

**APPENDIX A DRIVER CULPABILITY AND DRIVER RECORDS:
ANALYSES EXCLUDING MOTORCYCLE RIDERS**

Table A.1

Driver/rider status by driver culpability

Driver/rider	Culpable (N=182)		Non-Culpable (N=206)	
	N	%	N	%
Driver	166	47.2	186	52.8
Motorcycle rider	16	44.4	20	55.6

Note: $\chi^2(1)=0.10$, $p=.756$.

Table A.2

Percentage of drivers (excluding 36 motorcycle riders) detected for at least one of the listed incidents during the five years prior to multiple vehicle fatal crash involvement by driver culpability in the fatal crash

Type of prior incident	Culpable (%) (n=166)	Non-culpable (%) (n=186)	χ^2	p-value	Odds ratio	95% Confidence interval
Crashes	30.1	26.9	0.45	0.501	1.17	0.74-1.86
Culpable crashes	21.1	15.1	2.17	0.141	1.51	0.87-2.61
Traffic offences	39.2	39.8	0.01	0.904	0.97	0.64-1.50
Drink driving offences	5.4	2.2	2.64	0.104	2.61	0.79-8.63
Speeding offences	31.9	30.6	0.07	0.796	1.06	0.68-1.67
Careless driving offences	5.4	3.8	0.56	0.456	1.47	0.53-4.03
Seat belt/helmet offences	7.2	5.9	0.25	0.618	1.24	0.53-2.89
Licence disqualifications	13.3	7.5	3.13	0.077	1.88	0.93-3.80

**APPENDIX B PRIOR CRASH AND TRAFFIC OFFENCE TABLES FOR
DRIVERS INVOLVED IN A MULTIPLE VEHICLE FATAL CRASH**

Complete tables for the number of prior crashes and traffic offences for drivers involved in a multiple vehicle fatal crash by driver culpability in the fatal crash.

Table B.1

Total number of crashes for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Crashes	Culpable		Non-culpable	
	N	%	N	%
None	127	69.8	149	72.3
1	43	23.6	44	21.4
2	10	5.5	11	5.3
3	1	0.5	0	0.0
4	1	0.5	2	1.0
Total	182	100.0	206	100.0

Table B.2

Total number of culpable crashes for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Culpable crashes	Culpable		Non-culpable	
	N	%	N	%
None	144	79.1	172	83.5
1	33	18.1	28	13.6
2	5	2.7	6	2.9
Total	182	100.0	206	100.0

Table B.3

Total number of offences for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Total offences	Culpable		Non-culpable	
	N	%	N	%
None	107	58.2	119	57.8
1	26	14.3	46	22.3
2	16	8.8	19	9.2
3	14	7.7	9	4.4
4	10	5.5	2	1.0
5	4	2.2	6	2.9
6	2	1.1	4	1.9
7	1	0.5	1	0.5
8	0	0.0	0	0.0
9	0	0.0	0	0.0
10	1	0.5	0	0.0
11	1	0.5	0	0.0
Total	182	100.0	206	100.0

Table B.4

Total number of drink driving offences for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Drink driving offences	Culpable		Non-culpable	
	N	%	N	%
None	172	94.5	202	98.1
1	9	4.9	4	1.9
2	1	0.5	0	0.0
Total	182	100.0	206	100.0

Table B.5

Total number of speeding offences for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Speeding offences	Culpable		Non-culpable	
	N	%	N	%
None	123	67.6	136	66.0
1	27	14.8	40	19.4
2	15	8.2	15	7.3
3	9	4.9	8	3.9
4	4	2.2	5	2.4
5	1	0.5	1	0.5
6	2	1.1	0	0.0
7	0	0.0	1	0.5
8	0	0.0	0	0.0
9	0	0.0	0	0.0
10	1	0.5	0	0.0
Total	182	100.0	206	100.0

Table B.6

Total number of careless driving offences for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Careless driving offences	Culpable		Non-culpable	
	N	%	N	%
None	171	94.0	194	94.2
1	5	2.7	10	4.9
2	3	1.6	1	0.5
3	2	1.1	1	0.5
4	1	0.5	0	0.0
Total	182	100.0	206	100.0

Table B.7

Total number of seat belt/helmet offences for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Seat belt/helmet offences	Culpable		Non-culpable	
	N	%	N	%
None	166	91.2	193	93.7
1	16	8.8	11	5.3
2	0	0.0	2	1.0
Total	182	100.0	206	100.0

Table B.8

Number of licence disqualifications for drivers during the five years prior to the multiple vehicle fatal crash, by driver culpability in the fatal crash

Licence disqualifications	Culpable		Non-culpable	
	N	%	N	%
None	157	86.3	184	89.3
1	16	8.8	10	4.9
2	5	2.7	6	2.9
3	2	1.1	2	1.0
4	0	0.0	2	1.0
5	2	1.1	0	0.0
6	0	0.0	2	1.0
Total	182	100.0	206	100.0

Young Drivers: Personality and Risky Driving

INFORMATION FOR PARTICIPANTS

My name is Lisa Wundersitz and I am a PhD Student in the Department of Psychology at the University of Adelaide. My supervisors are Dr Nick Burns (Department of Psychology, The University of Adelaide), Dr Michael White (Transport SA) and Professor Jack McLean (Centre for Automotive Safety Research, The University of Adelaide).

Your participation is voluntary. I ask all participants to give informed consent via the standard consent form. Please return the consent form to the box labelled 'Young Driver Study' in the Psychology Department office. Participants can choose to discontinue their involvement at any stage.

The Study

Young drivers tend to be over-represented in crashes. The purpose of this study is to determine which personality characteristics and motivations define young drivers at a higher risk of crashing and how these individual differences, if any, relate to driving behaviour. This study may assist in the development of new road safety intervention strategies for young drivers.

I am seeking young drivers who hold a current South Australian provisional licence (P-plates) to participate in this study. You are invited to fill in an internet based questionnaire that will require approximately 30 minutes of your time. The questionnaire can be accessed easily through the Psychology Department website by selecting 'Teaching Material', 'Practicals' and then clicking on the link '**Young Driver Survey**'. You may need to know your Psychology User ID and Password. The questionnaire may be completed in your own time. It is important that you record your student number in the questionnaire and on the consent form so as to receive course credit for research participation (one hour). Your student number will then be separated from the results to ensure your individual responses cannot be identified.

Driver behaviour may be reflected in driving records. I would also like participants to provide their driver's licence number, so that I can follow driving records over a 12-month period. Participant's driving records will not be individually identifiable and will not be disclosed to anyone. If you do not wish to volunteer this information, you may still participate in the study.

Confidentiality

Participants are assured that they will not be individually identified in any report on this study. Furthermore, your responses on any questions you complete will not be disclosed.

Provision of Feedback to Participants

At the completion of the study, a written report will be provided to all participants detailing the main findings of the study.

