# Delinquency and Reputational Orientations of Adolescent at Risk and Not at Risk Females

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#### Abstract

The research reported investigated differences in the forms of delinquent activities and the reputational orientations of at risk and not at risk male and female adolescents. Initially, we sought to establish that adolescent males and females were different in these aspects. This was found to be the case with multivariate analyses of variance revealing that males (n = 722) scored significantly higher than females (n = 738) on seven self-reported delinquency variables and on eight reputation enhancement variables pertaining to social deviance, nonconforming reputation, and power/evaluation private identity. When a sample of 31 at risk females was subsequently pair wise age matched with 31 not at risk females, it was found that apart from school misdemeanours, at risk females scored significantly higher on all six other delinquency variables. These at risk females also scored significantly higher on four reputation enhancement variables relating to social deviance and nonconformity. Given that at risk females did not differ to their not at risk counterparts in their level of involvement in school misdemeanors, we sought to determine whether this was also the case for at risk and not at risk males. An age matched sample of 91 pairs revealed that at risk males reported significantly higher involvement than not at risk males in all aspects of delinquency, including school misdemeanors. They also sought a more non-conforming reputation. To explore the relationships between delinquency and reputation enhancement a Canonical Correlation Analysis was performed. All findings are discussed in the light of reputation enhancement theory.

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Many young people indulge in delinquent behaviours but because they do not receive an official caution or warrant, or reach incarceration, they do not become part of the official statistics on delinquency. These individuals are referred to as being "at risk" because as a consequence of their involvement in these activities, they place themselves in danger of future negative outcomes (McWhirter, McWhirter, McWhirter, & McWhirter, 2007). Research (Carroll, Houghton, Hattie, & Durkin, 1999; Houghton & Carroll, 1996, 2002) has shown that these adolescents are in an intermediate state of transition whereby delinquent type goals and behaviours are becoming more attractive to them. These delinquent behaviours have been referred to as a continuum that deviate from mainstream social standards in ways that have resulted, or could result in serious disciplinary or adjudicatory consequences (Lorion, Tolan, & Wahler, 1987). Lorion et al. (1987) chart a continuum of behaviours that are simply socially unacceptable to school authorities (e.g., disrupting the classroom, rejecting teacher support) through to others that are illegal and problematic by virtue of the age of the offender (e.g., status offences such as truancy, running away, substance use), to those that are illegal acts independent of the offender's age (e.g., assault, vandalism, arson, robbery, rape). The outcomes of these behaviours can lead to disciplinary consequences ranging from school suspension and expulsion to legal convictions and incarceration.

In Western societies, youth crime rates have increased substantially over the past 10 years. For example, in the USA arrests of individuals under 18 years of age have increased 98% for assault, 23% for property offences, and 120% for drug offences (Stahl, 1998). In Australia, the Australian Institute of Criminology (2002) cites the offending rate for persons aged 15 to 19 years to have been more than five times the offender rate of the remainder of the Australian population in 2000–2001. Historically, the field of delinquency research has primarily focused on males, particularly during adolescent development (Carroll, Houghton, Wood, Perkins, & Bower, 2006), because males are more likely than females to be involved in these activities. Consequently, the

issues pertaining to female delinquency have largely been ignored, except when addressed in the light of studies involving males. Furthermore, female delinquency has not been a priority for researchers until recently because aggressive and overt behaviours were seen to be more common among boys and the implications of girls' delinquent behaviours were thought to be not as extensive (Carroll, Houghton, Durkin, & Hattie, 2003; Keenan, Loeber, & Green, 1999).

There is now an increased interest internationally in the field of female delinquency due to figures showing female involvement in delinquent activities has escalated over the last decade (Kerpelman & Smith-Adcock, 2005). Official offending figures showing increases in the incidence of adolescent female offending have been recorded globally (American Bar Association and National Bar Association, 2001; Kim & Kim, 2005; Sickmund, Sladky, Kang, & Puzzanchera, 2007). In the USA official figures show that while 15% of all male arrests involved a person younger than age 18, for females this figure was 20% (Sickmund et al., 2007). Although offender rates in Australia remained relatively stable for the juvenile population from 1995 to 2001, there was an increase in the percentage of female juvenile offenders from 21% in 1995 to 25% in 2001 (Australian Institute of Criminology, 2002).

With reference to serious offences more males are implicated than females. According to Snyder and Sickmund (1999) official records show that boys in the USA are 5.8 times more likely to be convicted of serious offences like burglary, assault, and murder than females and 3 times more likely to be found carrying a weapon (U.S. Department of Justice, 2006). If such comparisons of male and female rates of involvement in delinquent activities are based on intent to cause harm or damage, however, the gender gap narrows and in some cases disappears (Crick & Grotpeter, 1995). Moreover, if female involvement in covert relational forms of aggression (i.e., pushing, shoving, spreading rumours, and weapon carrying) are compared to male involvement in more violent behaviours, then the male to female ratio drops from 4:1 to 2:1 (Moffitt & Caspi, 2001). What is clear from official figures is that female involvement in aggressive and antisocial

activities has increased over the last decade (Office of Juvenile Justice and Delinquency Prevention, 2007; Statistics Canada, 2007).

