

# ***THE IMPORTANCE OF CARS AND DRIVING TO ADOLESCENT MALES: VEHICLE THEFT, TRAFFIC OFFENCES AND GENDER***

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Despite a considerable body of evidence detailing the overwhelming “maleness” of traffic offence behaviour and clear sex differences in the risky road use behaviour of young drivers, traffic psychology has paid scant attention to the issue of gender and the relationship between young men, cars and gender identity. Motor vehicle theft is a major juvenile offence both nationally and internationally and a particular example of a male dominated road use behaviour. Statistics suggest vehicle theft is primarily conducted by 16 year old males and is associated with approximately 40 fatalities per year nationally. This paper reports on two studies examining vehicle theft offenders, driving and gender identity. Study One (N = 4,529), a longitudinal study, examined the prevalence of vehicle theft in a representative adolescent cohort and their subsequent novice driver offence history. Results indicated that adolescent males were more likely than adolescent females to report vehicle theft. Adolescent males were also more likely to incur Drink Driving and Dangerous Driving offences as novice drivers. Study Two compared the gender identities of adolescent offenders’ (N = 122) and non-offenders (N = 155). A new scale, the Doing Masculinity Composite Scale was developed to identify the specific behaviours adolescent males perceived as necessary to “do masculinity”. Overall adolescent male offenders and non-offenders were similar in the behaviours they endorsed as “doing masculinity”. Importantly both groups of adolescent males endorsed having a car and being able to drive as core masculine defining behaviours. Results indicate that adolescent males who engage in vehicle theft continue their risky driving behaviour into the novice driver period. It is also suggested that cars and driving hold particular importance to young males just about to enter the driving system. It is suggested that the gendered associations between adolescent males and cars is an overlooked area in relation to licensure and road safety education.

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## INTRODUCTION

### *The “Maleness” of Crashes and Traffic Offence Behaviour*

Within the area of novice driver research, the overrepresentation of young males in road crash statistics has become almost a given. Crash statistics from Queensland are indicative of this trend across industrialised countries. In 2001, 42 young men aged 17 – 20 years were killed on Queensland roads representing 18% of the year’s total fatalities. Young men of this age however represented only 2.8% of Queensland’s population (Australian Bureau of Statistics, 2003). Such an overrepresentation is consistent over time and annual trends in Queensland fatalities from 1990 – 1999 indicate that on average, the ratio of male to female fatalities in the 17 –24 year age group was 3:1. This ratio increases substantially if injuries are considered.

Traffic offence data also reflects a predominance of young males. In 2003 – 04, there was a total 15,102 traffic offences recorded in Queensland committed by 15 – 24 year old drivers. Eighty-seven percent of these were committed by young males (Queensland Police Service, 2002b). This over-representation of young males in traffic offence behaviour is again consistent over time (Queensland Police Service, 1999, 2000, 2001, 2002b, 2003, 2004).

### *Adolescent Male Driving*

Much of the research examining novice drivers has compared males and females and reported that young males in particular are associated with a range of risky driving behaviours posing an increased crash risk. Many studies detail these risky driving behaviours. Those described below are indicative of the general findings.

Harré, Field and Kirkwood (1996) in a New Zealand study of novice drivers (n = 636; mean age 15.86 years) noted that young males were more likely to drive and to drive more frequently than females. Harré et al (1996) found that young males reported driving faster and that while rates for unsafe driving as measured by their propensity to speed, not wear seat belts and break traffic regulations were low for both males and females, the subgroup that did engage in such behaviours was more likely to be male.

Catchpole MacDonald and Bowland (1994) in phone interviews with young drivers (N = 800: age range 16 to 29 years) revealed that young males evidenced riskier driving behaviours in comparison to young females and that risk equated with speed. Males reported speeding more often, enjoying speeding and they had a faster driving style. Young males were also more likely to report crash involvement. Catchpole et al also reported that adolescent males were more likely to drive more than adolescent females, giving them more time on the road. Ginpil and Attewell (1994) in comparing fatal crashes involving male and female drivers found that intentional risk taking (e.g. drink driving and speeding) was more prominent in fatal crashes caused by male drivers and that this was consistent with international studies.

