

EQUINE ROAD SAFETY: PUBLIC ATTITUDES, UNDERSTANDINGS AND BELIEFS. A QUALITATIVE STUDY



Introduction

Why Horse Riders?

- Very little previous research
- Potentially more vulnerable road user group than pedestrians/cyclists
- 900,000 domestic horses in UK and 81% potentially use the roads
- 69% horse riders use roads more 2x per week
- Officially equine RTAs are low but high % of near misses reported by riders and issue under reporting. Potential highway safety issue?

Literature Review: Factors which influence behaviour

- Attitudes
 - Legitimate road users (Basford 2002)
 - Vulnerable road user behaviour (Musselwhite et al 2010)
- Hazard Perception
 - Understanding horse rider as a vulnerable road user (Evans 2005, BHS 2010)
 - Vulnerable road user micro-hazard perception (Horsewill and Helman 2003, Hosking et al 2010)
- Skill
 - Perception of vulnerable road user skill (Musselwhite et al 2010, Basford et al 2002; Walker 2007)
 - Perception of skill driving around vulnerable road users (Brooks and Guppy 1990; Crundel et al 2008)
- Emotion (Fuller et al 2008)
- Empathy/Experience/Social Identity
 - Empathy and experience link (Brooks and Guppy 1990; Crundel et al 2008)
 - Empathy and social identity link (Batson and Shaw 1991; Passer and Smith 2008).

Table 1 Horse Rider Accident Data

Year	Built up Roads		Non Built up Roads		All Accidents
	No.	%	No	%	
2004*1	52	39%	80	61%	132
2005*2	59	46%	69	54%	128
2006*3	54	43%	69	57%	123
2007*4	59	46%	68	54%	127
2008*5	50	47%	56	53%	106

Methodology

- Preliminary Research: BHS Presentation to Mendip AMG.
- 6 semi-structured focus groups;
 - 4 groups drivers (2 older, 2 younger)
 - 2 groups riders (1 older, 1 younger)
- 2 phase approach
- Topic guides developed from literature review
- Mix of questions, discussion and tasks
- Hazard perception investigated through pictorial scenarios
- Thematic analysis

PHASE 1: FOCUS GROUPS

- Younger drivers (2 groups :mixed urban and rural)
- Younger horse riders (1 group)