According to Carroll, Green, Houghton, and Wood (2003) high school males engage in delinquency at a higher rate than females and this varies with year level. For example, stealing, school misdemeanours, vehicle-related offences, and property and person damage are greatest among 14-15 year olds students, which is in line with previous research that delinquency reaches its peak between the ages of 14 and 15 (Blackburn, 1993; Emler & Hopkins, 1990) and declines thereafter. Moreover, a longitudinal study conducted over a 3-year period with 249, 13-15 year old Western Australian high school students (Houghton & Carroll, 2002) revealed individuals 'at risk' of delinquent outcomes were significantly more involved than their non delinquent counterparts in delinquency and that this increased during this age period. Specifically, there was a 6-fold increase in purchasing alcohol, almost a 4-fold increase in drinking alcohol in public places, and a 3-fold increase in using marijuana. For more serious delinquent activities there was nearly a 3-fold increase in driving a car at high speeds in the city, while dealing drugs increased over 2.5-fold.

#### Social Reputations

According to Emler (1984) and Emler and Reicher (1995) reputation enhancement theory posits that individuals choose a particular self-image they wish to promote before an audience of their peers and this audience then provides feedback so that the individual develops and maintains this social identity within a community. Extensive research has revealed that many adolescents resort to illegal methods to initiate their desired nonconforming reputation and that continued involvement in delinquent behaviours shapes changes in and maintains this reputation over time (Carroll, 1995; Carroll, Baglioni, Houghton, & Bramston, 1999; Carroll, Hattie., Durkin., & Houghton, 2001; Carroll et al., 2003; Emler, 1990; Emler & Reicher, 1995; Houghton & Carroll, 1996; 2002). Moreover, in examining the trajectories of primary and secondary school aged at risk

and not at risk young persons Carroll, Houghton, Durkin and Hattie (in press) provide strong empirical evidence from 15 years of research to show how delinquency and reputations change over time.

Thus, the significance of reputation enhancement theory in explaining delinquent behaviours in school aged individuals has been demonstrated. What has also become clear is that peer expectations are the driving force for most adolescents and hence misdemeanours are generally committed in the presence of others. Since adolescents indulge in delinquent or non delinquent activities in a deliberate attempt to attract an audience and sustain membership of a particular group, reputations for all behaviours are by choice (Carroll, Houghton, & colleagues, 1994 - 2007).

A major and acknowledged limitation of the research conducted to date, however, is that reputation enhancement theory has almost exclusively been used to guide research with male adolescents (Kerpelman & Adcock-Smith, 2005). This is somewhat surprising given that in earlier research, Emler and Reicher (1995) asserted that although girls are less likely to adopt the oppositional stance that promotes nonconforming reputations and delinquent behaviour, further insight is required to understand the female social experience so as to extend reputation enhancement theory to girls' delinquency.

Of the limited research conducted, Carroll et al. (2003) concluded that reputation enhancement is salient for girls. More recently, Kerpelman and Adcock-Smith (2005) demonstrated that reputation enhancement is a strong and direct predictor of delinquent activities and that girls' social groups or the approval of girlfriends are influential in delinquent activities. However, this latter study contained only a small number of females who reported involvement in delinquent activities and for those who did report involvement, the different types of activities were not assessed. Nonetheless, Kerpelman and Adcock-Smith (2005) concluded that "taken together, the findings highlight the importance of using a psychosocial perspective (i.e., reputation enhancement) when examining girls' delinquency" (p. 194).

The proposed research seeks to address the lack of empirical evidence by examining the differing delinquent activities and reputational orientations which exist among delinquent and non delinquent females adolescents. To do this, it was first necessary to examine whether such differences existed between male and female adolescents.

# Study One - Self-reported delinquency and reputational orientations of male and female adolescents

#### Method

# **Participants**

Participants in this study were 1460 adolescents (722 males, 738 females) (with ages ranging from 12 to 17 years; Mean age for males = 14.66 years, SD = 1.43 and for females 14.54 years, SD = 1.46) from 10 state high schools in Brisbane (Queensland) and Perth (Western Australia), and three detention centres. Of these, 132 were incarcerated in the juvenile facilities and 1,328 were high school students. Specifically, there were 92 12 year olds (44 males, 48 females), 287 13 year olds (130 males, 157 females), 345 14 year olds (164 males, 181 females), 298 15 year olds (162 males, 136 females), 260 16 year olds (131 males and 129 females), and 178 17 year olds (91 males, 87 females). The high school students were representative of Australian high school students from schools located in low to high socio-economic status regions. In Australia, the states of Queensland and Western Australia have the third largest and the fifth largest population respectively, therefore the capital cities of these two states provide a fair representation of the socio-economic milieus of Australian cities.

#### Settings

All instrumentation was administered to participants in their regular schools by one of the researchers under examination like conditions. Each administration took approximately 30 minutes and was carried out in groups of approximately 20 students. In some instances the instruments were administered in smaller groups of four or five to cater for participants with special needs. At these times the instructions were read to the groups verbatim by the researcher. At the detention centres, instruments were administered by one of the researchers to groups of four to six. As in schools, one of the researchers read the questions verbatim to participants.

#### Instrumentation

Two self-report scales (i) *The Adapted Self-Reported Delinquency Scale* (ASDS; Carroll et al., 1996), and (ii) The *Reputation Enhancement Scale* (RES; Carroll, Houghton, et al., 1999) were administered to all the participants. Of the four main approaches used to study delinquency, self-report measures have been used most extensively. Despite criticism about the validity and reliability of the data collected through self-report measures (Emler, Heather, & Winton, 1978; Mak, 1993), the self-report scales have been validated against official records (Gold, 1970) and are deemed reliable measures for revealing undetected crimes (Blackburn, 1993). Furthermore, researchers have found a correlation of approximately .80 between official records and self-reported delinquency (Singh, 1979).