If you have any further queries, please contact:

Lisa Wundersitz (PhD student, Department of Psychology)	(08) 8303 6298
	e-mail: lisa@casr.adelaide.edu.au
Dr Nick Burns (Principal Supervisor, Department of Psychology)	(08) 8303 5693
Dr Paul Delfabbro (Acting Convenor, Human Ethics Subcommittee)	(08) 8303 5744

DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF ADELAIDE

CONSENT FORM

Student Identification Number:.....

1. I, (please print name)

consent to take part in the research project entitled:

"High Risk Young Drivers: The Relationship Between Personality, Experience, Risky Driving and Crash Involvement"

2. The nature of the project has been explained to me, and is summarised on an information sheet that I have been given. I acknowledge that I have read the attached Information Sheet and I am aware that I should retain a copy.

3. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will be strictly confidential.

4. I understand that I am free to withdraw from the project at any time and that there are no known adverse effects of these questionnaires or procedures.

5. I understand that this project is for the purpose of research or teaching, and not for treatment.

.....
(signature)

.....
(date)

RELEASE OF DRIVER RECORDS

I, (name of participant)

...../...../..... (date of birth) (driver licence number)

give authority to Registration and Licensing, Transport SA, to release my driver licence offence and crash records, if any, to Lisa Wundersitz of the University of Adelaide, for research purposes.

.....
(signature)

.....
(date)

YOUNG DRIVER SURVEY

This study examines personality and risky driving. Remember that you must hold a current South Australian provisional licence (P-plates) to participate. We need to start by asking you some questions about your personal details. Please answer all questions honestly. Remember that any information you provide will remain strictly confidential and will only be used for this study, or subsequent teaching and research after the removal of any identifying information. Thank you for taking the time to complete this survey.

1. Please enter your student identification number.

2. Enter your age (in whole years as from last birthday).

3. What is your gender?

- Male
 Female

4. What is your current marital status?

- Single (never married)
 Defacto
 Married
 Separated or divorced
 Widowed

5. Enter the post code of your main residency (4 digits).

6. At what age did you first obtain your Learners Permit (L-Plates)?

- 16 years
 16.5 years
 17 years
 17.5 years
 18 years
 18.5 years
 19 years or older

7. At what age did you first obtain your Provisional Licence (P-Plates)?

- 16.5 years
 17 years
 17.5 years
 18 years
 18.5 years
 19 years
 19.5 years or older

8. What method did you use to successfully get your provisional licence?

- Log book
 Driving test

9. How many kilometres have you DRIVEN in the last week? (Please work back from yesterday for a 7 day week)

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Day 6am-7pm	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Night 7pm-6am	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

10. How much time (in minutes) have you spent DRIVING in the last week? (Please work back from yesterday for a 7 day week)

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Day 6am-7pm	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Night 7pm-6am	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please read each item below carefully. Select the 'True' button below the item if it is generally characteristic or true of your beliefs or behaviour; select the 'False' button below the item if the statement is not characteristic or true of your beliefs or behaviour. If you are unsure, please select the option that is characteristic of your beliefs or behaviour MOST of the time.

11. I often wish I could be a mountain climber
 True
 False
12. If somebody hits me first, I let them have it
 True
 False
13. I am always patient with others
 True
 False
14. Without the right luck, one cannot be an effective leader
 True
 False
15. If someone doesn't treat me right, I don't let it annoy me
 True
 False
16. I would call myself a tense or 'highly strung' person
 True
 False
17. Even if I had the money I would not care to associate with flighty rich people
 True
 False
18. I sometimes pout when I don't get my own way
 True
 False
19. Since the age of ten, I have never had a temper tantrum
 True
 False

20. I sometimes gossip about people I don't like
 True
 False
21. Sometimes I feel that I don't have enough control over the direction that my life is taking
 True
 False
22. There is really no such thing as 'luck'
 True
 False
23. When I am angry, I sometimes sulk
 True
 False
24. I lose my temper easily but get over it quickly
 True
 False
25. At times, I feel I get a raw deal out of life
 True
 False
26. Even when my anger is aroused, I don't use 'strong language' or swear
 True
 False
27. I would say that I am fairly self-confident
 True
 False
28. I never play practical jokes
 True
 False
29. I tend to bottle-up my emotions rather than make a scene
 True
 False
30. I feel best after a couple of drinks
 True
 False
31. Living is a wonderful adventure for me
 True
 False

32. When I get mad, I say nasty things
 True
 False
33. I am often troubled with feelings of inferiority
 True
 False
34. I don't seem to get what's coming to me
 True
 False
35. I avoid arguing over prices with shop assistants and sales people
 True
 False
36. I feel blue and depressed
 True
 False
37. I have known people who have pushed me so far that we have come to blows
 True
 False
38. I often have a hard time saying 'No'
 True
 False
39. Other people always seem to get the breaks
 True
 False
40. I often make threats I don't really mean to carry out
 True
 False
41. I will hesitate to make phone calls to business establishments and institutions
 True
 False
42. I get into fights about as often as other people
 True
 False
43. I am very quick to express my opinion
 True
 False

44. I could not put someone in their place even if they needed it
 True
 False
45. The future looks so gloomy that I wonder if I should go on
 True
 False
46. If I have to resort to physical violence to defend my rights, I will
 True
 False
47. Most misfortunes result from lack of ability, ignorance, laziness, or all three
 True
 False
48. I never get mad enough to throw things
 True
 False
49. I don't know any people that I downright hate
 True
 False
50. Once in awhile I cannot control my urge to harm others
 True
 False
51. Whoever insults me or my family is asking for a fight
 True
 False
52. Although I don't show it, I am sometimes filled with jealousy
 True
 False
53. There is altogether too much portrayal of sex in movies
 True
 False
54. Almost every week I see someone I dislike
 True
 False
55. During an argument, I am sometimes afraid that I will get so upset that I begin to shake all over
 True
 False

- 56. My future looks hopeful and promising
 - True
 - False

- 57. Who gets to be boss often depends on who was lucky enough to be in the right place first
 - True
 - False

- 58. There are times when I just can't say anything
 - True
 - False

- 59. I can remember being so angry that I picked up the nearest thing and broke it
 - True
 - False

- 60. I often wish I was never born
 - True
 - False

- 61. When I really lose my temper, I am capable of slapping someone
 - True
 - False

- 62. I can't help being a little rude to people I don't like
 - True
 - False

- 63. I would like to take up the sport of water skiing
 - True
 - False

- 64. I would rather concede a point than get into an argument
 - True
 - False

- 65. When I get up in the morning, I expect to have an interesting day
 - True
 - False

- 66. When people yell at me, I yell back
 - True
 - False

- 67. Many times we might as well decide what to do by flipping a coin
 - True
 - False

68. I sometimes carry a chip on my shoulder
 True
 False
69. I feel that there is more disappointment in life than satisfaction
 True
 False
70. I can think of no good reason for ever hitting anyone
 True
 False
71. A person should have considerable sexual experience before marriage
 True
 False
72. I would like to sail a long distance in a small but seaworthy sailing boat
 True
 False
73. It is impossible for me to believe that chance or luck plays an important role in my life
 True
 False
74. It makes me angry when some one makes fun of me
 True
 False
75. When arguing, I tend to raise my voice
 True
 False
76. I am careful to avoid hurting other people's feelings even when I feel I have been injured or hurt
 True
 False
77. I would like to learn to fly an aeroplane
 True
 False
78. A sensible person avoids activities that are dangerous
 True
 False
79. When I am mad, I sometimes slam doors
 True
 False

