

Using Theories of Behavior Change to Explain Teenagers' Attitudes to Cycling

Jillian Frater, PhD Candidate,
University of Canterbury,
Christchurch, New Zealand

Is Cycling too Uncool for School?





Overpass for cyclists and
walkers – Pacific Highway,
Brisbane, Australia



The brain

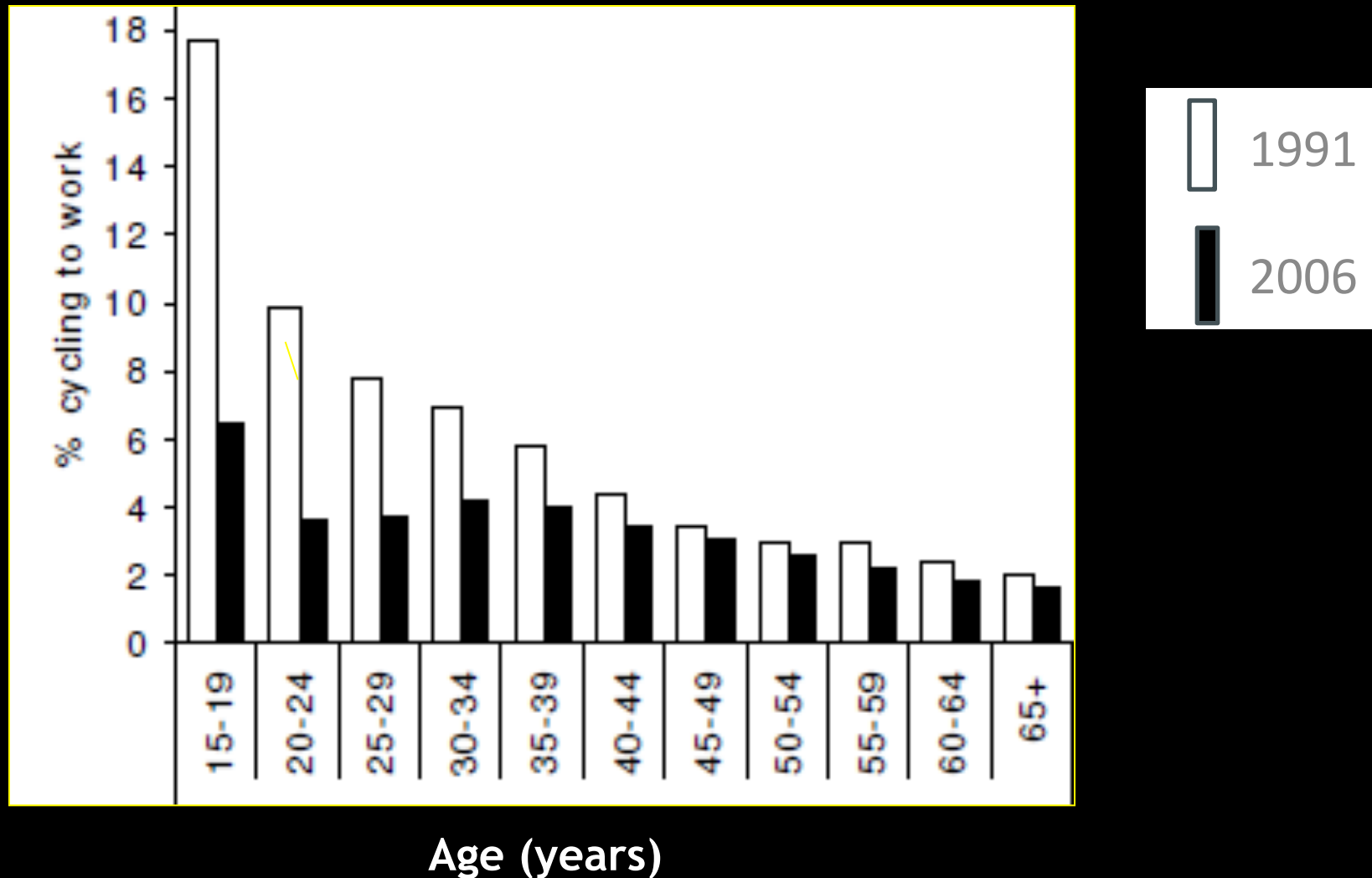
“Christchurch is the city of cycling, with, more people biking here than any other city in New Zealand.”