INITIAL ANALYSIS

- Identification of key themes
- Revised framework of research questions

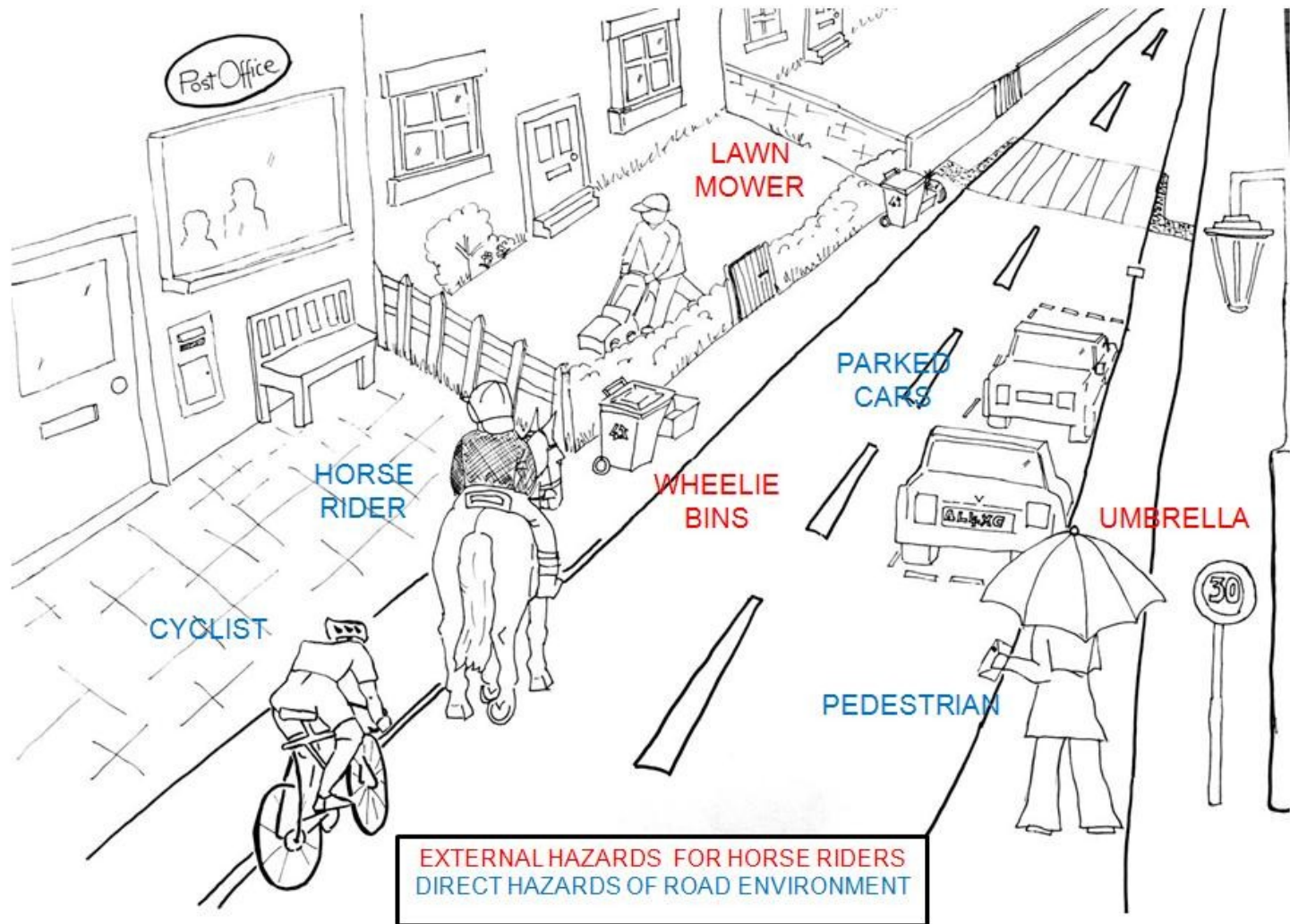


PHASE 2: FOCUS GROUPS

- Older drivers (2 groups: 1 urban, 1 rural)
- Older horse riders (1 group)



FINAL ANALYSIS



Findings and Discussion

1) Driver ability and knowledge

- Drivers and riders identify different driving behaviour as dangerous/risky.
- Minority younger less experienced drivers do not realise horse riders not 100% in control

I've always thought riders have even more control than you would in a car or on a bicycle because the horse wouldn't want to get hurt..... (Student Driver Group 1)"

- Older horse riders perceived as more skilful (and less vulnerable) than younger riders.
- Drivers believe they can drive safely around horse riders but knowledge is incomplete.

- Overtaking horse is more difficult than other road users.
- Drivers “car coon”

When you are in the car, you are in your own little world, you have the radio on, the CD on, you are in control and detached from the environment around you, insulated. You are confident that you are protected (Older Rural Driver)."

“Car cooning” can lead to;

- going on autopilot/ unintentional mistakes
- perceptions of relative vulnerability which switch when overtaking

“As a driver if you go on the wrong side of the road there is a psychological sort of pressure to get off it so you try and go as quick as you can, because you are worried about something coming the other way (Student Driver Group 2)."

“When you’re driving in your mind you make a commitment to pull out if something is coming the other way then you are the vulnerable party, that is always the worry. It’s not just the white line it’s the vulnerability if something else is coming and you are in the middle of the road (Older Rural Driver)."

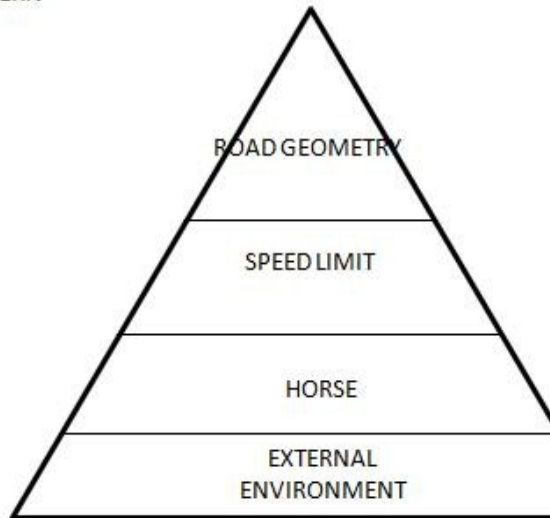
2) Hazard and Risk Perception

- Divergence in hazard perception between horse riders and drivers
- Drivers with friends/family with horses better able to consider scene from both perspectives