80. I generally cover up my poor opinions of others
 True
 False
81. People's misfortunes result from mistakes they make
 True
 False
82. I like to date members of the opposite sex who are physically exciting
 True
 False
83. I would like to try surfing
 True
 False
84. Lately, I have been kind of grouchy
 True
 False
85. I feel that life is drudgery and boredom
 True
 False
86. When I disapprove of my friend's behaviour, I let them know it
 True
 False
87. I often don't know what to say to attractive persons of the opposite sex
 True
 False
88. I can't help getting into arguments when people disagree with me
 True
 False
89. My feelings are rather easily hurt
 True
 False
90. People who continually pester you are asking for a punch in the nose
 True
 False
91. I have hesitated to make or accept dates because of 'shyness'
 True
 False

92. I would never want to try jumping out of a plane with or without a parachute
 True
 False
93. I am irritated a great deal more than people are aware
 True
 False
94. Keeping the drinks full is the key to a good party
 True
 False
95. I am generally a happy person
 True
 False
96. I enjoy the company of the 'in' crowd
 True
 False
97. It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyway
 True
 False
98. I would like to go scuba diving
 True
 False
99. If I let people see the way I feel, I'd be considered a hard person to get along with
 True
 False
100. I would call myself a nervous person
 True
 False
101. I sometimes show my anger by banging on the table
 True
 False
102. I often feel like 'dynamite' ready to explode
 True
 False
103. I think I would enjoy the sensations of skiing very fast down a large mountain slope
 True
 False

104. I sometimes feel 'just miserable' for no good reason
 True
 False
105. I often like to get 'high' (drink alcohol or smoke marijuana)
 True
 False
106. If somebody annoys me, I tell them what I think of them
 True
 False
107. When I look back on what's happened to me, I can't help feeling mildly resentful
 True
 False
108. I don't let a lot of unimportant things irritate me
 True
 False
109. I like wild 'uninhibited' parties
 True
 False
110. I often find myself disagreeing with people
 True
 False
111. I seldom strike back, even if someone hits me first
 True
 False
112. Things have worked out well for me
 True
 False
113. Sometimes people bother me just by being around
 True
 False
114. Becoming a success is a matter of hard work; luck has little or nothing to do with it
 True
 False
115. I demand that people respect my rights
 True
 False

116. I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional or illegal
- True
 False

117. I like to dive off the high board
- True
 False

Please indicate the extent to which you agree or disagree with each statement by selecting the alternative that best represents your opinion.

118. I often crave excitement.
- Strongly agree Strongly disagree
119. I wouldn't enjoy vacationing in Las Vegas.
- Strongly agree Strongly disagree
120. I have sometimes done things just for 'kicks' or 'thrills'.
- Strongly agree Strongly disagree
121. I tend to avoid movies that are shocking or scary.
- Strongly agree Strongly disagree
122. I like to be where the action is.
- Strongly agree Strongly disagree
123. I love the excitement of roller coasters.
- Strongly agree Strongly disagree
124. I am attracted to bright colours and flashy styles.
- Strongly agree Strongly disagree
125. I like being part of the crowd at sporting events.
- Strongly agree Strongly disagree

Please read each item below carefully. Select the 'True' button below the item if it is generally characteristic or true of your opinion about driving or your behaviour as a driver; select the 'False' button below the item if the statement is not characteristic or true of your opinion about driving or your behaviour as a driver. If you are uncertain, please select the option that is characteristic of your opinion or behaviour MOST of the time.

126. Skill in handling a car is less important to safety than an attitude of carefulness
- True
 False

127. I often make rude signs at other motorists who annoy me
- True
 False

128. I find driving a form of relaxation which I use when I feel tense
- True
 False

129. It's fun to manoeuvre and weave through traffic
- True
 False

130. I lose my temper when another driver does something stupid
-

- True
- False

131. During the past few months I have gone driving to 'blow off steam'

- True
- False

132. I am not easily provoked or angered when driving

- True
- False

133. It's fun to outwit other drivers

- True
- False

134. I have given chase to a driver who has annoyed me

- True
- False

135. I find it difficult to control my temper when driving

- True
- False

136. Taking chances while driving is just asking for trouble

- True
- False

137. I have been known to flash my car lights at others in anger

- True
- False

138. When driving on a highway I normally get passed by more cars than I pass myself

- True
- False

139. Driving helps me forget about pressures

- True
- False

140. Most drivers who have accidents are just unlucky

- True
- False

141. I like to pass other cars on the highway even if I'm not in a hurry

- True
- False

142. I swear out aloud at other drivers

- True

False

143. The driver who breaks the law should be held responsible for an accident in which they are involved

- True
 False

144. I use my horn a great deal

- True
 False

145. When I am feeling annoyed or angry I tend to drive more carefully because I am afraid of losing control of the car

- True
 False

146. It's not reasonable to blame 'conditions' for accidents since it's up to the driver to allow for them

- True
 False

147. If a driver follows too closely, I might hit the brakes to teach him or her a lesson

- True
 False

148. Modern highways are so good you don't have to worry about the conditions of the road when you drive

- True
 False

149. It's fun to beat other drivers when taking off from traffic lights

- True
 False

150. I get annoyed if the traffic lights change to red as I approach them

- True
 False

151. When I am angry or stressed I make a conscious effort to make sure I drive safely

- True
 False

152. Driving at high speeds is exciting

- True
 False

153. I swear under my breath at other drivers

- True
 False

154. I generally become more cautious while driving when I am upset

- True
^

False

155. If the driver behind me has their lights shining in my mirror, I pay them back in some way
- True
 False

156. When I am upset, driving helps soothe my nerves
- True
 False

Please select the most appropriate button beneath each statement that best describes how you typically drive. Remember that your answers will remain strictly confidential.

157. I take risks
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
158. I race other cars
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
159. I cut in and out of the traffic
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
160. I pass other cars
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
161. I get angry with slow drivers
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
162. I like to drive fast
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
163. I obey the road rules
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
164. I swear at other drivers
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |
165. I exceed the speed limit
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not at all | Some of the time | Moderately | Most of the time | All the time |

This is a list of things which people are tempted to do from time to time. How likely is it that you would do these things if you were completely certain of getting away with it? For each item, select the button which applies to you. Remember that your answers will remain strictly confidential.

166. Ride on public transport without paying a fare
 Not at all likely Quite likely Very likely
167. Park in a 'no standing' zone
 Not at all likely Quite likely Very likely
168. Earn cash payments without paying income tax on them
 Not at all likely Quite likely Very likely
169. Leave a shop with goods that you have not paid for
 Not at all likely Quite likely Very likely
170. Make a fraudulent insurance claim
 Not at all likely Quite likely Very likely
171. Drive the wrong way down a one-way street
 Not at all likely Quite likely Very likely
172. Keep a \$50 note which you have found in the street
 Not at all likely Quite likely Very likely
173. Hit someone who has annoyed or upset you
 Not at all likely Quite likely Very likely
174. Take time off work sick when you have something more interesting to do
 Not at all likely Quite likely Very likely

Please indicate the extent to which you agree or disagree with each statement by selecting the alternative that best represents your opinion.