Opportunities

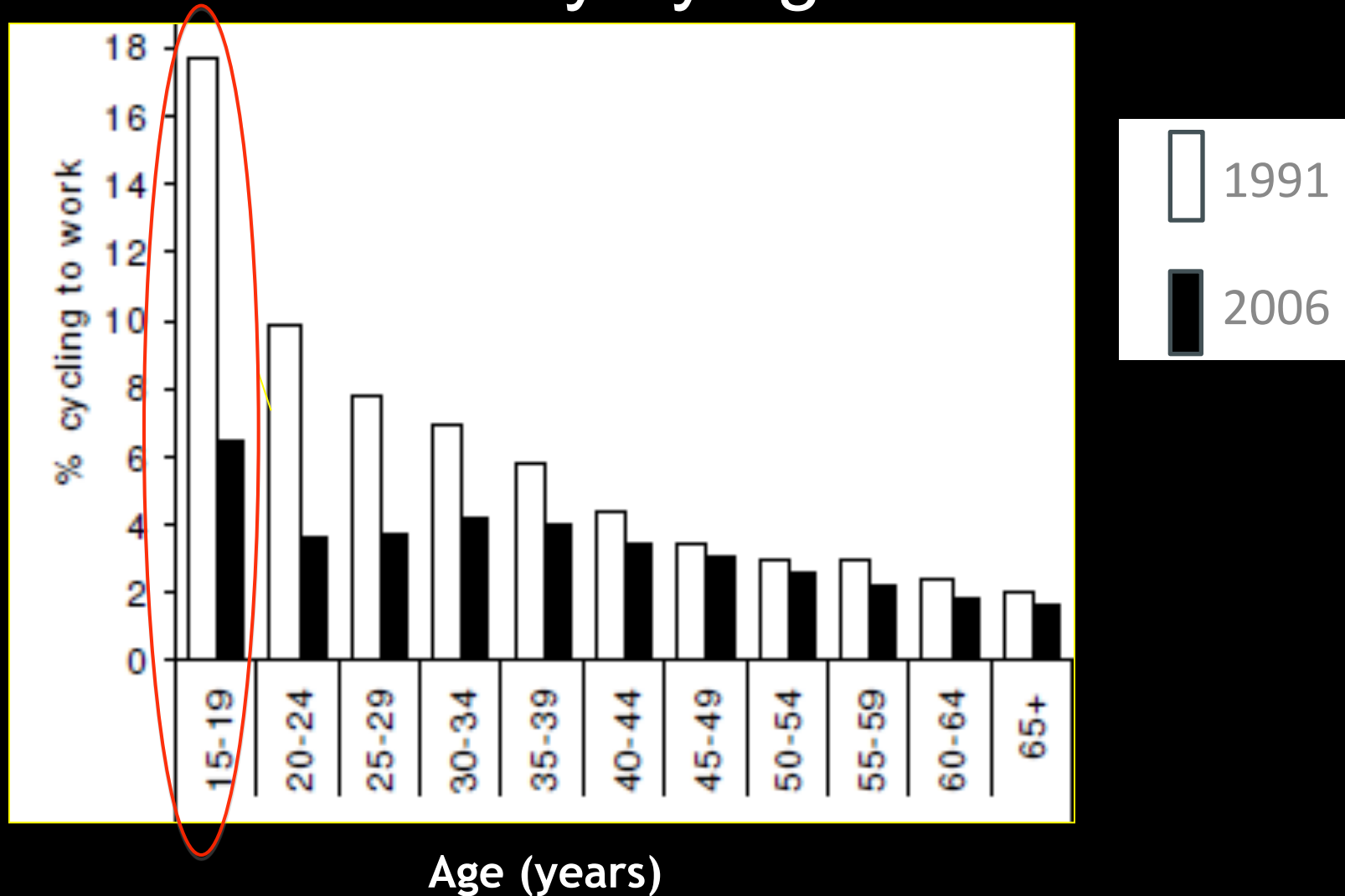


Photo by Dean Kozanic

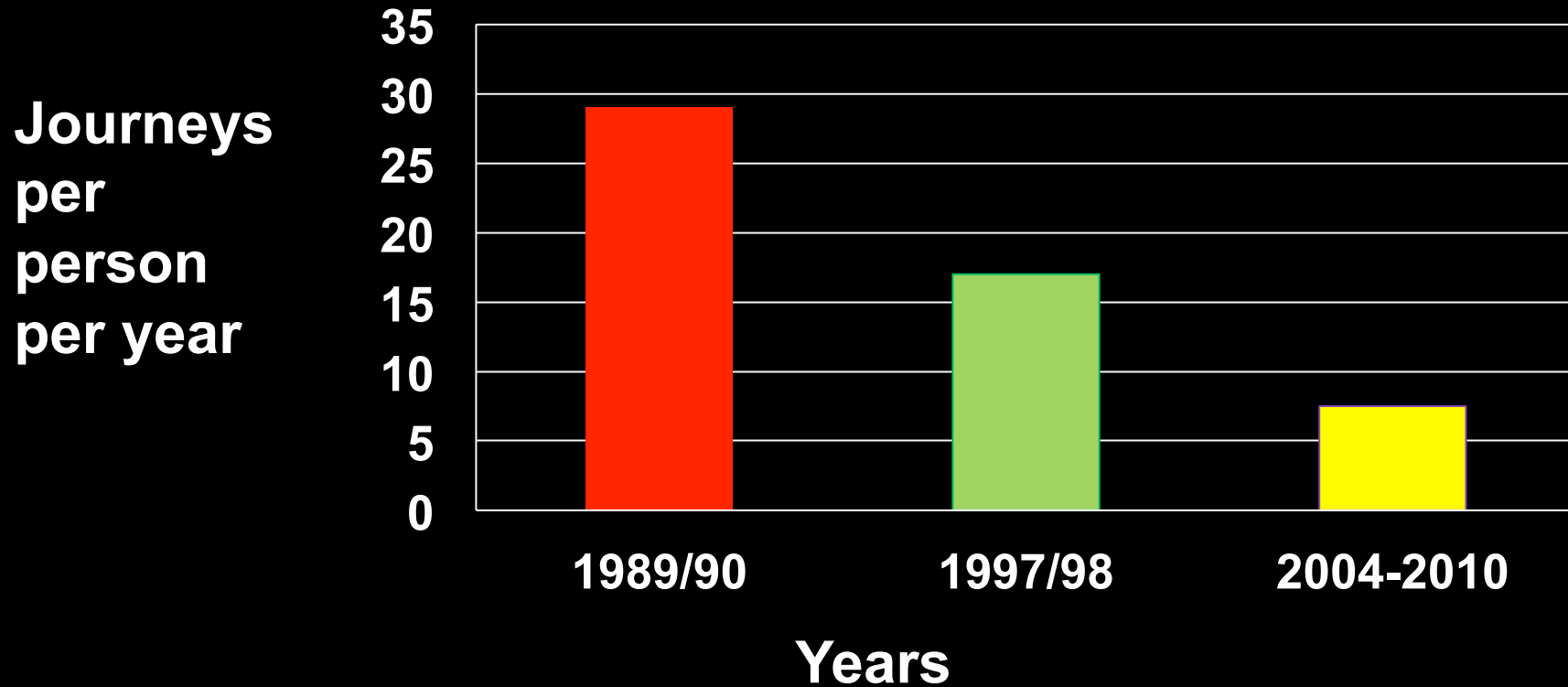
Proportion of males in NZ who cycled to work on census day by age 1991-2006



Proportion of males in NZ who cycled to work on census day by age 1991-2006



Travel to school by bicycle- ages 13-17 (girls and boys)



Source: NZ Household Travel Survey – Comparing Travel Modes –Ministry of Transport



Bike racks in the 1980s

H Mackie (2009). 'I want to ride my bike': overcoming barriers to cycling to intermediate schools, NZ Transport Agency research report 380.



Bike rack - 2008

H Mackie (2009). 'I want to ride my bike': overcoming barriers to cycling to intermediate schools, NZ Transport Agency research report 380.