The Adapted Self-report Delinquency Scale (ASDS; Carroll et al., 1996) is a self-report scale comprising 52 items designed to measure a broad range of frequently reported delinquent activities among Australian youths (ranging from minor misdemeanours to more serious offences). The items included in the scale are based on preceding research on delinquency and the wording is consistent with adolescent usage. Participants report the frequency in which they engaged in delinquent acts during the last 12 months on a 6-point scale with the following anchor points: never, 1-3 times, 4-6 times, once a month, more than once a month, and more than once a week. The most recent factor analysis (Carroll et al., 2006) has revealed consistency of the seven subscales along with the following reliability coefficients: Abuse of Property (seven items),  $\alpha =$ .91; Hard Drug-Related Offences (five items),  $\alpha = .89$ ; Physical Aggression (three items),  $\alpha = .88$ ; Stealing Offences (five items),  $\alpha = .90$ ; School Misdemeanours (seven items),  $\alpha = .86$ ; Soft Drug (five items),  $\alpha = .88$ ; and Vehicle-Related Offences (nine items),  $\alpha = .94$ . Furthermore, one item reporting police warnings and one item reporting court appearance are included in the scale to gain a measure of self-reported official delinquency status. Additional four "lie" items are interspersed among the delinquency items to verify reliability (Mak, 1993).

The Reputation Enhancement Scale (RES; Carroll et al., 1999) is a 150-item self-report scale with five major dimensions assessing group affiliation, admiration for law abiding and lawbreaking activities, self-perception and ideal public self, self-description and ideal private self, and communication of events. Details of the five dimensions, which have a readability of Year 5 level, are as follows: (a) An 8 item Sociability scale ( $\alpha = .83$ ) determines the value participants place on friendship and group membership. It is measured on a 6-point scale ranging from strongly agree to strongly disagree; (b) A 32 item Social Desirability scale examines the admiration of law-abiding and law-breaking activities. It has a 6-point response format consisting of the following points: not at all, very little, somewhat, quite a bit, very much, and completely. It comprises four sub factors: Self-perceived social deviance norms,  $\alpha = .90$ ; Self-perceived social conformity norms,  $\alpha = .81$ ; Evaluative reactions to others social deviance,  $\alpha = .91$ ; and Evaluative reaction to others social conformity,  $\alpha = .76$ ; (c) A 30 item Social Identity scale measuring participants' self-perception and how they would ideally like others to view them uses a 6-point scale with anchors never, hardly ever, occasionally, sometimes, often, and always. It has four sub factors: Nonconforming selfperception,  $\alpha = .91$ ; Conforming self-perception,  $\alpha = .75$ ; Nonconforming ideal public self,  $\alpha =$ .91; and Conforming ideal public self,  $\alpha = .82$ ; (d) The Self-Identity scale, which is made up of two sets of 12 semantic differentials measuring how participants describe themselves and how they would ideally like to be described in terms of power (i.e., strong-weak; tough-soft) and activity (i.e., mean-kind; nasty-friendly) attributes. This uses a 6-point scale, with semantic differential anchor points ranging from one extreme of a relevant variable (e.g., "I think I am a leader") to the other extreme (e.g., "I think I am a follower") and has four sub factors: Activity self-description,  $\alpha = .75$ ; Power/evaluation self-description,  $\alpha = .72$ ; Activity ideal private self,  $\alpha = .82$ ; and Power/evaluation ideal private self,  $\alpha = .73$ ; and (e) A 56 item Communication of Events measuring patterns of disclosure of events to adults and/or peers by participants, using a 4-point response format of *friends*, *parents*, *other adults*, and *I would not want anybody to know*. This has four sub factors: Brag,  $\alpha = .90$ ; Status,  $\alpha = .91$ ; Face,  $\alpha = .87$ ; and Rebel,  $\alpha = .83$ .

#### Procedure

Ethics approval for the project was obtained from the Human Research Ethics Committee of the administering institutions. Ten state schools from Brisbane (Queensland) and Perth (Western Australia) were then randomly selected to attain a representative sample of the Australian high school students. The principals of all schools were contacted to obtain permission to undertake the research. There was a 100% response rate as all contacted principals agreed to participate. Following this, an information sheet explaining the purpose and nature of research along with a consent form and assurance of confidentiality was sent home to the parents of all students in each of the randomly selected classes of all participating schools. Overall, there was a 70% positive response rate. Prior to administration students were again verbally assured by one of the researchers of the confidentiality and anonymity of their responses.

A similar procedure was followed in the detention centres once informed consent had been obtained from the Heads of the Centres, their ethics boards, the participants, and where possible, their parents/guardians.

#### Results

As the scores on the variables of the ASDS are not totally independent of the scores on the RES, two separate multivariate analyses of variance (MANOVAs) were conducted. The first MANOVA investigated participant's self-reported delinquency (seven variables of ASDS) for gender, while the second explored the effect of gender on the 17 variables of the RES. The Wilks' criterion was used to evaluate multivariate significance and univariate *F*-tests were conducted when significant multivariate results were obtained. Univariate *F*-values were determined to be significant using Bonferroni adjusted alpha levels of .007 and .003 for the ASDS and RES variables, respectively to control for Type 1 errors. Effect sizes and power estimates are reported.

# Gender Differences in Self-Reported Delinquency

A between-subjects MANOVA on the seven dependent variables of the ASDS revealed a main effect of gender [F(7, 1429) = 20.39, p < .000, partial  $\eta^2 = .09$ ] Using a Bonferroni adjusted alpha level of .007 all seven self-reported delinquency variables reached statistical significance for gender, with males scoring significantly higher than females on all variables. The univariate *F*-tests and observed means for the main effect of gender are shown in Table 1.