### *Beliefs and Attitudes of Young Male Drivers*

As well as specific driving behaviours, researchers have identified specific beliefs and attitudes novice male drivers bring to the driving situation. In the above mentioned study by Harré et al (1996), the researchers developed a Dangerous Thought Patterns Scale in relation to driving. Males consistently reported more dangerous thought patterns in relation to anti-authoritarian attitudes (rebellious against safe adult views of driving); impulsiveness (making choices on the road without thought of the consequences); driving to meet the unsafe driving expectations of friends; and what they termed “macho” beliefs which reflected young male drivers’ belief in their superior driving skills.

MacDonald (1994) in a review on young driver crashes similarly reported that young males were more likely to overrate their driving ability when compared to young females. Such beliefs lead them to take greater risks on the road. Gregersen (1995) in relation to Swedish

novice drivers again noted young males' over-estimation of their driving skills, though in this instance compared to older drivers. Over-estimation of skill has also been reported with Australian young male drivers. In the above mentioned study by Catchpole et al (1994) adolescent males were associated with superior driving beliefs in comparison to older drivers and females.

Driving beliefs have also been examined by Palamara and Stevenson (2000) who surveyed novice drivers (N = 1,277; age 17 – 18 years) in Metropolitan Perth. Males were also more likely than females to report that speeding would add to their driving enjoyment, that they would not be caught for speeding, and that their speeding would not lead to a crash. Similarly to Catchpole et al (1994), Gregersen (1995) and MacDonald (1994), Palamara and Stevenson reported that in relation to driving style and skill level, males reported being more confident and adventurous on the road.

In summary then research has documented an overrepresentation of young males in crashes and traffic offences and this has been associated with a range of risky driving behaviours, attitudes and beliefs.

*Motor Vehicle Theft: A particular type of road use behaviour*

An offence not usually considered in traffic research but one with considerable road safety implications is opportunistic vehicle theft. Across Australia during 2001 - 2002, 124,600 vehicle thefts were recorded (National Motor Vehicle Theft Reduction Council, 2001). Approximately four of every five thefts were opportunistic (National Motor Vehicle Theft Reduction Council, 2001) (that is for short-term use rather than professional car thieves) and the majority of these were committed by adolescent males aged 14 – 19 years. A number of agencies have noted that this offence has a peak prevalence at 16 years of age, just before legal access to driving is allowed (Department of Communities, 2001; Devery, 1993; National Motor Vehicle Theft Reduction Council, 2001; Queensland Police Service, 2002a). Nationally it has been estimated that opportunistic vehicle theft is associated with approximately 40 fatalities per year (National Motor Vehicle Theft Reduction Council, 2003b). The estimated annual cost of this offence to the insurance industry alone is one billion dollars (National Motor Vehicle Theft Reduction Council, 2001).

Similar trends concerning the prevalence of vehicle theft and the overrepresentation of adolescent males have been reported in Canada (Fleming, 1997; Statistics Canada, 2003), the United Kingdom (Light, Nee, & Ingham, 1993; Nee, 1993; Spencer, 1992) and the United States (Arizona Automobile Theft Authority, 2003; Federal Bureau of Investigation, 2000).

Table 1

*Rate of vehicle theft across Australian states and territories for period 1 July 2000 – 30 June 2001*

	NSW	Victoria	QLD	SA	WA	Tasmania	ACT	NT
Thefts	53,135	37,376	17,749	12,438	10,829	3,895	2,710	1,012
Recovery Rates	77%	82%	78%	88%	79%	89%	79%	86%

Note. National Motor Vehicle Theft Reduction Council Annual Report 2001.

Based on the considerable research concerning the over-representation of young males in crash and traffic involvement and vehicle theft, Study One sought to investigate “maleness” in relation to vehicle theft and traffic offence behaviour in a large cohort of Queensland adolescent high school students. Using data initially gathered by Sheehan, Najman, Siskind, Schonfeld and Smithhurst (1990a) Study One posed two questions: are adolescent males more

likely than adolescent females to engage in vehicle theft and are adolescent male drivers more likely than females to incur a traffic offence as a novice driver? Specifically it is hypothesised that adolescent males will be more likely than adolescent females to engage in vehicle theft (H<sub>1</sub>) and incur a traffic offence as a novice driver (H<sub>2</sub>).

