Driver attitudes & risk perceptions, and their role in behaviour regarding the ‘big three’: speeding, drink-driving, and fatigue.


Reminder of a few basics

Research results on speeding, drink-driving, and fatigue-driving.

Working towards ultimate solutions

Suggestions for interim solutions.
People don’t understand road safety issues

- **Idiot watch:**
  - Semi-rural area: neighbour asked to have a koala crossing sign removed….
  - Because too many koalas were being hit.
  - She didn’t want them crossing there any more.
Failed and Successful uses of Fear/Punishment in Advertising: PENALTIES ALLOW LOWER, REAL LEVELS OF FEAR.
We need research based initiatives.

Areas of focus for behaviour change:

- Address the causes/precipitating factors.
- Reduce rewards for unsafe driving: Decrease social approval; other measures
- Deterrence:
  1. High probability & less extreme outcome threat work better than extreme & low probability threats (= enforcement).
  2. Attack circumventing behaviours
Car Advertising

- Works against us on all three factors
  1. **Deterrence**: illegal behaviour is depicted without detection.
  2. **Reduce rewards for unsafe driving**: Unsafe driving is depicted as
     - Thrilling
     - Worth leaving the party for
     - Sexy
     - Successful
  3. **Address the causes/precipitating factors**: The car becomes a stimulus for dangerous driving.
Car Advertising

- We should ALL complain.

- Contact in Senator Boswell’s office is:
  Brett Parsons - brett.parsons@dotars.gov.au
Causes and Precipitating factors

- Do we know enough?
- We should not assume that what works for one behaviour will work for another?
2001 (and earlier) Survey results: When do we ……..

<table>
<thead>
<tr>
<th>Speed?</th>
<th>When late</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When confident there is no danger (safe speeding)</td>
</tr>
<tr>
<td></td>
<td>When confident will not get caught</td>
</tr>
<tr>
<td>Drink-drive?</td>
<td>When out, unplanned</td>
</tr>
<tr>
<td>(earlier results)</td>
<td>Short trip; unlikely to get caught</td>
</tr>
<tr>
<td></td>
<td>(Too intoxicated to think about it)</td>
</tr>
<tr>
<td>Fatigue-drive?</td>
<td>When its too inconvenient to stop</td>
</tr>
<tr>
<td></td>
<td>Can avoid the problem anyway: 80% wind window down!!!!</td>
</tr>
<tr>
<td></td>
<td>76% put on loud music!!!!</td>
</tr>
</tbody>
</table>
2003 Survey results (details in paper by Ralston Fernandez):
What attitudes predict...

<table>
<thead>
<tr>
<th>Speeding?</th>
<th>Specific attitudes to speeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drink-driving?</td>
<td></td>
</tr>
<tr>
<td>Fatigue-driving?</td>
<td></td>
</tr>
</tbody>
</table>
Reducing rewards for unsafe behaviour: Social approval of drink driving can be changed

NSW data....Orange = % rating DD as unlucky or stupid. Pink = % rating DD as criminal or potential murderer.
Attitude change achieved by behaviour change

- RBT in NSW did not aim directly at attitude change and social disapproval.

- COGNITIVE DISSONANCE.
Comparing social disapprovals

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Average approval rating (2003 data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRINK-DRIVING</td>
<td>5.4</td>
</tr>
<tr>
<td>SPEEDING</td>
<td>4.4</td>
</tr>
<tr>
<td>FATIGUE-DRIVING</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Differences are significant:

But, we can gain ground on all these.
**Survey results:**

**Social approval for levels of speeding:**
KPH above limit to achieve the description

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Mean excess of speed for 50kph zone</th>
<th>Mean excess of speed for 60kph zone</th>
<th>Mean excess of speed for 80/90kph zone</th>
<th>Mean excess of speed for 100/110kph zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlucky</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Stupid</td>
<td>14.4</td>
<td>15.4</td>
<td>21.9</td>
<td>17.2</td>
</tr>
<tr>
<td>Irresponsible</td>
<td>16.1</td>
<td>18.1</td>
<td>19.8</td>
<td>20.9</td>
</tr>
<tr>
<td>Criminal</td>
<td>27.4</td>
<td>27.8</td>
<td>28.4</td>
<td>32.2</td>
</tr>
<tr>
<td>Potential Murderer</td>
<td>33.9</td>
<td>33.8</td>
<td>32.5</td>
<td>36.6</td>
</tr>
</tbody>
</table>
Social approval needs to be addressed

• Social approval of speeding is still high. Many drivers (esp. males) only disapprove at quite high levels of speeding (for rating of potential murderer, males required a mean speed of 147kph in a 100kph zone).

• We need to work on this. High levels of detection are likely to help.
Optimism bias

- Drink-driving: No optimism bias for drink-driving ability now.
- Speeding: Optimism bias.
- Fatigue: People don’t think they are better at it, BUT do think that:
  - They can drive for longer than average before becoming fatigued (esp. males: 4.5 hours for self; 3.7 hours for average males)
  - They drive fatigued less than average.
Survey results: methods of avoiding being caught AT RBT.

Many drivers believe that they can avoid RBT, by:
Knowing where and when it will occur.
Using back streets/ staying off main roads.

(our data from a few years ago)
Survey results: methods of avoiding being caught for SPEEDING.

