratio for these differences being 2:1. In an adult sample of violent offenders Alarid et al had found that attachments to criminal others, although significant for women, was a much stronger predictor of violent offending for men. The influence of criminal peers on others offending behaviour is a contentious issue. However, the present results combined with earlier work suggest that the influence of criminal peers, and the self-identification with criminal others interacts differently by sex, although the difference is slight. This is an important area for future research.

The final hypothesis predicted that a relationship would exist between the constructs of criminal sentiments. The correlations observed suggested that a reciprocal relationship existed where a negative attitude towards the justice system related to a higher willingness to neutralise offending behaviour and a higher self-identification with criminal others. As predicted, the magnitude of these relationships was stronger for offenders, in some instances double that of non-offenders. These results are convergent with the earlier work of

Alarid et al (2000), Andrews and Wormith (1984), Title et al (1986); Vitaro et al (2000).

A relationship between increasing age and a reduction in pro-criminal sentiments was also predicted. Endorsement of pro-criminal sentiments has been found to represent the highest risk factor for re-offending (Gendreau et al, 1996) and crime trends suggest that offending behaviour reduces with age (Mukherjee & Graycar, 1997; Farrington, 1997). Combining these factors would suggest that endorsement should reduce with age. In this study, the only sentiment related to age was endorsement of more positive attitudes towards the justice system for older offenders, and the strength of this relationship was weak, accounting for 5.4% of the total variance. These results diverge from earlier findings of Alarid et al (2000) and Andrews and Wormith (1984) who had found low, but significant correlations, between age and all three variables. Several reasons may explain this finding. First, in this study the distributions for age were positively skewed for both offenders and non-offenders, which may have masked the effect of age on criminal sentiments, where endorsement reduces as a function of older age, rather than age per se. Second, specifically relating to the offender group, their high endorsement of sentiments may not only reflect their average age, but also their status, high-risk for violent reoffending. Official crime rates in Australia found that most violent offences are committed by people aged 18 to 30 (Mukherjee & Graycar, 1997), the age range of many offenders in this study. Further, Simourd (1996) noted that high-risk adult offenders appear to have a strong commitment to criminal sentiments, strenuously defending their attitudes and beliefs whenever another point of view is presented, suggesting that sentiments are internalised, and therefore enduring. However, before concluding that attitudes towards the justice system may be a lower risk factor for older offenders, it is important to note that offenders in this study endorsed significantly higher negativity towards the justice system than Canadian offender norms. Therefore, increasing age for this sample may simply be a reduction to the level of negativity endorsed by lower-risk offenders. Alternatively, because serious violent index offences attract long sentences, the reduction in negativity could be due to dissonance reduction, where given the circumstances (incarceration, in some cases 20 or more years) rather than maintain a negative attitude toward the incarcerator, more positive attitudes may develop. However, because the main people to associate with prison are other offenders, and as Reckless (1940) suggests,

neutralisations are part of prison culture, then tolerance or identification may not necessarily reduce. We are currently investigating the relationships between date of imprisonment, first eligible date for parole application, and endorsement of criminal sentiments.

A limitation of this research is the use of university students as the comparison group. Shaughnessy and Zechmeister (1997) stressed that as students are a selective subset of the population any results obtained may not necessarily be generalisable to the wider community. With respect to this study, the comparison group may have differed from the offender group on a number of variables not measured in this study (such as socio-economic status and education level), and although age was controlled statistically, the group comparative findings should be interpreted with caution. Future studies could consider using an ecologically valid non-offender sample. This would address an important question, are violent offenders different in their sociomoral development and endorsement of criminal sentiments compared with non-offenders in the community?

In summary, this study has expanded our current knowledge of Australian high-risk men and women violent offenders prior to intervention. The findings suggest that offenders demonstrated a higher level of sociomoral development than previously assumed. Further, offenders endorsed a higher level of criminal sentiments than non-offenders and Canadian offender norms. These results combined suggest that intervention programs may find utility in targeting pro-offending attitudes, beliefs and self-identification with offending peers rather than aiming to increase sociomoral development.

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