175. I think it's OK to speed if the traffic conditions allow you to do so.
 Strongly agree Strongly disagree
176. It is immoral to drink and drive.
 Strongly agree Strongly disagree
177. The risk of dying young in a traffic crash is so low that you can ignore it.
 Strongly agree Strongly disagree
178. Most of my friends drive safely.
 Strongly agree Strongly disagree
179. I am not likely to be caught by police if committing a traffic offence.
 Strongly agree Strongly disagree
180. Hurting someone else with my car would scar me for life.
 Strongly agree Strongly disagree
181. I see most traffic hazards when driving.
 Strongly agree Strongly disagree
182. I usually keep a sufficient following distance.
 Strongly agree Strongly disagree

Please answer all questions honestly. Remember that any information you provide will remain strictly confidential and will only be used for this study.

183. How many traffic accidents have you been involved in while you were driving that involved physical injuries to one or more people?
184. How many traffic accidents have you been involved in while you were driving that ONLY caused damage to vehicle(s) or property?
185. How many traffic accidents have you been RESPONSIBLE for while you were driving that involved physical injuries to one or more people?
186. How many traffic accidents have you been RESPONSIBLE for while you were driving that ONLY caused damage to vehicle(s) or property?
187. How many fines for moving traffic offences have you received as a driver? (excluding parking fines)
188. Do you drink alcohol?
 Yes
 No
189. On a typical occasion when you drink alcohol, how many standard drinks of alcohol do you consume, on average? (A standard drink is a schooner of beer, a nip of spirits or a glass of wine)
 I never drink alcohol
 1-2 drinks
 3-4 drinks
 5-6 drinks
 7-9 drinks
 10 or more drinks

Thank you for taking the time to complete this survey. Once you are happy with the response you have made to each of the items click the box at the bottom of the questionnaire to say you have finished entering your answers.

PLEASE DO NOT FORGET TO SIGN THE CONSENT FORM (AVAILABLE IN PSYCHOLOGY DEPARTMENT OFFICE) AND RETURN IT TO THE BOX MARKED 'YOUNG DRIVER STUDY' IN THE PSYCHOLOGY DEPARTMENT OFFICE.

I HAVE FINISHED THE QUESTIONNAIRE

**APPENDIX D YOUNG TRAFFIC OFFENDER INFORMATION SHEET,
CONSENT FORM, AND QUESTIONNAIRE**

DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF ADELAIDE

Young Drivers: Personality and Risky Driving

INFORMATION FOR PARTICIPANTS

My name is Lisa and I am a PhD Student in the Department of Psychology at the University of Adelaide.

The Study

Young drivers tend to be over-represented in crashes. The purpose of this study is to determine which personality characteristics and motivations define young drivers at a higher risk of crashing and how these individual differences, if any, relate to driving behaviour. This study may assist in the development of new road safety programs for young drivers.

I am seeking young drivers, aged between 16 and 24 years, who have held a South Australian driver's licence to participate in this study. You are invited to fill in a questionnaire that will take approximately 10 minutes.

Driver behaviour may be reflected in driving records. I would also like to follow participant's driving records over a 12-month period. Participant's driving records will not be individually identifiable and will not be disclosed to anyone. If you do not wish to volunteer this information, you may still participate in the study.

Confidentiality

Participants are assured that they will not be individually identified in any report on this study. Furthermore, your responses on any questions you complete will not be disclosed to anyone.

Your participation in this study is voluntary. Ask all participants to give informed consent by signing the consent form. Please return the consent form and survey to the researcher or group facilitator when you have completed it. Participants can choose to discontinue their involvement at any stage.

DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF ADELAIDE

CONSENT FORM

1. I, (please print name)
consent to take part in the research project entitled:
"High Risk Young Drivers: The Relationship Between Personality, Experience, Risky Driving
and Crash Involvement"

2. The nature of the project has been explained to me, and is summarised on an information sheet that I have been given.

3. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will be strictly confidential.

4. I understand that I am free to withdraw from the project at any time and that there are no known adverse effects of these questionnaires or procedures.

5. I understand that this project is for the purpose of research or teaching, and not for treatment.

.....
(signature) (date)

RELEASE OF DRIVER RECORDS

I, (full name of participant)
...../...../..... (date of birth) (driver licence number)

give authority to Registration and Licensing, Transport SA, to release my driver licence offence and crash records, if any, to the Department of Psychology of the University of Adelaide, for research purposes. If necessary, I give authority to the researcher to obtain my driver licence number.

.....
(signature) (date)

YOUNG DRIVER SURVEY



This study examines personality and risky driving. We need to start by asking you some questions about your personal details. Please answer all questions honestly. Remember that any information you provide will remain strictly confidential and will only be used for this study after the removal of any identifying information. Thank you for taking the time to complete this survey.

- DIP Participant
 Friend

1. What is your age?
2. What is your gender?
 Male
 Female
3. What is your current marital status?
 Single (never married)
 Defacto
 Married
 Separated or divorced
 Widowed
4. Postcode of main residency (4 digits)
5. What is your main occupation?
6. What is the highest level of education that you have completed?
 Some secondary or high school
 Year 12
 Some Trade/Technical college
 Certificate or diploma
 Some University
 University degree
 Other (specify)
7. What is your current driver's licence status?
 Learner Permit
 Provisional Licence
 Full Licence
 Disqualified
 Unlicensed
8. If your licence is currently disqualified, what licence did you hold before you were disqualified?
 Learner Permit
 Provisional Licence
 Full Licence
 Not disqualified
 Unlicensed
9. At what age did you first obtain your Learners Permit (L-Plates)?
 16 years
 16.5 years
 17 years
 17.5 years
 18 years
 18.5 years
 19 years or older
10. At what age did you first obtain your Provisional Licence (P-Plates)?
 16.5 years
 17 years
 17.5 years
 18 years
 18.5 years
 19 years
 19.5 years or older
 I don't have my P's
11. What method did you use to successfully get your Provisional Licence?
 Log book
 Driving test
 I don't have my P's
12. Think back to the last time you were driving a vehicle. Approximately how many kilometres did you drive per week on average?
 km

YOUNG DRIVER SURVEY



Please read each item below carefully. Tick the True False box next to the item if the statement is generally true of your beliefs or behaviour; tick the False True box if the statement is not true of your beliefs or behaviour. If you are unsure, please select the option that is true of your beliefs or behaviour MOST of the time.