## **METHOD STUDY ONE**

### *Participants*

In 1988 forty-one high schools were randomly selected across the state of Queensland and stratified to ensure equal representation of metropolitan, provincial and rural youth. A total of 5,000 students were approached with 4,545 responding (90.9% response rate) however only 4,529 were included in the data analyses due to missing data items. The mean age of students was 14.8 years (SD = .68) with a range of 13 - 18 years. The sample included 2,289 males (50.5%) and 2,237 females (49.4%) with 3 of unknown sex.

### *Materials*

Students completed a questionnaire consisting of 28 items which assessed social demographics and delinquent behaviour. Social demographics included identifying information to facilitate tracking of participants' subsequent novice driver traffic offences. Delinquent behaviours were assessed using Section H of the Bachman, Johnston and O'Malley Delinquency Scale (Bachman, Johnston, & O'Malley, 1978). Section H of the scale asked students to report on a range of delinquent behaviours including interpersonal aggression, vandalism and theft. One item however specifically asked participants about vehicle theft and if they had "taken a vehicle that did not belong to family member in the previous year". Responses were either 1 "Yes" or 2 "No".

### *Procedure*

The survey was delivered to students with the assistance of staff from the Queensland Department of Education. Permission for the research was gained through the Education Department, individual schools, parents and custodians. In order to trace future traffic records, identifying data was obtained. Students were asked to provide name, address, sex, birth-date and birthplace. This information was used to track participants through the linkages with the Queensland Transport crash database ten years later. Ethical clearance 2072/1H was obtained from the Queensland University of Technology.

## **RESULTS STUDY ONE**

### *Coding of Traffic Offences*

Originally, traffic offence data from Queensland Transport for Drink Driving and Crash Involvement was recorded as the age of the participant and for Speeding the year of the offence was provided. These variables were initially recoded as frequencies and then as categorical variables for ease of analysis. As the number of participants with 3 or more crashes (n = 2) or 3 or 4 drink driving charges (n= 22) was relatively small, these variables were recoded into three levels for preliminary analyses: no offence, one offence, two or more. For subsequent analyses due to small cell numbers, these offences were further recoded into dichotomous variables. For Dangerous Driving offences only first offence data was available. This was coded as a dichotomous categorical variable.

### *Sex of Participant and Vehicle Theft*

In order to examine the relationship between vehicle theft and "maleness", the analysis specifically examined Item 10 of the Bachman, Johnston and O'Malley Delinquency Scale (1978) concerning taking "a car that belonged to someone other than a family member without the permission of that owner" in the previous year. To examine the relationship

between this item and sex of participant, a chi-square analysis was conducted,  $\chi^2(1, N = 4,501) = 36.66, p < .001$ . Results indicated that while only a minority of students stole a car (6.8% of males,  $n = 154$ ; 2.9% of females,  $n = 65$ ).males were more likely to report involvement in taking a car without permission in the previous year than females.

#### *Sex of Participant and Traffic Offence Involvement*

A series of chi-square analyses were conducted to examine the relationships between the sex of participant and their subsequent traffic offence involvement. Table 1 contains these results which indicated again that while only a minority of participants incurred an offence, males were more likely than females to have a Drink Driving ( 4.2% of males,  $n = 157$ ; 3.1% females,  $n = 115$ ) or Dangerous Driving offence (0.3% of males,  $n = 12$ ; 0.1% of females,  $n = 2$ ).

Table 2

#### *Chi-square Analyses Sex of Participant and Traffic Offence Involvement*

Traffic Offence	Chi-Square	N	df	Significance
Drink Driving	5.77	3731	1	.016*
Speeding	0.25	3731	1	.615
Dangerous Driving	6.25	3609	1	.012*
Crash Involvement	0.69	3731	1	.408

\*  $p < .05$  level

The results of Study One, along with the research studies discussed above, suggest that a minority of young males engage in considerable risk to have and drive a car. A willingness to engage in risky driving is also evident in that minority of young males who incurred a traffic offence. What then is the association between such young males, risky driving and cars? Do such young men create a sense of gender identity through their engagement with cars and risky driving? Study Two sought to examine the relationship between adolescent males just about to enter the driving system and their possible gendered associations with cars and driving through the use of the Doing Masculinity Composite Scale.

