

Travelling Green

A Habit and TPB Approach in Understanding Active Travel Behaviour

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PhD student



Travelling Green Overview

WHAT

- **School-based** resource
- Designed to increase **Active Travel**
- Components delivered over **6 weeks**:
 - Teacher's lesson plans
 - Goal setting exercise
 - Charting travel mode
- Available to all schools in Scotland



Travelling Green Overview

The Travelling Green Evaluation

- ▶ Long term (Pre, Post 5 and 12 Month)
 - Seasonality
 - Deprivation
- ▶ Multiple measures
 - Child Questionnaire
 - Parent Questionnaire
 - Pedometer
 - Accelerometer
 - GPS



Travelling Green Overview

The Travelling Green Evaluation

- ▶ Part of a wider evaluation team (4 members)
- ▶ PhD Research focus:

A Habit and TPB Approach in
Understanding Active Travel Behaviour



PhD Paper Outline

PAPER 1 Measurement of Habit

Investigation of the measurement properties (validity and reliability) of SRHI as a measure of habit in children's travel behaviour (walking and car/bus use).

Measurement

PAPER 2 Measurement of TPB constructs

Investigation of the measurement properties (validity and reliability) of Theory of Planned Behaviour components.

Understanding behaviour

PAPER 3 Model Testing

Investigation of active travel behaviour using the TPB and Habit.

PAPER 4 Intervention Testing (TPB and Habit)

Investigation of the effect of the TG intervention on the main outcome variables (TPB variables).

Changing behaviour



Today's Focus: Paper 3

Title: Predicting active school travel: The role of planned behavior and habit strength

Authors: Murtagh, S., Elliott, M.A., Rowe, D.A., McMinn, D., & Nelson, N.N.

Journal: *International Journal of Behaviour, Nutrition and Physical Activity*



Background

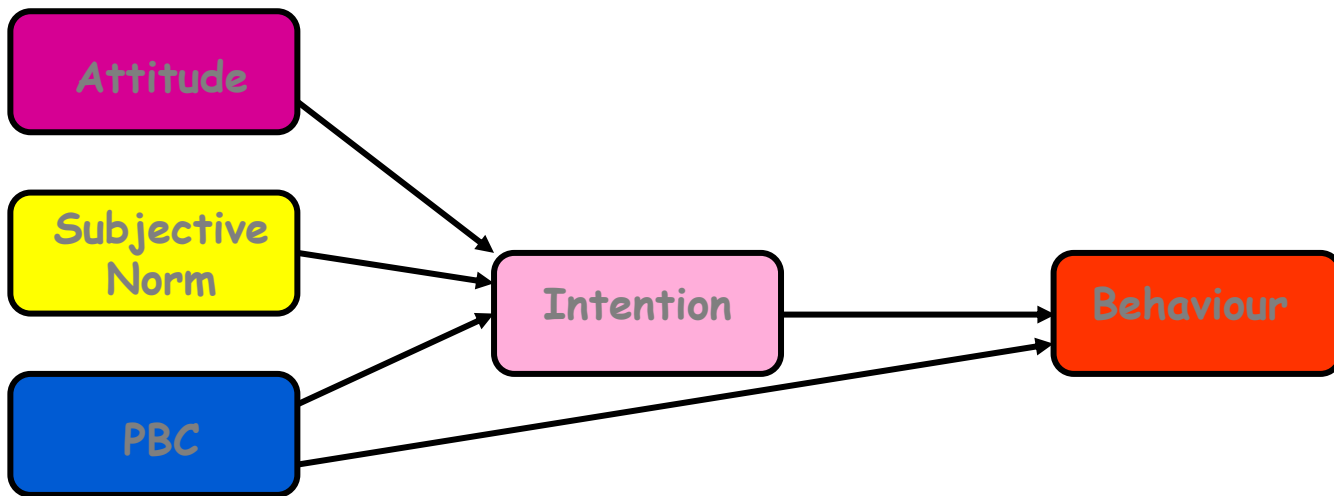


Figure 1. The Theory of Planned Behaviour (Ajzen, 1991)



Background

- Strong support for predictive validity TPB.
- However, substantial variance in both intention and behaviour



Habit

Lack of inclusion

Equated with behavioural frequency

However, disregards important characteristics
(i.e. Automaticity)

Self Report Habit Index (Verplanken & Orbell, 2003)

- Automaticity
- Self-identity
- Behavioural frequency

Objective: To test the extent to which habit strength augments the predictive validity of the TPB in relation



Methods

Participants:

- ▶ Participants (N = 126 children aged 8-9 years old; 59% males)
- ▶ Five primary schools in the west of Scotland

Measures:

- ▶ TPB Variables: Self report questionnaire for 'walking to school'
- ▶ Habit: Self-Report Habit Index (SRHI) for a) walking habits and b) car/ bus use habits
- ▶ Behaviour: Actigraph GT1M (Steps)



Results

▶ **TPB accounted for:**

- 41% of the variance in intention
- 10% of the variance in Behaviour

▶ **Addition of Walking habit and car/bus habit:**

- Increased explained variance in **intention (6%)**
- Increased explained variance in **behaviour (6%)**
- PBC and both walking and car/bus habit independently **predicted intention.**
- Intention and car/bus habit independently **predicted behavior.**



Conclusion

- TPB provides a good account of children's active school travel
- Habit strength increases the predictive validity of the model
- School travel is controlled by both intentional and habitual processes.



What DOES this all mean?

Changing behaviour...

➤ **IN PRACTICE**, interventions should...

➤ **1. Decrease** the habitual use of motorized transport for travel to school
AND

➤ **2. Increase** children's intention to walk



HOW, can they achieve this...

1. Decrease the habitual use of motorized transport for travel to school



**Habit discontinuity hypothesis
(Verplanken & Wood, 2006)**

HOW, can they achieve this...

2. Increase children's intention to walk

➤ via increases in perceived behavioral control and walking habit, and decreases in car/bus habit).



Bandura, 1997

FUTURE RESEARCH..

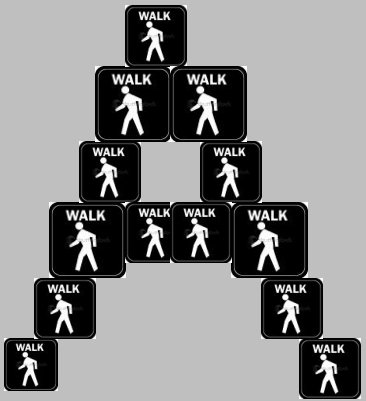
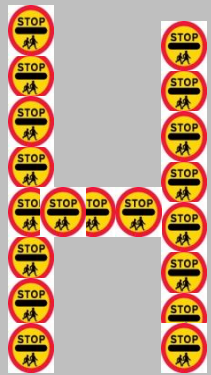
WE NEED TO KNOW....

- How effective are we at changing reasoned decision making

AND

- HABIT: BREAKING and FORMING...
 - Time take
 - Strategies
 - Facilitators





For listening...

Questions....



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