13. I often wish I could be a mountain climber True False
14. If somebody hits me first, I let them have it True False
15. I am always patient with others True False
16. I would call myself a tense or 'highly strung' person True False
17. I sometimes pout when I don't get my own way True False
18. Since the age of ten, I have never had a temper tantrum True False
19. I sometimes gossip about people I don't like True False
20. When I am angry, I sometimes sulk True False
21. At times, I feel I get a raw deal out of life True False
22. I would say that I am fairly self-confident True False
23. Living is a wonderful adventure for me True False
24. I am often troubled with feelings of inferiority True False
25. I feel blue and depressed True False
26. I have known people who have pushed me so far that we have come to blows True False
27. Other people always seem to get the breaks True False
28. I often make threats I don't really mean to carry out True False
29. I will hesitate to make phone calls to business establishments and institutions True False
30. I am very quick to express my opinion True False
31. I could not put someone in their place even if they needed it True False
32. The future looks so gloomy that I wonder if I should go on True False
33. If I have to resort to physical violence to defend my rights, I will True False
34. Once in awhile I can not control my urge to harm others True False
35. Whoever insults me or my family is asking for a fight True False
36. My future looks hopeful and promising True False
37. There are times when I just can't say anything True False
38. I often wish I was never born True False
39. When I really lose my temper, I am capable of slapping someone True False
40. I would like to take up the sport of water skiing True False

YOUNG DRIVER SURVEY



41. I would rather concede a point than get in an argument True False
42. I sometimes carry a chip on my shoulder True False
43. I feel that there is more disappointment in life than satisfaction True False
44. I can think of no good reason for ever hitting anyone True False
45. A person should have considerable sexual experience before marriage True False
46. I would like to sail a long distance in a small but seaworthy sailing boat True False
47. It makes me angry when someone makes fun of me True False
48. I would like to learn to fly an aeroplane True False
49. A sensible person avoids activities that are dangerous True False
50. When I am mad, I sometimes slam doors True False
51. I generally cover up my poor opinions of others True False
52. I like to date people who are physically exciting True False
53. I would like to try surfing True False
54. Lately, I have been kind of grouchy True False
55. I feel that life is drudgery and boredom True False
56. When I disapprove of my friend's behaviour, I let them know it True False
57. I often don't know what to say to people I find attractive True False
58. I can't help getting into arguments when people disagree with me True False
59. My feelings are rather easily hurt True False
60. People who continually pester you are asking for a punch in the nose True False
61. I have hesitated to make or accept dates because of 'shyness' True False
62. I would never want to try jumping out of a plane with or without a parachute True False
63. I am irritated a great deal more than people are aware True False
64. Keeping the drinks full is the key to good party True False
65. I am generally a happy person True False
66. I enjoy the company of the 'in' crowd True False
67. I would like to go scuba diving True False
68. If I let people see the way I feel, I'd be considered a hard person to get along with True False
69. I would call myself a nervous person True False
70. I often feel like 'dynamite' ready to explode True False
71. I think I would enjoy the sensations of skiing very fast down a large mountain slope True False

YOUNG DRIVER SURVEY



72. I sometimes feel 'just miserable' for no good reason True False
73. I often like to get 'high' (drink alcohol or smoke marijuana) True False
74. If somebody annoys me, I tell them what I think of them True False
75. When I look back on what's happened to me, I can't help feeling mildly resentful True False
76. I don't let a lot of unimportant things irritate me True False
77. I like wild 'uninhibited' parties True False
78. I often find myself disagreeing with people True False
79. I seldom strike back, even if someone hits me first True False
80. Things have worked out well for me True False
81. Sometimes people bother me just by being around True False
82. I demand that people respect my rights True False
83. I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional or illegal True False
84. I like to dive off the high board True False

Please tick the most appropriate response beneath each statement that best describes how you typically drive. Remember that your answers will remain strictly confidential.

85. I take risks Not at all Some of the time Moderately Most of the time All the time
86. I race other cars Not at all Some of the time Moderately Most of the time All the time
87. I cut in and out of the traffic Not at all Some of the time Moderately Most of the time All the time
88. I pass other cars Not at all Some of the time Moderately Most of the time All the time
89. I get angry with slow drivers Not at all Some of the time Moderately Most of the time All the time
90. I like to drive fast Not at all Some of the time Moderately Most of the time All the time
91. I exceed the speed limit Not at all Some of the time Moderately Most of the time All the time

YOUNG DRIVER SURVEY



Please read each item below carefully. Tick the 'True' box next to the item if the statement is generally true of your opinion about driving or your behaviour as a driver; tick the 'False' box if the statement is not true of your opinion about driving or your behaviour as a driver. If you are unsure, please select the option that is true of your opinion or behaviour MOST of the time.

92. I often make rude signs at other motorists who annoy me True False
93. I find driving a form of relaxation which I use when I feel tense True False
94. It's fun to manoeuvre and weave through traffic True False
95. I lose my temper when another driver does something stupid True False
96. I am not easily provoked or angered when driving True False
97. It's fun to outwit other drivers True False
98. I have given chase to a driver who has annoyed me True False
99. I find it difficult to control my temper when driving True False
100. I have been known to flash my car lights at others in anger True False
101. I like to pass other cars on the highway even if I'm not in a hurry True False
102. I swear out aloud at other drivers True False
103. I use my horn a great deal True False
104. When I am feeling annoyed or angry I tend to drive more carefully because I am afraid of losing control of the car True False
105. If a driver follows too closely, I might hit the brakes to teach him or her a lesson True False
106. It's fun to beat other drivers when taking off from traffic lights True False
107. When I am angry or stressed I make a conscious effort to make sure I drive safely True False
108. Driving at high speeds is exciting True False
109. I generally become more cautious while driving when I am upset True False
110. If the driver behind me has their lights shining in my mirror, I pay them back in some way True False
111. When I am upset, driving helps soothe my nerves True False

YOUNG DRIVER SURVEY



This is a list of things which people are tempted to do from time to time. How likely is it that you would do these things if you were completely certain of getting away with it? For each item, tick the option which applies to you. Remember that your answers will remain strictly confidential.

112. Ride on public transport without paying a fare Not at all likely Quite likely Very likely
113. Park in a 'no standing' zone Not at all likely Quite likely Very likely
114. Earn cash payments without paying income tax on them Not at all likely Quite likely Very likely
115. Leave a shop with goods that you have not paid for Not at all likely Quite likely Very likely
116. Drive the wrong way down a one-way street Not at all likely Quite likely Very likely
117. Keep a \$50 note which you have found in the street Not at all likely Quite likely Very likely
118. Hit someone who has annoyed or upset you Not at all likely Quite likely Very likely
119. Take time off work/school/uni sick when you have something more interesting to do Not at all likely Quite likely Very likely

Please indicate the extent to which you agree or disagree with each statement by ticking the alternative that best represents your opinion.

120. I think it's OK to speed if the traffic conditions allow you
Strongly agree 1 2 3 4 5 Strongly disagree
121. It is immoral to drink and drive
Strongly agree 1 2 3 4 5 Strongly disagree
122. The risk of dying young in a traffic crash is so low that you can ignore it
Strongly agree 1 2 3 4 5 Strongly disagree
123. Most of my friends drive safely
Strongly agree 1 2 3 4 5 Strongly disagree
124. I am not likely to be caught by police if committing a traffic offence
Strongly agree 1 2 3 4 5 Strongly disagree
125. Hurting someone else with my car would scar me for life
Strongly agree 1 2 3 4 5 Strongly disagree
126. I see most traffic hazards when driving
Strongly agree 1 2 3 4 5 Strongly disagree
127. I usually keep a sufficient following distance
Strongly agree 1 2 3 4 5 Strongly disagree

YOUNG DRIVER SURVEY



Please answer all questions honestly. Remember that any information you provide will remain strictly confidential and will only be used for this study.