## **STUDY TWO**

The Doing Masculinity Composite Scale (DMCS) was initially developed from qualitative interviews with adolescent males with histories of vehicle theft. It sought to identify what these young men “do” in order to create a masculine gender identity. Do cars and driving figure in the gender identity? Are some young males willing to steal cars to access the driving experience in order to “do masculinity”? Study Two compares the gender identities of offender and non-offender adolescent males as measured by the DMCS. Specifically it poses two questions: will adolescent offender males endorse vehicle theft as a way of creating a particular adolescent male gender identity; and will cars and driving figure as significant behaviours in “doing masculinity” for both offenders and non-offenders? Specifically it was hypothesised that adolescent males with histories of vehicle theft will endorse stealing a car as a masculine defining behaviour, that is, a way of “doing masculinity” (H<sub>3</sub>). Further both offender and non-offender adolescent males will endorse having a car and driving as ways of “doing masculinity” (H<sub>4</sub>).

## **METHOD STUDY TWO**

### *Participants*

Two samples of adolescent males were recruited for Study Two. Offenders ( $N = 122$ ) were adolescent males with at least one criminal offence who were clients of the Department of Communities. Their ages ranged from 13 – 19 years though only one participant was in fact 19 years old. Three participants did not indicate their age. Mean age was 16 years. All but one participant had ceased attending school.

Non-offender participants were drawn from two Catholic co-educational high schools (N = 68 and N = 87) with histories of teaching lower-socioeconomic students. One was situated in the inner city while the other was situated in a satellite town on the northern sector of Brisbane city. Ages ranged from 12 – 18 years and grade levels from eight to twelve. Three participants did not report their age. Mean age was 15.24 years.

### *Materials*

Both offenders and non-offenders completed the Doing Masculinity Composite Scale (DMCS). Non-offenders however also completed Section H of the Bachman, Johnstone and O'Malley Delinquency Scale (1978) used in Study One. The inclusion of this scale was to ensure that the non-offender sample was in fact predominantly non-offending. The DMCS contains 12 behavioural items which asks adolescent males to report on what they perceive they have to do in order to be a man. Seven items are concerned with legal behaviours such as having a job, having a car, having a place to live. Five items are concerned with illegal or antisocial behaviours such as stealing, stealing a car, drinking and fighting. Responses ranged from 1 (*Disagree*) to 10 (*Agree*). A copy of the DMCS is appended.

### *Procedure*

#### *Offenders*

Offenders were recruited through the relevant state government department. Departmental staff approached clients with at least one criminal conviction and invited them to participate. A time and place agreeable to both the participant and the Departmental staff person was then arranged. The departmental officer remained in the vicinity of the interview for the duration of the survey. Prior to the interview participants, parents or carers were provided with Informed Consent Packages. For participants less than 16 years, the permission of a legal guardian was also obtained. Consent forms were again read to participants immediately prior to the survey to reiterate the content and process of the research and to circumvent any literacy difficulties. Participants were reminded of the voluntary nature of the interview, the possibility of refusing any item and their freedom to terminate the interview at any time without explanation. Participants were paid twenty dollars for their time and information. Items of the DMCS were then read to participants.

#### *Non-offenders*

Non-offenders were approached in their Pastoral Care classes across all grades. No identifying information was collected and students were not paid for their involvement. Non-offenders completed the survey by themselves and survey administration was monitored by the teacher.

In accordance with research requirements articulated by the Queensland University of Technology, ethics clearance was sought and obtained prior to data collection for both offenders and non-offenders: 2441H.

## **RESULTS STUDY TWO**

In order to ensure that comparisons between offender and non-offender participants were reliable, participants in the non-offender sample who indicated they had engaged in six or more delinquent activities in the previous year were excluded from the analyses (n = 28). The decision to exclude these participants was based on the criterion that approximately half of the non-offender sample (51.5%) had reported one to five delinquent activities, reflecting a normative component to some delinquent behaviour during adolescence. A further five participants had missing values on the Bachman, Johnston and O'Malley Delinquency Scale (1978) and could not be included.

