

Does assessment of hazard perception add predictive value?

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The case for hazard perception testing

- Hazard perception is universally recognised as a core driving skill
- The inclusion of hazard perception assessments is popular

BUT

- Few countries have introduced hazard perception
- The evidence for the value of hazard perception testing is ambiguous
- It is not clear what is the best way to assess hazard perception
- Assessment using high fidelity simulations is expensive

What should hazard perception tests cover?

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- Hazard detection
- Threat appraisal
- Action selection
- Implementation

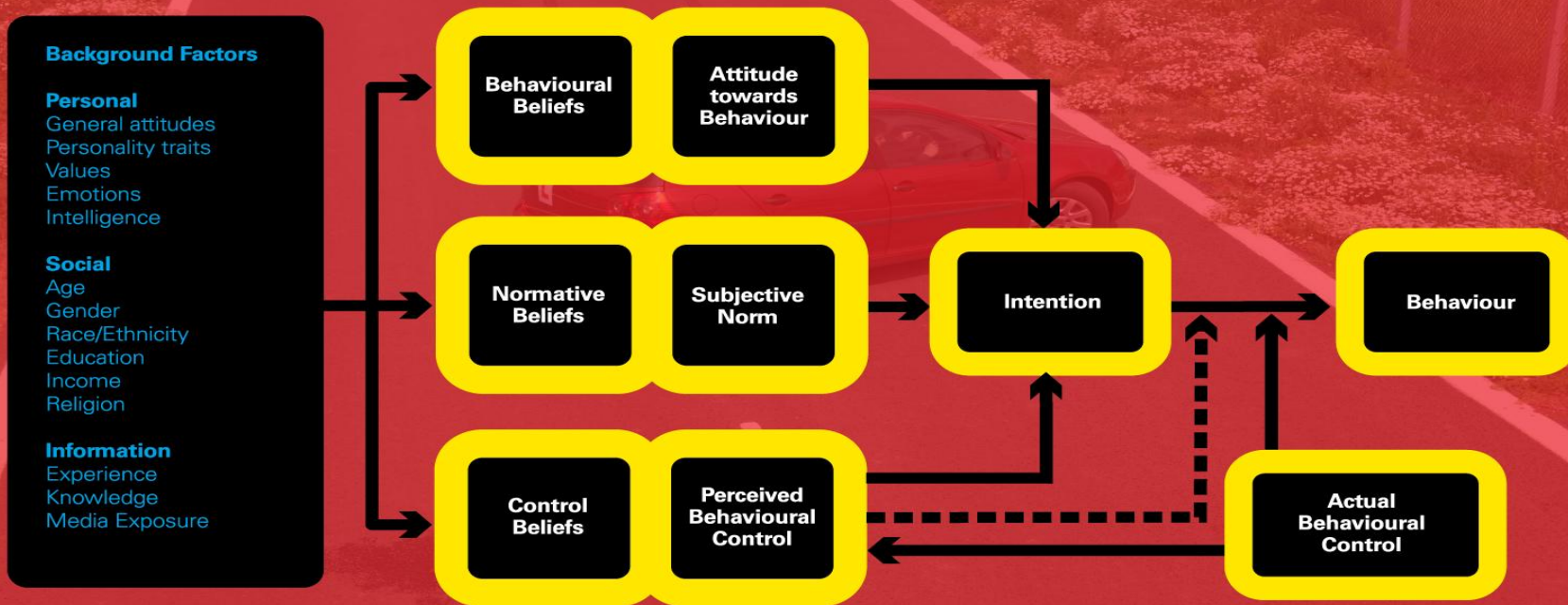
Based on the model presented in Grayson, Maycock, Groeger and Field (2003)

Example of test scenario

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Underlying Model - The theory of planned behaviour (Ajzen 2002)



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Demographics of respondents in CAS sample

Gender	N of drivers
Female	503
Male	1515
Total sample	2477
Total drivers	2052

Age	N of drivers
17 – 21 years old	156
22 – 30 years old	174
31 – 40 years old	367
41 – 50 years old	640
51+ years old	680

Learning and experience

Driving Group	N
Novice drivers	182
Experienced drivers	1065
Professional drivers	72
Professional blue-light drivers	77
Approved Driving Instructors	533
Driving examiners	126

Who taught them to drive	Yes	No
Driving Instructor	1878	177
Parent	693	1362
Friend	125	1930
Other relation	105	1950

Our approach to the analysis

Step 1: Demographics	Step 2: Learning experience	Step 3: Driving experience	Step 4: Hazard perception test	Criteria
Gender	Who taught you?	Time held licence	Personal attitudes	Accidents (your fault)
Age	How many lessons?	Driving group	Social norms	Accidents (others' fault)
Nationality	Where did you learn?	Type of licence	Behavioural control	Minor offences
	How many tests?	Use of car	Intentions	Serious offences

Results of our analyses

	Accidents own fault	Accidents others' fault	Parking fines	Bus lane	No insurance	Speeding	Dangerous driving	Drink driving	TOTA L
Step 4: Hazard Perception									
Personal Attitudes				1					1
Social Norms		2							2
Perceived Behavioural Control			1				1		2
Behavioural Intentions	2	2				1		1	6
Car use: to get to social events	1		1	1		1		1	5
Car use: enjoy driving							1		1
Car use: shopping				1					1
Driving frequency		2	1				1		4
Perceived Behavioural Control			1			1		2	
Behavioural Intentions	1	2				1	1	5	

- **How you learn really matters**
- **So does who you learn with**
- **Experience and why you drive are also predictors**

HOWEVER

- **Hazard perception testing still adds value**
- **Testing needs to cover all aspects of hazard perception**

Thank you

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