128. How many traffic crashes have you been involved in while you were driving that involved physical injuries to one or more people?

129. How many traffic crashes have you been involved in while you were driving that ONLY caused damage to vehicle(s) or property?

130. How many traffic crashes have you been RESPONSIBLE for while you were driving that involved physical injuries to one or more people?

131. How many traffic crashes have you been RESPONSIBLE for while you were driving that ONLY caused damage to vehicle(s) or property?

132. What type of traffic offence did you commit that led to your licence disqualification?

<input type="checkbox"/> Speeding	<input type="checkbox"/> Following too closely
<input type="checkbox"/> Not displaying L or P-Plates	<input type="checkbox"/> Fail to keep left
<input type="checkbox"/> Drink driving	<input type="checkbox"/> Overtaking without due care
<input type="checkbox"/> Fail to give way/stop	<input type="checkbox"/> Not wearing seat belt
<input type="checkbox"/> Disobey traffic signals/sign	<input type="checkbox"/> Not applicable
<input type="checkbox"/> Dangerous/reckless/careless driving	<input type="checkbox"/> OtherE (specify)

133. Were you involved in a crash when the traffic offence that led to your licence disqualification was detected?

 Yes No Not applicable

134. In total, how many fines for moving traffic offences have you received as a driver? (excluding parking fines)

135. Do you drink alcohol?

 Yes No

136. On a typical occasion when you drink alcohol, how many standard drinks of alcohol do you consume, on average? (A standard drink is a schooner of beer, a nip of spirits or a glass of wine)

<input type="radio"/> I never drink alcohol	<input type="radio"/> 5-6 drinks
<input type="radio"/> 1-2 drinks	<input type="radio"/> 7-9 drinks
<input type="radio"/> 3-4 drinks	<input type="radio"/> 10 or more drinks

APPENDIX E CHANGES TO THE SOCIAL MOTIVATION QUESTIONNAIRE: AN AUSTRALIAN VERSION

1. Introduction

The Social Motivation Questionnaire (SMQ) is a ten-item measure of mild social deviance developed by West, Elander and French (1993) in the United Kingdom. The construct of mild social deviance was developed to examine antisocial motivation within the normal range and to concentrate on behaviours whose motive was not to harm others but harm to others may be a likely consequence (West et al., 1993). Research has shown that the original UK measure of mild social deviance was associated with self-reported traffic violations and crash involvement (Lawton *et al.*, 1997; West et al., 1993). Alterations to the wording of some of the SMQ questions were necessary to make the questionnaire applicable to drivers in Australia, rather than the United Kingdom.

The SMQ was administered to two different populations of young Australian drivers that might be expected to have different levels of mild social deviance. The first group of young drivers ($N=270$) was drawn from a population of university students who held a provisional licence. The second group consisted of young drivers who had their provisional driver's licence disqualified after being detected committing a traffic offence or offences ($N=336$). These drivers are subsequently referred to as "young offenders" (see Chapter 5 for further details about these groups).

2. Changes to the SMQ

In the original ten-item SMQ, participants were asked: "How likely is it that you would do these things if you were completely certain of getting away with it?" Responses were scored on a three point scale labelled 1 = 'not at all likely', 2 = 'quite likely' and 3 = 'very likely'. Items from the original SMQ are shown in Table E.1.

Several changes were made to the original SMQ to make the questionnaire relevant to Australian drivers. The ninth item from the original SMQ “Own and watch a TV without having a licence” was omitted, as it was not relevant in an Australian context. Two other items were omitted and two new items were created that were similar to the original items, but were applicable to respondents driving in the Australian environment. The second SMQ item “Park on double yellow lines” was changed to “Park in a ‘no standing’ zone” to reflect an equivalent parking offence in Australia. The sixth item of the SMQ “Drive down the hard shoulder of the motorway when the other lanes are jammed” was altered to “Drive the wrong way down a one-way street”. The seventh SMQ item was altered slightly to represent Australian currency. It was changed from “ Keep a £20 note which you have found in the street” to “Keep a \$50 note ...”.

The fifth item of the SMQ “Make a fraudulent insurance claim” was excluded from the offender sample questionnaire due to its initial low reliability (based on preliminary student data). Thus, the mild social deviance measure was a nine-item scale for the student sample and an eight-item scale for the offender sample.

Table E.1

Items from the original SMQ scale developed by West et al. (1993)

NOTE: This table is included on page 308 of the print copy of the thesis held in the University of Adelaide Library.

3. Internal Consistency and Factor Structure of the Australian Version of the SMQ

Factor analysis and reliability analysis were undertaken to assess the internal structure of the new version of the SMQ using the student and young traffic offender data. Cronbach's alpha coefficients were calculated to determine the internal consistency of each item within the scale for each data set. Principal components analyses were conducted to verify the number of factors underlying the scale in each data set. Based on polychoric correlation matrices, the optimal number of factors was selected by applying four methods: Velicer's MAP criterion (Velicer, 1976), parallel analysis (Horn, 1965), eigenvalues-greater-than-one (Kaiser, 1960), and scree plot (Cattell, 1966). One major factor was found in the offender data. While the scree plot and MAP criterion decision rules suggested a one-factor solution in the student sample, the eigenvalues-greater-than-one rule and parallel analysis suggested a two-factor solution. Closer inspection of the individual items indicated that the second factor was not interpretable. Thus, a one-factor solution was retained. The single factor explained slightly more of the variance in the offender sample (45.9%) than the student sample (40.5%). The SMQ item factor loadings, communalities, and Cronbach's alpha coefficients (alphas are for the scale if the individual item was deleted) for the student and offender samples can be seen in Tables E.2 and E.3 respectively.

For individual alpha levels, if an item is excluded and the alpha for the scale becomes higher than the current scale alpha level of the scale, this item is considered to have poor internal consistency and should be deleted. None of the "alpha if item excluded" levels for items exceeded the alpha level for the whole scale among the student and offender data. Therefore, all individual items were internally consistent.

Table E.2

SMQ item factors loading and contribution to alpha coefficients for the student sample (N=270)

Mild social deviance	Factor loadings	Communalities (h^2)	Alpha if item excluded
Ride on public transport without paying a fare	.84	.71	.71
<i>Park in a 'no standing' zone</i>	.79	.63	.71
Earn cash payments without paying income tax on them	.77	.59	.72
Leave a shop with goods that you have not paid for	.77	.59	.74
Make a fraudulent insurance claim	.55	.30	.76
<i>Drive the wrong way down a one-way street</i>	.50	.25	.75
Keep a \$50 note which you have found in the street	.38	.15	.76
Hit someone who has annoyed or upset you	.49	.24	.76
Take time off work sick when you have something more interesting to do	.45	.20	.75
Alpha of scale = 0.76			

Note: Italics denotes newly created mild social deviance items for the Australian version.

