The development of children’s and young people’s perceptions of driving

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Problems presented by young drivers

- Good evidence on elevated novice driver involvement in accidents\(^1\)
- Pattern worst among drivers aged 17-21 – 10%/20% contrast\(^2\)
- Incidence reflects pattern of driving violations – greatest amongst males, and drivers under 25\(^3\)
- Age/gender differences rule out any simple account in terms of inexperience
- Rapidity with which pattern established suggests carry-over of influences from pre-driver period – but of what in particular?

\(^1\) RoSPA, 2002; Forsyth et al, 1995; Carvallo & Triggs, 1998
\(^2\) Stradling et al, 2005
\(^3\) Grayson & Elliott, 2004
Pre-driver attitudes and behaviour

- Increasing work on novice drivers, some work on pre-drivers
- But, focus largely on attitudinal processes
- Two limitations:
  - little research which is specifically developmental in character
  - attitudinal approach presents various difficulties (multiple, indirect influences, often contradictory), may be conceptually simplistic
- So, existing literature presents restricted basis for understanding processes operating over time, and thus for planning interventions

\(^1\) e.g. Carcary et al, 2001; Ulleberg & Rundmo, 2002, 2003; Christmas, 2007; Deighton & Luther, 2007; Strecher et al, 2007; Waylen & McKenna, 2002, 2008
Durkin & Tolmie (2010)

• Review of previous research from developmental perspective

• Fundamental assumptions:
  - acquisition of skills needed to interact with traffic, ability/motivation to deploy them strategically, is lengthy process starting in childhood
  - none of these elements are static, but subject to continuing onward change
  - there needs to be continuity between accounts of pre-driver influences on novice drivers and novice/mature driver changes

• What a developmental approach adds: central concern with continuity and change in psychological systems
Methodology

• Start point in Strecher et al (2007) review of psychosocial predictors of driver behaviour, pre-driver intervention modalities
• Seven factors identified\(^1\), plus education/training; these used as basis of literature search in relation to novice drivers, pre-drivers
• Wide-ranging consultation on relevant ‘grey’ literature
• Novice driver findings summarised, potential developmental issues identified, informed by pre-driver literature and wider frameworks where available
• Identification of possible policy implications
• Key issue: where to draw boundaries in terms of age/process? (\(^1\)attitudes, norms, perceived threat/benefits, personality, identity, task difficulty, habit)
Attitudes

• Good evidence young driver attitudes do relate to driver behaviour:
  - e.g. attitudes towards drink-driving, reckless driving, speeding, riding with an unsafe driver, concern for others, violation of traffic rules, accident causality, crash risk all associated with self-reported driving behaviour, crash frequency

• But:
  - much unexplained variance
  - attitudes part of constellation of influences (cf. TPB), so setting likely to be important influence on behavioural expression
  - no single attitude involved here – something ties them together, making it hard to change any one element?
Attitudes

• Work on both young drivers and adolescent pedestrian risk-taking (e.g., Tolmie et al., 2006) indicates attitude/intention/behaviour relationship mediated by personality/self-identity

• Latter explains why impact moderated by factors such as presence of like-minded others, especially during adolescence

• So, attitudes **symptomatic** rather than causal influence?
Attitudes: developmental pointers

- Adolescent identity changeable, strongly related to peer behaviour
- But, some attitudes maintained despite apparently poor fit to identity
- Evidence of tensions between desired identity and real experience, producing characteristic fragmentation of beliefs
- Ambivalent attitudes reflect that tension:
  
  You think ‘I’ve passed my test, I’m going to go out’, and you go out to impress your mates and stuff, you just have a laugh, it just goes out of your head, all these things that could happen, you just don’t think about them. [Boy 15]

  vs

  My sister had all her lessons and the day she passed her test she took me out, she was like “oh my God, it’s so weird not having someone next to you that can stop the car at any point like an instructor”, and then it dawned on me how scary that would be, you were the only one in control of that car. [Girl 16] (Midlands Partnership Group, 2006)
Attitudes: potential interventions

• Ambivalent attitudes may indicate points for effective intervention:
  - need to identify productive points of tension, ways of amplifying these

• Work on ambivalence might have more impact if perceptions/stances at odds with risk-taking had associated identity, too:
  - need to look at popular adolescent identity/role models to identify possibilities

• For adolescents, identity-driven attitude patterns commonly stem from oppositional stances, so source of message is critical:
  - need to mask message source in interventions, e.g. by working indirectly through peers and siblings?
Norms

• Different types of norms:
  - injunctive: perceived approval of (important) others
  - descriptive: perceptions of what others do
• Both associated with unsafe driving/violations, but routes to influence differ:
  - internal sense of propriety influencing intended behaviour remotely vs herd-following, influencing behaviour in situ
• Good evidence for influence (positive and negative) of parents and friends/peers, though latter generally found to be stronger
• Being in car with peers may lead to potent combination of routes – to which males seem especially susceptible (identity issue?)
Norms: developmental pointers