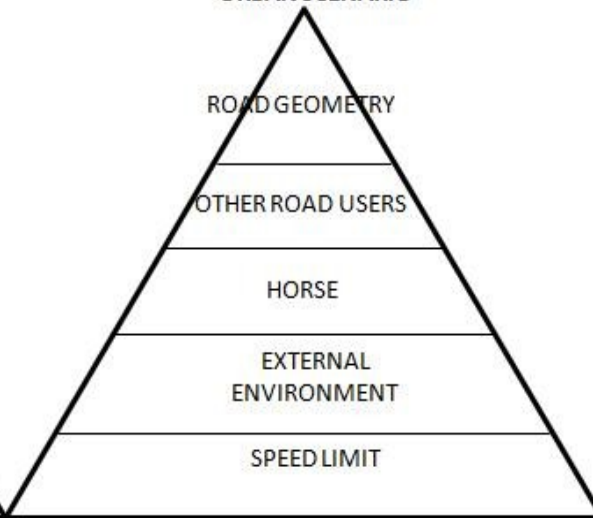
DRIVERS

MOST CONCERN

RURAL SCENARIO

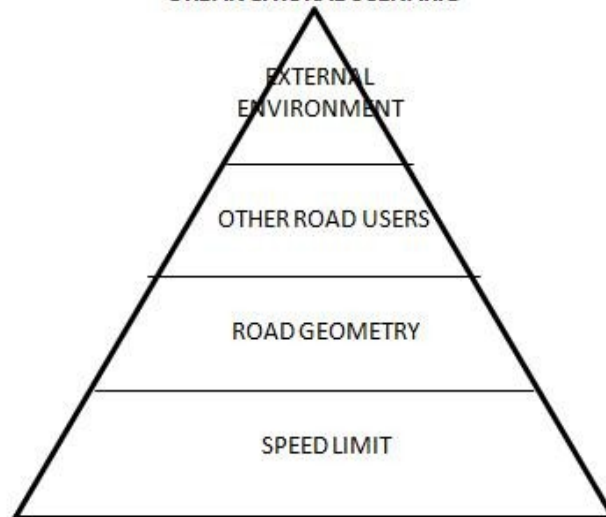


URBAN SCENARIO



LEAST CONCERN

URBAN & RURAL SCENARIO



MOST CONCERN

HORSE RIDERS

LEAST CONCERN

3) Expectation and Entitlement to Use the Road

- Drivers don't expect horses to be on the road even in rural areas unless they encounter them frequently.
- Younger drivers had more negative attitudes towards legitimacy of horse riders using the road
- Drivers frustrated or annoyed with horse riders reported more risky behaviour.

4) Experience and Empathy

- Drivers with friends/family with horses showed more empathy for horse riders.
- Positive empathy development primarily through; word of mouth, long term exposure to horses and negative experience with horses
- Secondary information sources can lead to erroneous ideas about horse riders.

“You know in cowboy and Indian films they can shoot arrows from the horse, because the horse is able to think about what it is doing and helps the rider... I thought with a horse you would get an extra bit of safety because the horse can understand what the car is (Student Driver “B” Group 1).”

Conclusions

- Two sides to the story. Need to undertake research on both motorists AND vulnerable road users to understand how they interact.
- Horse riders are different to other vulnerable road users, too simplistic to lump them together in policy and planning
- Road is a shared space; social interactions are important.
- Role of emotion, empathy and attitudes potentially important influences on driver behaviour.
- Most bad/risky driver behaviour is not planned. It occurs due to; deficit in knowledge/skills, limited attention span (autopilot), desire for self preservation (perceived vulnerability) or an emotional reaction.
- Driver perceptions of relative vulnerability important implications for other vulnerable road users which ride/drive defensively (Walker 2007)

Recommendations

- More inclusion of horse riders as road users in formal training to address driver knowledge deficit.
- Address driver skills deficit in formal training. Focus on forward planning and overtaking. Narrative driving may be helpful.
- Education campaigns should be based on; encouraging pro-social behaviour, developing empathy with other road users. Word of mouth is a potentially important tool. Encourage riders to talk to friends/family about their experiences.
- Develop equipment for horse riders which may provide a 'nudge' for drivers on autopilot : Reflector sticks.
- Reconsider whether vulnerable road users should be advised to ride defensively.



Thoughts for the Future/Further Research

- Effect of in vehicle technologies (i.e. which reduce driver effort and promote a “carcoon”) on driver behaviour around vulnerable road users.
- Do narrower carriageways benefit vulnerable road users?
- Should vulnerable road users be advised to ride defensively?
- Role of empathy between road users and understanding how it is developed requires further research.