Table E.3

SMQ item factors loading and contribution to alpha coefficients for the traffic offender sample (N=336)

Mild social deviance	Factor loadings	Communalities (h^2)	Alpha if item excluded
Ride on public transport without paying a fare	.73	.53	.73
<i>Park in a 'no standing' zone</i>	.73	.54	.72
Earn cash payments without paying income tax on them	.69	.48	.72
Leave a shop with goods that you have not paid for	.80	.64	.74
<i>Drive the wrong way down a one-way street</i>	.80	.64	.71
Keep a \$50 note which you have found in the street	.46	.21	.75
Hit someone who has annoyed or upset you	.62	.39	.73
Take time off work sick when you have something more interesting to do	.50	.25	.75
Alpha of scale = 0.76			

Note: Italics denotes newly created mild social deviance items for the Australian version.

With respect to internal consistency, Nunnally (1978) recommended that alpha coefficients should be equal or higher than 0.70 if a set of items are to make up a scale.

The overall alpha level for the scales administered to students and young traffic offenders was 0.76. Although, alpha coefficients tend to increase as a function of the number of items (Cronbach, 1970), the alpha for the eight-item scale administered to young traffic offenders and the nine-item scale administered to students was the same as the alpha level reported for the original ten-item scale administered in the United Kingdom by West et al. (1993). Thus, the Australian version of the SMQ had a satisfactory degree of internal consistency.

The two new individual items had satisfactory factor loadings of .50 or greater in both data sets and acceptable individual alpha levels. However, the communality for one of the new items in the student sample was low (.25), leaving a considerable amount of the variance unexplained.

4. Summary

The Australian version of the Social Motivation Questionnaire represented a single underlying dimension and the items measuring this construct consistently measured the same dimension. The alpha coefficient for the Australian SMQ scale was the same as the original even though there were fewer items. Thus, the Australian version of the SMQ demonstrated good internal consistency.

5. References

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**APPENDIX F FACTOR LOADINGS AND COMMUNALITIES FOR
STUDENT QUESTIONNAIRE ITEMS**

Table F.1

Factor loadings and communalities for personality measures

Personality measures	Factor loadings	Communalities (h^2)
Assertiveness (accounts for 17% of variance)		
I tend to bottle-up my emotions rather than make a scene	.39	.15
I avoid arguing over prices with shop assistants and sales people	.23	.05
I often have a hard time saying 'No'	.33	.11
I will hesitate to make phone calls to business establishments and institutions	.48	.23
I am very quick to express my opinion	.48	.23
During an argument, I am sometimes afraid that I will get so upset that I begin to shake all over	.08	.01
There are times when I just can't say anything	.39	.15
I am careful to avoid hurting other people's feelings even when I feel I have been injured or hurt	.16	.03
I often don't know what to say to attractive persons of the opposite sex	.61	.38
I have hesitated to make or accept dates because of 'shyness'	.59	.35
Depression ^a (accounts for 39% of variance)		
Living is a wonderful adventure for me	.65	.42
I feel blue and depressed	.58	.33
The future looks so gloomy that I wonder if I should go on	.70	.49
My future looks hopeful and promising	.67	.44
I often wish I was never born	.59	.35
When I get up in the morning, I expect to have an interesting day	.44	.19
I feel that there is more disappointment in life than satisfaction	.69	.47
I feel that life is drudgery and boredom	.66	.43
I am generally a happy person	.61	.37
Things have worked out well for me	.66	.43

Personality measures cont.	Factor loadings	Communalities (h^2)
Emotional adjustment (accounts for 40% of variance)		
I would call myself a tense or 'highly strung' person	.49	.24
I would say that I am fairly self-confident	.65	.43
I am often troubled with feelings of inferiority	.56	.32
My feelings are rather easily hurt	.79	.62
I would call myself a nervous person	.72	.52
I sometimes feel 'just miserable' for no good reason	.54	.29
Externality (accounts for 33% of variance)		
Without the right luck, one cannot be an effective leader	.56	.31
Sometimes I feel that I don't have enough control over the direction that my life is taking	.50	.25
Who gets to be boss often depends on who was lucky enough to be in the right place first	.76	.58
Many times we might as well decide what to do by flipping a coin	.56	.31
It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyway	.43	.18
Internality (accounts for 27% of variance)		
There is really no such thing as 'luck'	.68	.47
Most misfortunes result from lack of ability, ignorance, laziness, or all three	.24	.06
It is impossible for me to believe that chance or luck plays an important role in my life	.59	.35
People's misfortunes result from mistakes they make	.39	.15
Becoming a success is a matter of hard work; luck has little or nothing to do with it	.59	.35
Sensation seeking (two-factor solution)		
Thrill and adventure seeking (accounts for 26% of variance)		
I often wish I could be a mountain climber	.57	.30
I would like to take up water skiing	.59	.34
I would like to sail a long distance in a small but seaworthy sailing boat	.48	.23
I would like to learn to fly an aeroplane	.77	.61
A sensible person avoids activities that are dangerous	.29	.09
I would like to try surfing	.77	.60
I would never want to try jumping out of a plane with or without a parachute	.59	.33
I would like to go scuba diving	.87	.70
I think I would enjoy the sensations of skiing very fast down a large mountain slope	.71	.56
I like to dive off the high board	.72	.53

Personality measures cont.	Factor loadings	Communalities (h^2)
Disinhibition (accounts for 12% of variance)		
Even if I had the money I would not care to associate with flighty rich people	.16	.03
I feel best after a couple of drinks	.73	.48
There is altogether too much portrayal of sex in movies	.47	.20
A person should have considerable sexual experience before marriage	.60	.37
I like to date members of the opposite sex who are physically exciting	.52	.31
Keeping the drinks full is the key to a good party	.76	.55
I enjoy the company of the 'in' crowd	.25	.12
I often like to get 'high' (drink alcohol or smoke marijuana)	.79	.62
I like wild 'uninhibited' parties	.39	.28
I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional or illegal	.32	.42

^a Factor analysis using Pearson correlations

Table F.2

Factor loadings and communalities for hostility and aggression measures

Hostility and aggression measures	Factor loadings	Communalities (h^2)
Assaultiveness (accounts for 32% of variance)		
If somebody hits me first, I let them have it	.61	.37
I have known people who have pushed me so far that we have come to blows	.62	.38
I get into fights about as often as other people	.23	.05
If I have to resort to physical violence to defend my rights, I will	.63	.39
Once in awhile I cannot control my urge to harm others	.49	.24
Whoever insults me or my family is asking for a fight	.69	.48
When I really lose my temper, I am capable of slapping someone	.53	.28
I can think of no good reason for ever hitting anyone	.55	.30
People who continually pester you are asking for a punch in the nose	.56	.31
I seldom strike back, even if someone hits me first	.61	.37
Indirect hostility (accounts for 24% of variance)		
I sometimes pout when I don't get my own way	.42	.18
Since the age of ten, I have never had a temper tantrum	.59	.35
I sometimes gossip about people I don't like	.29	.08
When I am angry, I sometimes sulk	.53	.28
I never play practical jokes	.19	.04
I never get mad enough to throw things	.56	.32
I can remember being so angry that I picked up the nearest thing and broke it	.46	.21
When I am mad, I sometimes slam doors	.75	.57
I sometimes show my anger by banging on the table	.40	.16
Verbal hostility (accounts for 22% of variance)		
Even when my anger is aroused, I don't use 'strong language' or swear	.38	.14
When I get mad, I say nasty things	.56	.32
I often make threats I don't really mean to carry out	.50	.25
I could not put someone in their place even if they needed it	.32	.10
I would rather concede a point than get into an argument	.38	.15
When people yell at me, I yell back	.60	.37
When arguing, I tend to raise my voice	.45	.20
I generally cover up my poor opinions of others	.53	.28
When I disapprove of my friend's behaviour, I let them know it	.35	.12
I can't help getting into arguments when people disagree with me	.50	.25