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>% of unprompted mentions</th>
<th>% of Subjects who Mentioned Unprompted</th>
<th>% Free mention plus Agree when prompted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep off the main road/use back streets</td>
<td>43.5%</td>
<td>19.5%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Predict where and when police or cameras will be</td>
<td>7.1%</td>
<td>3.2%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Keep to certain lanes</td>
<td>2.4%</td>
<td>1.1%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Speed at certain times of the day</td>
<td>0%</td>
<td>0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Slow suddenly if you see police or a camera</td>
<td>7.1%</td>
<td>3.2%</td>
<td>37.4%</td>
</tr>
<tr>
<td>Other behaviours</td>
<td>29.4%</td>
<td>13.2%</td>
<td>14.2%</td>
</tr>
<tr>
<td><strong>In other:</strong> Radio scanning for warnings</td>
<td>2.4%</td>
<td>1.1%</td>
<td>(we did not have this in the list)</td>
</tr>
</tbody>
</table>
Survey results: Knowing the locations of cameras.

- Deliberately learn locations: 19% yes.
- Correlation of knowing locations with age: younger drivers focus more on this.
- Overall perceived probability of being caught if speeding = moderate to low.
Will the public tolerate more?

- Basic issue for consideration
Survey in NSW: Percentages of respondents giving each rating of the penalties for driving at 90kph in a 60kph zone and 130kph in a 100kph zone.

<table>
<thead>
<tr>
<th>Rating</th>
<th>% for 90 in 60z zone</th>
<th>% for 130 in 100 zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too harsh</td>
<td>7.5</td>
<td>12.8</td>
</tr>
<tr>
<td>Just right</td>
<td>50.3</td>
<td>46.5</td>
</tr>
<tr>
<td>Too lenient</td>
<td>37.4</td>
<td>31.0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4.8</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Comparison with Drink-Driving, in same survey:
- 4.8% too harsh.
- 40.2% too lenient.

YES, the public will accept harsher penalties for speeding and DrinkD.
Survey results: Deterrence for fatigue driving.

- Quite a few people believe that the police have methods for detecting fatigue-driving.
- It is difficult to know what to do about this…
1. Contributing factor differ from behaviour to behaviour. We cannot generalise.
2. We need to know much more about causes and precipitating factors. These can be critical.
3. The belief that death will not happen to oneself on the road mitigates against horror campaigns. Deterrence-detection is still critical.
4. Depiction of the extreme behaviours normalises the less extreme to apparent acceptability.
SPEEDING: Practical implications

- We need to address perceived detection avoiding behaviours for Speeding: back streets; excessive awareness of locations (which has advantages and is valuable in many locations)
- We need to improve social disapproval.
- The public will tolerate higher penalties.
SPEEDING: Practical implications

- People still believe in safe speeding, though less than in the past. Speed signs can lack credibility due to wide variations in traffic flow. = More variable signage?
- Promotion of the importance of speeding may help to shore up the need for enforcement.
SPEEDING: Practical implications

- Address situations like being late:
  
  Plan ahead.
  
  Allow for traffic hassles so you are not hassled: leave early.

- Passengers: reduce their numbers or empower them, with training not to reward speeding and risk taking?
We need to address perceived detection avoiding behaviours for drink-driving.

Locations need to be SEEN AS less predictable.

- We need to stop the section 10 escapes with no penalty, especially in rural regions where they are much more likely.
- Extension of the offenders program is a good
FATIGUE-DRIVING: Practical implications

- We need better data on the extent of the problem.
- We need to address perceived fatigue avoiding behaviours, not detection avoidance (esp. music and windows down).
- Deterrence is very difficult to organise, but safe-t-cam or point-to-point cameras may be turned this use?
Examples

- Address being late, not bored.
  
  Plan ahead.
  
  Allow for traffic hassles so you are not hassled: leave early.

- Passengers: reduce their numbers or empower them, with training not to reward speeding and risk taking?
Problem

- Huge variations of traffic volume and other factors, mean that speed limits are not appropriate for all conditions on many roads.
- Speed signs lose credibility.
- “Speeding” (driving above the posted limit) can be safe.

Safe Speeding: Solutions?

- Variable signs depending on conditions (traffic, rain, etc.)
- Promotion of credibility of signs to road users (details based on research on attitudes)
- ?????
Timing of Penalties

Suggestion

• Basic principle: Closer behaviour and the punishing event = better learning.

• But, cameras = long delay.

• Solutions:
  • Faster processing.
  • Warning at the time:
    – Radio interruption and/or Downstream sign: driver of vehicle XXX-111, you have just been recorded at 90 in this 60kph zone.
    – Fine=$..., demerit points=…
  + Good warning too all drivers.
The Future? A few suggestions

- Digital cameras, increased penalties (e.g., court appearance) may yield an opportunity for an RBT-like push in NSW
- But the rearguard action needs strengthening
  = More approval of penalties;
  = Less social approval of speeding.
The Future? A few suggestions

- Penalties can be effective under established conditions-
  - the perceived probability of detection is high,
  - the penalty is known,
  - the penalty is a sufficient deterrent, but not seen as unreasonable,
  - the alternative behaviours are known and viable.
  - message sequence should allow for reward for the correct behaviour
The Future? A few suggestions

- More variation of speed trap locations.
- Promote local publicity of detection (not crashes; not the extreme end of speeding)
The Future? A few suggestions

• Horror crash scenes are not working:

• The compromise of crashes and police looked logical, and I, like others, thought it would work, BUT
  – People still see high speeds as acceptable.
  – Drivers may tune out & so lose the detection message as well.

• We need emphasis on detection:
  – It’s dangerous (no visuals) and so we will catch you; more police on speed detection; more cameras; unpredictability of traps; heavier penalties (these are likely to be accepted, especially as points).

• Encourage cognitive dissonance (like RBT).
Factors affecting driving:
Perceived ease of driving by age
(3= extremely easy, -3= extremely difficult)
(Lee, Prabhakar, & Job, 1996)
CONCLUSIONS

1. Contributing factor differ from behaviour to behaviour. We cannot generalise.

2. We need to know much more about causes and precipitating factors. These can be critical.