Improve
people's health

Improve Air
Quality

Improve
Social
Capital

Reasons to
increase
the mode share of
cycling

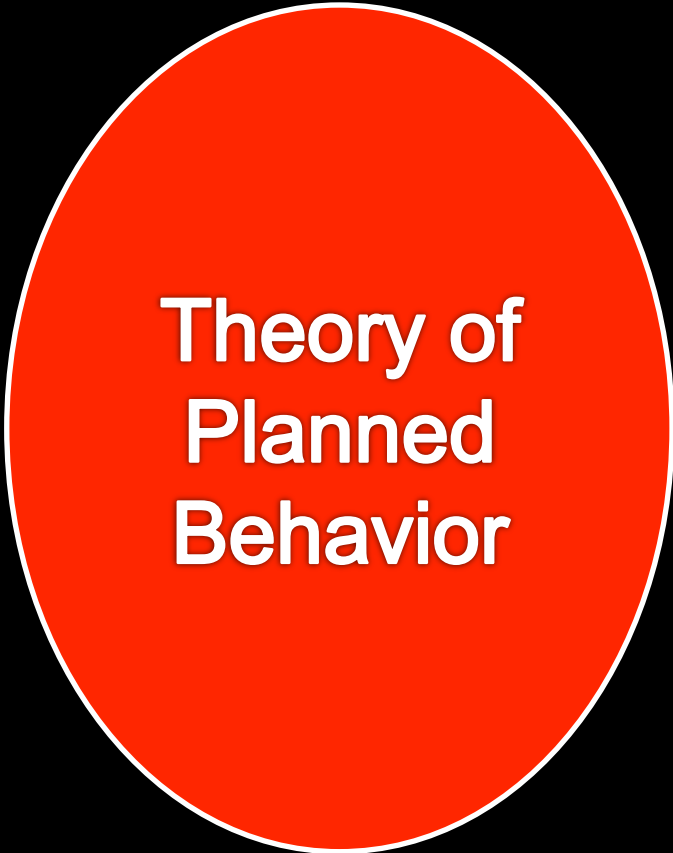
Reduce
Congestion

Reduce the
effects
of Peak Oil

Decrease
the rate of
Global Warming

Two Theories of Behavior Change

-



**Theory of
Planned
Behavior**

Azjen (1991)



**Prototype
Willingness
Model**

Gerrard et al. (2008)

Theory of Planned Behavior



Behavioral Intention

Behavior

Theory of Planned Behavior



Attitudes



Behavioral Intention

Behavior

Theory of Planned Behavior



Attitudes



Subjective
Norms



Behavioral Intention

Behavior

Theory of Planned Behavior



Attitudes

Subjective Norms

Perceived Behavioral Control

Behavioral Intention

Behavior

Prototype Willingness Model



Attitudes
(percieved
vulnerability)



**Subjective
Norms**
(peer's
behavior)



**Risk
Images**

Prototype Willingness Model



Attitudes



Subjective Norms



Risk Images

Behavioral Intention

Behavioral Willingness

Risk Behavior

Explaining Teenagers' Attitudes to Cycling



Survey



Staff
interviews



Focus
Groups

Subjective Norms

Image



Jillian Frater, PhD candidate, University of Canterbury,
Christchurch, New Zealand.
jillian.frater@pg.canterbury.ac.nz.

With thanks to my supervisors: Professor
Simon Kingham, Dr David Conradson and Dr
Roeline Kuijer.

References

AZJEN, I. (1991) The theory of planned behavior.
*Organizational Behavior and Human Decision
Processes*, 50, 179-211.

GERRARD, M., GIBBONS, F., HOULIHAN, A. E.,
STOCK, M. L. & POMERY, E. A. (2008) A dual-
process approach to health risk decision making: The
prototype willingness model. *Developmental Review*,
28, 29-61.

Proportion of people who walked to work on census day by age and gender 1991-2006

TIN TIN S, WOODWARD, A., THORNLEY, S. & AMERATUNGA, S. (2009) International Journal of Behavioral Nutrition and Physical Activity. *International Journal of Behavioral Nutrition and Physical Activity*, 6, 64.