Before testing the hypotheses, a factor analysis of the DMCS was also conducted in order to examine the utility of the DMCS with both offenders and non-offender samples. The data was tested for the suitability through the use of three standard measures: the Kaiser-Meyer-

Olkin measure (KMO), Bartlett's Test of Sphericity and an examination of the diagonal values of the anti-image correlation matrix of the factor analysis (Tabachnick & Fidell, 2001). All three measures indicated the suitability of the data for factor analysis: KMO = 0.82, Bartlett's Test of Sphericity  $\chi^2 = 1553.64$ ,  $df = 66$ ,  $p < .000$  and all values in the diagonal of the anti-image matrix were above .5 (Tabachnick & Fidell, 2001). Initial Principal components analysis indicated three factors with eigenvalues greater than one accounting for 68.6% of the total variance. The scree plot supported this. Factor correlations were low ( $< .3$ ) indicating the use of an orthogonal rotation (Tabachnick & Fidell, 2001). The rotated factor matrix is presented in Table 3 below. Only loadings greater than .4 are included and items are ordered in relation to size to facilitate interpretation.

Table 3

*Doing Masculinity Composite Scale Rotated Factor Matrix: Total Sample*

DMCS items	F1	F2	F3
Have a car	.811		
Be able to drive	.792		
Have a place to live	.720		
Have a girlfriend	.704		
Get Money	.550		
Have a family	.537		
Be Tough and fight	.475		
Steal a car		.928	
Steal		.841	
Do a break and enter		.762	
Swear			.875
Drink Alcohol			.677

Factor One primarily reflects the legal behaviours participants endorsed as masculine defining behaviours. Behaviours such as having a girlfriend, a family, money and a car could be described as reflecting a Conventional factor. Interestingly the two highest loading items on this factor were concerned with having a car and the ability to drive. Factor Two contains only three items though these are all illegal behaviours focusing on theft. This could be described as a Theft factor. Factor Three is limited in its interpretation as it contains only two items: "swearing" and "drinking". While these activities could involve illegal behaviours (e.g. underage drinking, offensive behaviour) they could also be considered as conventional or common behaviours in male adolescent social situations. These behavioural items could describe a Common-Behaviour factor.

*Vehicle Theft and Offenders*

In order to test H<sub>3</sub> and H<sub>4</sub>, a series of t tests were conducted to compare offenders and non-offenders responses on the DMCS. In relation H<sub>3</sub>, as can be seen in Table 4, overall endorsement for stealing a car was low for both groups though slightly higher in the offender sample. As can also be seen however from Table 4 is that offender males were more likely to endorse vehicle theft as a masculine defining behaviour than non-offenders. When this result was examined in closer detail, it was found that within the offender sample, 35 (29.4%) participants indicated some agreement with "Stealing a car" (a score of two or more) as a necessary behaviour in order to be a man. The mean for these participants was 3.97 which indicated a low- to-moderate level of endorsement for this behaviour. Of these same participants, 32 (91.4%) scored between two to six on the response scale, indicating that most of participants with offending histories who endorsed vehicle theft as a masculine defining behaviour, did so at a minimal to moderate level. In the non-offender sample, 27 (21.8%) participants indicated some degree of endorsement with the statement of "Stealing a car to be a man". The mean score for those participants who supported the statement was 3.2. Ninety-two percent of these scores were between two and five, again indicating low to moderate endorsement.

Table 4

*T test comparisons between offenders and non-offenders Doing Masculinity Composite Scale*