Table 1 here

#### Gender Differences in Reputation Enhancement

A between-subjects MANOVA on the 17 dependent variables of the RES revealed a main effect of gender [F (17, 1344) = 21.29, p < .001, partial  $\eta^2 = .21$ ]. The univariate F-tests and observed means for the main effect of gender, shown in Table 2, demonstrated 16 of the 17 reputation enhancement variables differed at the .003 level. Females reported significantly higher scores compared to males on eight of the reputation enhancement variables, namely friend, selfperceived social conformity norms, evaluative reactions to others social conformity norms, conforming self-perception, conforming ideal public self, activity self-description, activity ideal private self, and brag about positive things to others. Males, on the other hand, obtained significantly higher scores than females on eight of the reputation enhancement variables, namely self-perceived social deviance norms, evaluative reactions to others social deviance, nonconforming self-perception, nonconforming ideal public self, power/evaluation self-description, power/evaluation ideal private self, status, and face. Rebel was the only reputation enhancement variable not reaching significance. In general, females strive for a more socially acceptable reputation compared to their male peers who seek a non conforming reputation.

#### Table 2 here

Given the findings from our initial investigation, which revealed significant differences in the delinquent activities and reputational orientations of males compared to females, a more stringent examination of females was undertaken using a matched sample of at risk and not at risk adolescent females.

# Study Two – Self-reported delinquency and reputational orientations of adolescent at risk and not at risk females

# Method

#### **Participants**

In this second investigation, 31 females from the Study One dataset identified as "at risk" of adverse outcomes (mean age 15.1, SD = 1.40) were pair wise age matched (within five months)

with 31 not at risk females (mean age 15.1, SD = 1.41). Individuals were designated as at risk if they were incarcerated (n = 19) or met the Western Australian Legislative Assembly (1992) checklist indicators (n = 12 mainstream school adolescents). The checklist comprises 12 behavioural indicators and 12 situational indicators and if an individual has at least three of each, he/she is designated as at risk. The stringent individual matching on age has the effect of decreasing the error variance and precluding the matching variables from becoming competing causal factors of any effects (Kirk, 1995).

The settings, measures, and procedures for Study Two were identical to that of the first study because the sample was drawn from this larger dataset.

#### Results

As in the first investigation two separate MANOVAs were conducted to establish if significant differences existed between at risk females and their matched not at risk counterparts. Univariate *F*-values were again determined to be significant at Bonferroni adjusted alpha levels of .007 and .003 for the self-report delinquency and reputation enhancement variables, respectively. Effect sizes and power estimates are reported.

#### Self-Reported Delinquency and at Risk Status

The first between-subjects MANOVA was performed on at risk status and the seven dependent variables associated with delinquent activities. There was a multivariate main effect of at risk status [F(7, 54) = 28.25, p < .001, partial  $\eta^2 = .78$ ]. The follow-up univariate F-tests (see Table 3) revealed significant differences for six of the seven dependent variables, with mean scores showing that at risk females reported higher involvement in physical aggression, stealing offences, soft drug use, vehicle-related offences, property offences, and hard drug use compared to their matched not at risk female counterparts. There was no main effect, however, for school misdemeanours.

Table 3 here

#### **Reputation Enhancement and at Risk Status**

The results of the second MANOVA conducted on each of the 17 RES variables revealed a significant multivariate main effect of at risk status [F(17, 44) = 4.29, p < .001, partial  $\eta^2 = .62$ ]. The univariate *F*-tests (shown in Table 4) indicated significant main effects for four of the 17 reputation variables, with mean scores (also shown in Table 4) indicating that at risk females reported higher scores than not at risk females on self-perceived social deviance norms, nonconforming self-perception, and non conforming ideal public self, For brag, the opposite was true with not at risk females scoring more highly than at risk females.

Table 4 here

In summary, the first investigation revealed that at risk adolescent males reported more involvement in delinquency and also strove to attain a more non-conforming reputation compared to females. Although similar differences were evident in the second investigation when at risk and not at risk adolescent females were compared, levels of involvement in school misdemeanours were found to be similar. Qualitative research by Martin (1997) has suggested that at risk females deliberately use more covert forms of school misdemeanours (compared to males), which restrain them from engaging in more overt forms of behaviour (e.g., swearing, fighting) for fear of damaging their reputations among peers. To examine whether this is unique to at risk females, a third investigation comparing at risk males and not at risk males was conducted.

# Study Three: Self-reported delinquency and reputational orientations of at risk and not at risk male adolescents

#### Method

# **Participants**

Ninety one males were identified from the Study One dataset as "at risk" of adverse outcomes (mean age 15.38, SD = 1.42) and pair wise age matched (within five months) with 91 not at risk males (mean age 15.11 SD = 1.52). As in the previous investigation, individuals were designated as at risk if they were incarcerated (n = 66) or met the Western Australian Legislative Assembly (1992) checklist indicators (n = 25 mainstream school adolescents).

The settings, measures, and procedures for Study Three were identical to that of the first two studies because the sample for this study was drawn from the larger dataset.

#### Results

#### Self-Reported Delinquency and at Risk Status

The first between-subjects MANOVA performed on delinquent activities revealed a multivariate main effect of at risk status [F(7, 174) = 98.42, p < .001, partial  $\eta^2 = .80$ ]. The follow-up univariate *F*-tests (using Bonferroni adjusted alpha levels of .007) revealed significant differences (see Table 5) for physical aggression, stealing offences, school misdemeanours, soft drug use, vehicle-related offences, abuse of property offences, and hard drug use. Mean scores also shown in Table 5 revealed that at risk males reported higher involvement than not at risk males in physical aggression, stealing offences, soft drug use, vehicle-related offences, school misdemeanours, soft drug use, vehicle-related males in physical aggression, stealing offences, school misdemeanours, soft drug use, vehicle-related offences, and hard drug use.