Hostility and aggression measures cont.	Factor loadings	Communalities (h^2)
Verbal hostility cont.		
If somebody annoys me, I tell them what I think of them	.60	.36
I often find myself disagreeing with people	.41	.17
I demand that people respect my rights	.35	.12
Irritability (accounts for 25% of variance)		
I am always patient with others	.35	.12
If someone doesn't treat me right, I don't let it annoy me	.42	.17
I lose my temper easily but get over it quickly	.34	.11
I can't help being a little rude to people I don't like	.38	.15
I sometimes carry a chip on my shoulder	.52	.27
It makes me angry when some one make fun of me	.45	.20
Lately, I have been kind of grouchy	.56	.31
I am irritated a great deal more than people are aware	.56	.32
I often feel like a 'dynamite' ready to explode	.63	.40
I don't let a lot of unimportant things irritate me	.64	.41
Sometimes people bother me just by being around	.51	.26
Resentment (accounts for 31% of variance)		
At times, I feel I get a raw deal out of life	.69	.48
I don't seem to get what's coming to me	.39	.15
Other people always seem to get the breaks	.72	.52
I don't know any people that I downright hate	.42	.18
Although I don't show it, I am sometimes filled with jealousy	.42	.17
Almost every week I see someone I dislike	.42	.18
If I let people see the way I feel, I'd be considered a hard person to get along with	.55	.31
When I look back on what's happened to me, I can't help feeling mildly resentful	.71	.50

Table F.3

Factor loadings and communalities for driving-related measures

Driving-related measures	Factor loadings	Communalities (h^2)
Aggression ^a (accounts for 20% of variance)		
I often make rude signs at other motorists who annoy me	.61	.38
I lose my temper when another driver does something stupid	.52	.27
I am not easily provoked or angered when driving	.53	.28
I have given chase to a driver who has annoyed me	.27	.07
I find it difficult to control my temper when driving	.58	.33
I have been known to flash my car lights at others in anger	.55	.30
I swear out aloud at other drivers	.45	.20
I use my horn a great deal	.49	.24
If a driver follows too closely, I might hit the brakes to teach him or her a lesson	.24	.06
I get annoyed if the traffic lights change to red as I approach them	.21	.05
I swear under my breath at other drivers	.26	.07
If the driver behind me has their lights shining in my mirror, I pay them back in some way	.41	.17
Competitive speed (accounts for 43% of variance)		
It's fun to manoeuvre and weave through traffic	.75	.56
It's fun to outwit other drivers	.62	.38
When driving on a highway I normally get passed by more cars than I pass myself	.55	.30
I like to pass other cars on the highway even if I'm not in a hurry	.69	.47
It's fun to beat other drivers when taking off from traffic lights	.70	.48
Driving at high speeds is exciting	.59	.35
Externality (accounts for 16% of variance)		
Most drivers who have accidents are just unlucky	.40	.16
Modern highways are so good you don't have to worry about the conditions of the road when you drive	.40	.16
Internality (accounts for 19% of variance)		
Skill in handling a car is less important to safety than an attitude of carefulness	.19	.04
Taking chances while driving is just asking for trouble	.64	.41
The driver who breaks the law should be held responsible for an accident in which they are involved	.52	.27
It's not reasonable to blame 'conditions' for accidents since it's up to the driver to allow for them	.20	.04

Driving-related measures cont.	Factor loadings	Communalities (h^2)
Inhibition (accounts for 84% of variance)		
When I am feeling annoyed or angry I tend to drive more carefully because I am afraid of losing control of the car	.91	.83
When I am angry or stressed I make a conscious effort to make sure I drive safely	.94	.89
I generally become more cautious while driving when I am upset	.90	.81
Tension reduction (accounts for 69% of variance)		
I find driving a form of relaxation which I use when I feel tense	.87	.75
During the past few months I have gone driving to 'blow off steam'	.67	.44
Driving helps me forget about pressures	.79	.63
When I am upset, driving helps soothe my nerves	.98	.96

^a Factor analysis using Pearson correlations

Table F.4

Factor loadings and communalities for selected measures

Additional measures	Factor loadings	Communalities (h^2)
Mild social deviance (accounts for 41% of variance)		
Ride on public transport without paying a fare	.84	.71
Park in a 'no standing' zone	.79	.63
Earn cash payments without paying income tax on them	.77	.59
Leave a shop with goods that you have not paid for	.77	.59
Make a fraudulent insurance claim	.55	.30
Drive the wrong way down a one-way street	.50	.25
Keep a \$50 note which you have found in the street	.38	.15
Hit someone who has annoyed or upset you	.49	.24
Take time off work sick when you have something more interesting to do	.45	.20
Driving style (accounts for 38% of variance)		
I take risks	.66	.43
I race other cars	.62	.39
I cut in and out of the traffic	.74	.54
I pass other cars	.66	.43
I get angry with slow drivers	.63	.40
I like to drive fast	.77	.60
I obey the road rules	.36	.13
I swear at other drivers	.40	.16
I exceed the speed limit	.62	.38
Excitement seeking (accounts for 31% of variance)		
I often crave excitement.	.79	.62
I wouldn't enjoy vacationing in Las Vegas.	.16	.02
I have sometimes done things just for 'kicks' or 'thrills'.	.67	.45
I tend to avoid movies that are shocking or scary.	.25	.06
I like to be where the action is.	.81	.66
I love the excitement of roller coasters.	.57	.32
I am attracted to bright colours and flashy styles.	.49	.24
I like being part of the crowd at sporting events.	.33	.11
Attitudes (accounts for 21% of variance)		
I think it's OK to speed if the traffic conditions allow you to do so.	.56	.31
It is immoral to drink and drive.	.33	.11
The risk of dying young in a traffic crash is so low that you can ignore it.	.62	.38
Most of my friends drive safely.	.14	.02

Additional measures cont.	Factor loadings	Communalities (h^2)
Attitudes cont.		
I am not likely to be caught by police if committing a traffic offence.	.43	.19
Hurting someone else with my car would scar me for life.	.64	.40
I see most traffic hazards when driving.	.31	.09
I usually keep a sufficient following distance.	.44	.20