Item	Offender or Not	Means	F	df	Significance	N
Have a place to live	Offender	6.75	32.28	227	.000****	119
	Non-Offender	7.29				110
Be able to drive	Offender	5.03	36.01	228	.000****	119
	Non-Offender	6.81				111
Get money	Offender	5.83	26.52	228	.000****	119
	Non-Offender	6.06				111
Have a family	Offender	5.28	8.45	228	.004**	119
	Non-Offender	5.90				110
Have a car	Offender	4.36	11.31	228	.001***	119
	Non-Offender	6.16				111
Have a girlfriend	Offender	4.21	4.92	228	.028*	119
	Non-Offender	5.99				111
Be tough and fight	Offender	5.13	12.21	228	.001***	119
	Non-Offender	4.53				111
Steal	Offender	2.03	8.43	227	.004**	119
	Non-Offender	1.63				110
Steal a car	Offender	1.80	10.66	228	.001***	119
	Non-Offender	1.41				111
Do a break and enter	Offender	1.98	10.88	228	.001***	119
	Non-Offender	1.50				111
Drink alcohol	Offender	2.94	.000	228	.987	119
	Non-Offender	3.86				111
Swear	Offender	2.58	.428	228	.514	119
	Non-Offender	3.32				111
Doing Masculinity Score	Offender	47.92	6.31	225	.015*	119
	Non-offender	54.14				108

\*p &lt; .05; \*\*p &lt; .01; \*\*\*p ≤ .001; \*\*\*\*p = .000

In relation to H<sub>4</sub>, as can be seen in Table 3, the highest loading items on the first subscale of the DMCS are having a car and being able to drive. As can be seen in Table 4, mean scores for both these items are approximately five or above. When examined in more detail, 42% of offenders and 77% of non-offenders indicated considerable support (score of five or more) for the statement “*have a car to be a man*”. In relation to “*being able to drive to be a man*”, 47.9% of offenders and 80% of non-offenders indicated considerable support for this masculine defining behaviour. When compared, non-offenders were more likely than offenders to endorse both these behaviours.

In relation to remaining items in the DMCS, it can be seen that while non-offenders were more likely than offenders to endorse legal behaviours, both offenders and non-offenders gave strong endorsement (approximately five or more) to the conventional male behaviours. Endorsement for drinking alcohol and swearing behaviours were low to moderate with no significant differences between the two samples.

## DISCUSSION

Studies One and Two have suggested a link between adolescent males, vehicle theft and driving. Study One reported that young males were more likely to engage in vehicle theft (H<sub>1</sub>), Dangerous and Drink Driving behaviours (H<sub>2</sub>) than young females. Study Two reported that while mean endorsement was low, offender adolescent males were more likely than non-offender adolescent males to endorse vehicle theft as a way of “doing gender” (H<sub>3</sub>). Further having a car and driving were endorsed by both offender and non-offender adolescent males as ways of “doing masculinity” (H<sub>4</sub>).

To date traffic psychology has successfully documented male/female differences in relation to road use behaviours and crashes. The issue of gender however has been absent. Traffic psychology has been interested in the safety outcomes of driving though not interested in the gendered ways young men and women use cars.

As stated above, young men are overrepresented in crash and traffic offence statistics. Young men more likely to drive, to drive more frequently and speed than other road users (Catchpole et al., 1994; Ginpil & Attewell, 1994; Harré et al., 1996). Young males are more likely to bring with them to the driving situation a range of attitudes that endorse risk taking (Harré et al., 1996) complemented by beliefs which support such behaviours (Catchpole et al., 1994; Gregersen, 1995; MacDonald, 1994). Some young men are willing to break the law to access driving and a car (National Motor Vehicle Theft Reduction Council, 2003a). Such behaviours, attitude and beliefs reflect considerable interest in cars and driving by young males. Study Two has reported that for adolescent males about to enter the driving system, having a car and driving are ways of creating a masculine gender identity.

It is suggested that rather than focusing solely on the differential outcomes for young male and female drivers, traffic psychology may benefit from focusing on the gendered relationships young males have with the car and driving. As stated in the results from Study Two, both offenders and non-offenders gave greater endorsement to the legal and conventional behaviours in relation to “doing masculinity”. Road safety efforts therefore could make use of such conventional notions of gender identity. As well as deterring young males from the negative outcomes of risky driving, traffic psychology may benefit from appealing to the more conventional aspects of young males’ gender identity. Young men do not risk the safety of the girlfriends and partners by engaging in risky driving behaviours. Young men do not risk their employment opportunities by losing their licence. Considering the significant financial resources given to road safety education programs and campaigns, a more direct focus appealing to young males’ sense of conventional gender identity may influence their driving outcomes, reducing their risky driving and subsequent crash involvement.

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