Table 5 here

#### **Reputation Enhancement and at Risk Status**

The second MANOVA on each of the 17 RES variables revealed a significant multivariate main effect of at risk status [F(17, 164) = 10.50, p < .001, partial  $\eta^2 = .52$ ]. The univariate F-tests for the main effect of at risk status (using Bonferroni adjusted alpha levels of .003) shown in Table 6 indicated significant effects for six of the 17 reputation variables. The mean scores also shown in Table 6 revealed that at risk males reported higher scores than not at risk males on self-perceived social deviance norms, nonconforming self-perception, and non conforming ideal public self. However, the opposite was true for activity self-description, activity ideal private self and brag variables, with not at risk males scoring more highly than the at risk males.

Table 6 here

To identify linear combinations of variables with the reputation and delinquency sets a Canonical Correlation Analysis (CCA) was performed. In this case the criterion set comprised the scores for the seven delinquency subscales of the ASDS, while the predictor set included the 17 reputation enhancement subscales. Assessments of conformity to underlying CCA assumptions produced satisfactory results.

The CCA indicated a significant relationship between the two variable sets with all canonical variates included, Wilks' Lambda = .188, F(119, 649) = 1.596, p < .001, but not with the first canonical correlation removed, Wilks' Lambda = .423, F(96, 568) = .969, p = .565. The effect size for the first correlation ( $r_c$ ) was large, with ( $r_c$ ) = .75 ( $r_c^2 = .56$ ). Standardised function coefficients, structure coefficients, and percentages of variance corresponding to the single significant effect obtained for the two variable sets are presented in Table 7.

Table 7 here

As indicated in Table 7 the multivariate relationship between the two sets was defined primarily by the reputation enhancement variables (Nconsp, Face, Nconips, Rebel, Spsd, Activips and Activsd) and by scores on the self-report delinquency subscales (Stealing, School Misdemenours, Vehicle Related Offences, Abuse of Property, Physical Aggression and Hard Drugs Related Offences). Soft drug use (marijuana, alcohol, cigarettes) made the least contribution to the overall relationship.

Specifically, Nconsp (a negative relationship [-.65] indicates youth at risk want to be seen as non conforming by their friends); Face (-.61 indicates youth at risk do not communicate positive things to anyone); Nconips (-.59 indicates youth at risk wish to be seen as non conforming); Rebel (-.37 indicates youth at risk do not communicate negative events to parents but they do so to other adults); Spsd (-.31 indicates youth at risk admire others involved in socially deviant activities); Activips (a positive relationship [+.73] indicates youth at risk like to be perceived as delinquent); and Activsd ( +.59 indicates youth at risk describe themselves as delinquent). It should be noted that in comparison to the other reputation enhancement subscales listed above, for the Activips and Activsd subscales a positive relationship is shown because lower scores indicate non conformity (i.e., youth at risk scored lower on these).

#### Discussion

Maxfield, Weiler and Widom (2000) and Moffitt and Caspi (2001) make the point that official records tend to underestimate juvenile delinquency since many young persons who commit crimes never enter the juvenile justice system. This may be particularly true of females, who on the face of it commit fewer acts of delinquency than males. In our research, data were gathered using self-report measures. According to Dryfoos (1990), Dunford and Elliott (1982), and West and Farrington (1977) self-report data demonstrate that almost 50% of young persons engage in delinquent activities at some time during their adolescent years and as much as 98% of adolescent delinquent behaviour is not reported in official data. That adolescents at risk (particularly females) have limited official data available pertaining to their delinquent status, the use of self-report measures may be highly beneficial. Indeed, Blackburn (1993), Farrington (1986) and Mak (1993) have all shown that when individuals anonymously record their involvement in delinquent activities, many undetected crimes are revealed.

In our initial investigation we sought to determine whether females were different to males in terms of their delinquent activities and reputational orientations. This was found to be the case, with males scoring significantly higher than females on all seven delinquency variables.

From our analysis of the reputation enhancement variables it appears that in line with their higher involvement in delinquency, males also seek to attain a more nonconforming reputation compared to their female counterparts (see Carroll 1995; Carroll, Houghton, et al. 1999, Carroll, Baglioni, et al., 1999, Carroll et al., 2003). Specifically, males more than females admired deviant activities, admired others who were involved in delinquent activities, perceived themselves as nonconforming, ideally wished to be perceived by others as nonconforming, described themselves as leaders, tough, strong, rule breakers, and nasty, and generally communicated more about delinquent activities with others, and less with parents and others about positive events.

According to Emler and Reicher (1995), reputation enhancement theory emphasises the importance of an audience if an individual wishes to attain a reputation. It also asserts that much of adolescent behaviour is motivated by the desire to present the self to the peer community in a particular way and is a means to impress peers and gain their approval (Agnew, 1991). Although girls' social groups or the approval of girlfriends are influential in delinquent activities

(Kerpelman & Adcock-Smith, 2005), whether or not reputation enhancement applies to delinquent females, even though it is known that these individuals are less likely to adopt the oppositional stance that promotes nonconforming reputation enhancement and delinquent behaviour (Emler & Reicher, 1995), has to date not been tested. Although the research by Kerpelman and Adcock-Smith (2005) demonstrated reputation enhancement to be a strong and direct predictor of delinquent activities and "a useful perspective for understanding female adolescents' delinquent behaviour" (p. 192), only limited reporting was presented. Consequently, the reputational orientations of delinquent females remained unknown.