- Family and peers likely to be relatively consistent (if differentiated) influences through pre-driver/novice period, though balance shifts
- Family influence not solely parents – older siblings may be crucial
- Parental influences operate through perceived approval/disapproval, because reduced presence, peer influences operate through identity and presence
- Evidence from other contexts of ‘sleeper effects’, particularly at moments of role change
- Tendency towards misperception of peer norms among adolescents (Tolmie et al., 2006)
Norms: potential interventions

- Importance of parents as potential long-term positive influence (and possible source of ambivalent attitudes):
  - focus effort on promoting competent safe practices around children
- Similar (or greater) potential importance of older siblings:
  - need much better research on sibling influence
- Passing of driving test as crucial moment of role change:
  - need to promote sense of scale of role change in order to help activate ‘sleeper effects’/resistance to negative peer influence
- More accurate perception of peer behavioural norms might help shift identity pressures:
  - identify/publicise positive behaviour of adolescents/young drivers
Identity

• Variety of evidence on the potency of social identity and self-identity as influence on behaviour, including within TPB framework
• Identity as point of organisation for attitudes and normative influences
• Also evidence that identity effects are stronger and more socially driven among adolescents and younger people
• Driving a car seen as particularly strong marker of identity among 17-20 year olds – but also adolescents?

I don’t know why, but every single lad wants one, because of the speed. [Boy 14]
Identity: developmental pointers

- Adolescence as key period in formulation of identity with carry-over effects into young adulthood
- *Aspirational* nature of identity in adolescence – achieving autonomy, developing social position/reputation; compulsion to live up to these

  ‘*Independence, having my own independence, you can go where you want, when you want. Getting places faster and without having to rely on other people, like my Dad.*’ [Boy 16]

- Association between self-identity and risk-taking, latter as means to reputation, especially among social group where this is meaningful
- Association between risk-taking of different types underlines role of identity, but also difficulty of targeting single area
- Importance of gender-typing in adolescent identities
Identity: potential interventions

• Forming an identity is a fundamental aspect of development, of particular significance in adolescence and young adulthood
  - role of identity in young driver behaviour needs to be given more focused attention
• Gender identity is typically entrenched, but other aspects of identity may be substantially more fluid during adolescence
  - pre-driver period may present best opportunity for nudging identity in relation to driving, within limits
• Identity is often encapsulated in iconic images, especially for adolescents
  - particularly important target for intervention may be images of (young) drivers and driving
Task difficulty

- Distinction between social vs cognitive processes relating to ability:\n  - social = perceived ability/demand, influence on *intention* to behave
  - cognitive = actual skills/competence, influence on moment-to-moment activity
  - social and cognitive interact, but for novices social is more dominant influence (lack of attunement/salience – and greater social skill?); for experienced cognitive is more dominant

- Driving demands diverse range of skills, but key ability is monitoring of performance across skill components and adjusting behaviour accordingly – *self-regulation*

- Better skills associated with safer behaviour since more controlled

1(cf. Hatakka et al, 2002, Goals of Driver Education (GDE) framework)
Task difficulty: developmental pointers

• Impact of identity on social processes already noted
• Self-regulation is made up of three strands:
  1) knowledge of strategies for adjusting performance
  2) maintenance of motivation to master task
  3) awareness of learning process
• Self-regulation tends to generalise across related skills, offering links from pre-driver period – especially re understanding how to learn
• Also more direct potential links: one key element of driver skill is reading the road, with parallels to social skill (perceiving agency, predicting beliefs and behaviour)
Task difficulty: potential interventions

• Acquisition, deployment, refinement of driving skills is complex process overlaid by social influences:
  - need research on relation between skill and perceived ability at different points in driving career, what promotes shifts

• There are potentially important precursors of skilled driver behaviour, both specific and general:
  - need to promote training in road-crossing and cycling that emphasises self-regulation
  - need to make reading the road central element of pedestrian, cycling and pre-driver training, connected to underlying social skill
Task difficulty: potential interventions

- There is a potentially exploitable tension between social and cognitive dimensions of ability (ambivalence again):
  - need to promote awareness of *real* nature of competence as driver, including self-regulation
  - also, its equivalence to other desirable skills (e.g. sport)

The only driving skill left in the era of automatics, powered steering and cruise control is parking. Any fool can drive a car. It’s parking that matters. That’s what separates the men from those who get their exercise by walking from the car to the pavement. *Andrew Anthony, Guardian Weekend Magazine, 9/8/08.*
Some general conclusions

• Becoming a driver starts in childhood, though relevant processes become more focused through adolescence
• Development proceeds in social contexts (parents, peers, perceived norms, images all influential)
• Changing processes that influence young driver behaviour at point of enactment is difficult
• Early intervention is therefore desirable – but it needs to be targeted developmentally, in terms of both process and timing