We thought that it was important to first establish male and female gender differences in delinquency and reputational orientations, and after demonstrating this we conducted an examination of at risk and not at risk female's delinquency and reputational orientations using a closely age matched sample of 31 pairs. Significant differences in six of the seven self-report delinquency variables subsequently emerged with at risk females scoring higher than not at risk females in all six categories. These data support figures showing some females are involved in serious offences such as assault (U.S. Department of Justice, 2006), violent behaviours (Moffitt & Caspi, 2001) and antisocial activities (Office of Juvenile Justice and Delinquency Prevention, 2007; Statistics Canada, 2007). The only delinquency category where no significant difference was detected was school misdemeanours, which is similar to the findings of Houghton and Carroll's (2002) 3-year longitudinal study with Western Australian high school students. Further support for this finding comes from an interview based study (Martin, 1997) which revealed that at risk adolescent females engage in more covert forms of misbehaviour in school and deliberately avoid overt acting out behaviours for fear of damaging their reputations. The covert nature of school misdemenours may therefore be the main reason that no differences were detected between our matched at risk and not at risk females. However, given that the presence of an audience is critical for establishing and maintaining a delinquent reputation and that involvement in delinquent activities is a means to an end for this (see Carroll et al., 2003; Emler & Reicher, 1995) the question arises as to whether at risk females strive to attain different reputational orientations compared to their not at risk female peers?

To date, no research has attempted to answer this. Reputation enhancement theory clearly shows that delinquents *per se* express admiration for their involvement in delinquent activities primarily because they wish to establish an identity within their social group (Carroll, Houghton, et al., 1999). From our investigation using a matched sample, at risk females appear no different to their (Study One) at risk male counterparts. That is, they expressed an admiration of others involved in delinquency. Moreover, in terms of social identity, at risk females reported that their friends did not see them as socially conforming, but rather as a "bad kid", "getting into trouble", "breaking the rules" and as "being tough". These females also expressed their desire to be seen in this way by friends. Finally, at risk females were less willing than not at risk females to communicate or "brag" about their prosocial behaviour to friends, parents and/or other adults.

In comparison to the females in the initial large scale investigation, at risk females strove to establish a deviant and nonconforming reputation similar to that of their (Study One) male at risk counterparts. Furthermore, they committed significantly more delinquent activities than their not at risk female peers to attain this desired reputation. In comparison, the not at risk females appeared to seek a more conforming reputation and to achieve this they communicated positive things to others. With the exception of school misdemeanours these not at risk females also committed significantly fewer delinquent activities. It has been suggested that this is because at risk girls deliberately avoid overt types of inappropriate behaviours in school for fear of damaging their reputation (Martin, 1997). Whether this is unique to at risk girls or is also characteristic of their at risk male counterparts remains unknown, however.

To address this a third investigation was undertaken with a matched sample of at risk and not at risk male adolescents. Findings revealed that this was not the same with at risk males who reported significantly more involvement in <u>all</u> delinquent activities, including school misdemenours. It may be therefore that girls are indeed more covert than their male counterparts in school contexts. Supportive of this are Little (2005), Merrett and Wheldall (1988), and Houghton, Wheldall, and Merrett (1988) whose data showed that males are identified by teachers as more "overtly" troublesome than females. However, both at risk males and at risk females sought a similar kind of non-conforming reputation through their self-perceived social deviance norms, nonconforming self-perception, and non-conforming ideal public self. The question therefore, is how do at risk females communicate their intentions to an audience to attain their desired reputation if their activities are more covert in nature? It may be that a physical audience is not necessary as posited by reputation enhancement theory. Research by Houghton, Nathan, Tan, and Carroll (2007) and Khan and Houghton (2007) points to the use of various forms of electronic communication, including mobile phones and the internet as mechanisms that at risk females frequently utilise to establish and maintain their reputations. Thus, these female adolescents may be using a cyber audience with whom they communicate information electronically, about their school misdemenours.

A Canonical Correlation Analysis (CCA) was then performed to identify linear combinations of variables with the reputation and delinquency sets. With the exception of soft drug use, all other delinquent activities contributed strongly to the overall relationship. It may be that soft drug related offences involving marijuana, alcohol and cigarettes are relatively common among young persons, including those <u>not</u> at risk, and are therefore not particularly commensurate with a delinquent identity. Recent evidence from large scale surveys of Australian secondary school students showing that approximately: 90% of 12 to 17 year olds have drunk alcohol and by mid adolescence approximately 33% report weekly use of alcohol; 20% report lifetime use of marijuana; compared to 4% reporting more hard drug use such as amphetamines would appear to

support this interpretation (see Frye, Dawe, Harnett, Kowalenko, & Harlen, 2008; White & Hayman, 2006a; 2006b).

With regard to reputation enhancement the findings from the CCA add further support to the already extensive evidence showing that reputation enhancement theory is a valid explanation for at risk young person's involvement in delinquent activities (e.g., Carroll, Baglioni et al., 1999; Carroll, Green et al., 2003; Carroll, Hattie et al., 2001; Carroll, Houghton et al., 1999). That is, at risk individuals strive to attain a specific delinquent social identity and in doing so describe themselves as non conforming, ideally wish to be seen by others as non conforming, admire others who are involved in socially deviant activities, do not communicate positive events to anyone, but on the other hand communicate negative events to adults other than their parents.

In conclusion, the research reported here appears to be the first to examine the differences in self-reported rates of delinquency and reputational orientations of at risk and not at risk females. In doing so it has added to our previous extensive research which clearly established the importance of a reputation for the social identity of young people. That at risk females have a reputational profile characterised by a desire to appear as nonconforming in public and indulge in a range of delinquent activities to attain this is clearly demonstrated. However, failure to understand the covert, yet potentially more powerful role that mechanisms might play in establishing and maintaining reputations within and between at risk and not at risk adolescent females in school contexts means that the development and implementation of appropriate interventions will be restricted.

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Univariate F Statistics, Observed Means, and Standard Deviations for the Self-Reported Delinquency Variables (df = 5, 1435) with Gender (Male v. Female) as the Independent Variable

Dependent variable	Mean square	F-value	p-	p- Partial ŋ2		Ma	Male		le
	1		value	estimate	М	SD	М	SD	
Abuse of property	30.94	40.77	<.001	.03	1.00	1.65	1.06	1.31	.64
Hard drug-related offences	34.87	49.01	<.001	.03	1.00	1.51	1.09	1.15	.54
Physical aggression	108.95	104.49	<.001	.07	1.00	1.86	1.29	1.24	.68
Stealing offences	76.24	69.47	<.001	.05	1.00	1.83	1.32	1.30	.73
School misdemeanours	60.10	36.59	<.001	.03	1.00	3.39	1.36	2.95	1.24
Soft drug use offences	33.37	18.12	<.001	.01	.99	2.43	1.54	2.04	1.31
Vehicle-related offences	61.96	76.14	<.001	.05	1.00	1.68	1.20	1.20	.52

p <.007

Univariate F Statistics, Observed Means, and Standard Deviations for the Reputation Enhancement Variables (df = 1, 1360) with Gender (Male v. Female) as the Independent Variable

Dependent Variable	Mean <i>F</i> - <i>p</i> -		Partial	Partial Power $n^2$		Male		Female	
_ · · ·	square	value	value	η	estimate	М	SD	М	SD
Friend	36.65	47.64	<.001	.03	1.00	4.27	.94	4.65	.82
Self-perceived social deviance norms	26.17	29.41	<.001	.02	1.00	2.09	1.13	1.76	.74
Self-perceived social conformity norms	84.39	84.24	<.001	.06	1.00	3.18	1.07	3.74	.93
Evaluative reactions to others social deviance	22.02	17.22	<.001	.01	.99	3.03	1.23	2.74	1.05
Evaluative reactions to others social conformity	90.76	111.06	<.001	.08	1.00	3.08	.99	3.67	.82
Nonconforming self-perception	108.97	99.04	<.001	.07	1.00	2.55	1.25	1.90	.85
Conforming self-perception	21.16	32.22	<.001	.02	1.00	4.23	.92	4.52	.69
Nonconforming ideal public self	72.84	71.50	<.001	.05	1.00	2.27	1.23	1.75	.77
Conforming ideal public self	21.23	26.37	<.001	.02	1.00	4.59	1.04	4.89	.74
Activity self-description	17.53	25.82	<.001	.02	1.00	4.37	.93	4.64	.73
Power/evaluation self-description	29.20	46.48	<.001	.03	1.00	3.98	.84	3.65	.74
Activity ideal private self	21.60	32.84	<.001	.02	1.00	5.07	.95	5.38	.66
Power/evaluation ideal private self	7.65	12.39	<.001	.01	.94	4.94	.89	4.80	.69
Brag	1.07	12.77	<.001	.01	.95	.31	.29	.38	.29
Status	1.69	15.77	<.001	.01	.98	.43	.34	.36	.32
Face	1.40	39.69	<.001	.03	1.00	.16	.23	.09	.14
Rebel	.13	5.49	<.019	.00	.65	.11	.16	.08	.15

Note. Means within rows having no common subscripts differ at p < .003

Univariate F Statistics, Observed Means, and Standard Deviations for the Self-Reported Delinquency Variables (df = 1, 60) with at risk status (at risk v. Matched not at risk) as the Independent Variable

Dependent variable	Mean square	F-	<i>p</i> -	Partial n <sup>2</sup>	Power estimate	Matched	At Risk	Matched not at Risk		
	1	value	value	·		М	SD	М	SD	
Abuse of property	35.85	33.40	<.001	.36	1.00	2.75	1.44	1.23	.26	
Hard drug-related offences	39.36	34.20	<.001	.36	1.00	2.62	1.51	1.02	.09	
Physical aggression	50.58	31.34	<.001	.34	1.00	2.98	1.73	1.17	.48	
Stealing offences	120.40	153.23	<.001	.72	1.00	3.92	1.24	1.13	.19	
School misdemeanours	9.31	4.52	<.04	.07	.55	3.84	1.55	3.06	1.31	
Soft drug use offences	112.19	87.4	<.001	.59	1.00	4.71	1.13	2.02	1.13	
Vehicle-related offences	34.79	37.58	<.001	.39	1.00	2.61	1.35	1.11	1.64	

Univariate F statistics, observed means, and standard deviations for the reputation enhancement variables (df = 1, 180) with at risk status (at risk v. Matched not at risk) as the Independent Variable

Dependent variable	Mean	<i>F</i> -	р-	Partial	Power	At risk		Matched not at risk	
	square	value	value	$\eta^2$	estimate -	М	SD	М	SD
Friend	.003	.004	.95	.000	.05	4.62	.95	4.64	.88
Self-perceived social deviance norms	14.84	20.16	<.001	.25	.99	2.63	1.07	1.65	.56
Self-perceived social conformity norms	.006	.007	.93	.001	.05	3.73	1.00	3.71	.84
Evaluative reactions to others social deviance	5.47	5.19	.026	.08	.61	3.11	1.11	2.52	.94
Evaluative reactions to others social conformity	.32	.41	.52	.007	.00	3.75	.97	3.61	.79
Nonconforming self-perception	53.22	62.05	<.001	.51	1.00	3.58	1.18	1.73	.58
Conforming self-perception	.05	.07	.78	.001	.06	4.41	.97	4.46	.63
Nonconforming ideal public self	10.02	10.27	.002	.15	.88	2.50	1.17	1.70	.77
Conforming ideal public self	.76	.94	.34	.02	.16	4.50	.99	4.72	.79
Activity self-description	.75	.96	.33	.02	.16	4.25	.98	4.47	.76
Power/evaluation self-description	.15	.19	.66	.003	.07	3.69	.99	3.60	.72
Activity ideal private self	.78	1.49	.23	.02	.22	5.23	.89	5.45	.51
Power/evaluation ideal private self	.006	.01	.91	.001	.05	4.60	.80	4.58	.68
Brag	1.05	11.87	<.002	.17	.92	.15	.23	.41	.35
Status	.08	.79	.38	.01	.14	.48	.33	.40	.33
Face	.05	1.85	.18	.03	.27	.13	.18	.08	.13
Rebel	.02	.83	.37	.01	.15	.12	.16	.09	.12

Univariate F Statistics, Observed Means, and Standard Deviations for the Self-Reported Delinquency Variables (df =1, 180) with at risk status (at risk v. Matched not at risk) as the Independent Variable

Dependent variable	Mean	$\begin{array}{cccc} \text{Mean} & F & p & \\ \text{square} & \text{value} & \text{value} & \end{array} \begin{array}{c} \text{Power} & \\ \text{Partial } \eta^2 & \\ \text{estimate} & \\ \end{array}$	Power	At r	risk	Matched not at risk			
Dependent variable	square		value	i urtiur ij	estimate -	М	SD	М	SD
Abuse of property	133.96	95.03	<.001	.35	1.00	3.01	1.60	1.29	.52
Hard drug-related offences	169.04	114.08	<.001	.39	1.00	3.01	1.66	1.17	.44
Physical aggression	213.28	126.23	<.001	.41	1.00	3.61	1.68	1.45	.75
Stealing offences	430.92	526.89	<.001	.75	1.00	4.35	1.19	1.27	.47
School misdemeanours	34.40	18.15	<.001	.09	.94	4.20	1.45	3.33	1.30
Soft drug use offences	299.96	221.04	<.001	.55	1.00	4.60	1.12	2.03	1.21
Vehicle-related offences	219.75	153.80	<.001	.46	1.00	3.51	1.57	1.33	.61

Univariate F statistics, observed means, and standard deviations for the reputation enhancement variables (df = 1, 180) with at risk status (at risk vs. Matched not at risk) as the Independent Variable

Dependent variable	Mean	F-	р-	Partial	Power	At risk		Matched not at risk	
Dependent variable	square	value	value	$\eta^2$	estimate –	М	SD	М	SD
Friend	1.75	1.34	.25	.007	.03	3.99	1.24	4.18	1.04
Self-perceived social deviance norms	33.60	22.05	<.001	.10	.05	2.76	1.50	1.90	.90
Self-perceived social conformity norms	2.19	1.59	.21	.009	.04	2.92	1.23	3.14	1.11
Evaluative reactions to others social deviance	7.15	4.47	.04	.02	.19	3.32	1.39	2.93	1.12
Evaluative reactions to others social conformity	.30	.27	.60	.002	.01	3.09	1.11	3.01	.98
Nonconforming self-perception	185.08	152.71	<.001	.46	1.00	4.15	1.27	2.14	.90
Conforming self-perception	.55	.46	.50	.003	.01	4.13	1.16	4.24	1.02
Nonconforming ideal public self	61.46	32.14	<.001	.15	.10	3.16	1.72	2.00	.92
Conforming ideal public self	1.62	1.06	.31	.006	.03	4.36	1.32	4.55	1.15
Activity self-description	45.97	46.98	<.001	.21	1.00	3.55	1.10	4.56	.87
Power/evaluation self-description	3.85	4.60	.03	.03	. 20	4.15	.99	3.85	.84
Activity ideal private self	25.33	22.49	<.001	.11	.96	4.44	1.26	5.19	.81
Power/evaluation ideal private self	1.96	1.89	.17	.01	.05	4.73	1.14	4.93	.88
Brag	1.50	19.88	<.001	.10	.93	.17	.23	.35	.30
Status	.36	2.97	.09	.02	.10	.53	.37	.44	.33
Face	.73	9.18	<.003	.05	.51	.28	.32	.16	.24
Rebel	.001	.02	.89	.00	.00	.12	.20	.12	.18

Variable-Statistic	Function Coefficients					
	Function	Structure				
Friend	+.07	+.19				
Spsc	+.16	+.26				
Opsc	10	+.14				
Spsd	+.08	31				
Opsd	.00	23				
Consp	+.17	+.05				
Nconsp	49	65				
Conips	40	03				
Nconips	01	59				
Activsd	+.02	+.59				
Powersd	+.02	23				
Activips	+.40	+.73				
Powerips	07	+.16				
Brag	09	.00				
Status	+.05	13				
Face	36	61				
Rebel	35	37				
% Variance		56.78%				
Steal	04	63				
misdemeanour	26	57				
Softdrug	.42	20				
Vehicle	44	81				
Property	57	89				
Aggress	+.08	70				
Harddrug	16	70				
% Variance		14.93%				
Canonical Correlation (rc)		.75 $(r_{\rm c}^2 = .56)$				

Table 7Outcomes of Canonical Correlation Analysis