

Traffic and Transport Psychology

The seductiveness of air travel

1

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Overview

Growth in traffic and transport psychology

Motivations for flying

Behavioural change

Conclusions

Change in Philosophy: The growth of traffic and transport psychology



The growth of social science in transport studies

Growing realisation that traffic and transport needs to be studied in a social context

- Tradition, history
 - Epistemology: “positivist approach” in natural sciences into other disciplines
 - (Civil) Engineering has been a dominant leader in transportation studies in the past
- Growing role for social science including
 - psychology (traffic and transport psychology – Steve Stradling, Ray Fuller, Ian Walker),
 - sociology (new mobilities paradigm – John Urry, Laura Watts)
- More complex than input-throughput-output
 - People are dynamic, changing, active not reactive (e.g. Predict-provide)
 - People are not rational (e.g. can’t just give them information and they will act)
 - Most journeys now made were never made by other modes (Urry)
- Perhaps engineering has come to an end – how much more can it do?
 - Engineer our way out of problems without understanding how people use/adhere/accept such technology
 - Failure to understand the side-effects
- Change in relationship between state and people and a realisation that people need to be encouraged not forced
 - Behavioural change (see <http://www.dft.gov.uk/pgr/scienceresearch/social/behaviour-changes/%20>)
 - Nudges (Thaler and Sunstein, 2008, 2009)

Social nature of transport

View traffic and transport environment as a social situation

- Haglund and Aberg (2000)
 - that traffic and transport should be viewed as a social situation where drivers interact and influence each other

- O'Connell (2002) states the design and construction of the road and traffic system
 - “must not be based on an erroneous model of humans as abstract rational actors, isolated from their social context and operating on purely ‘objective’ criteria” (pg. 201).

Haglund, M. & Åberg, L. (2000). Speed choice in relation to speed limit and influences from other drivers. *Transportation Research Part F*, **3**, 39-51

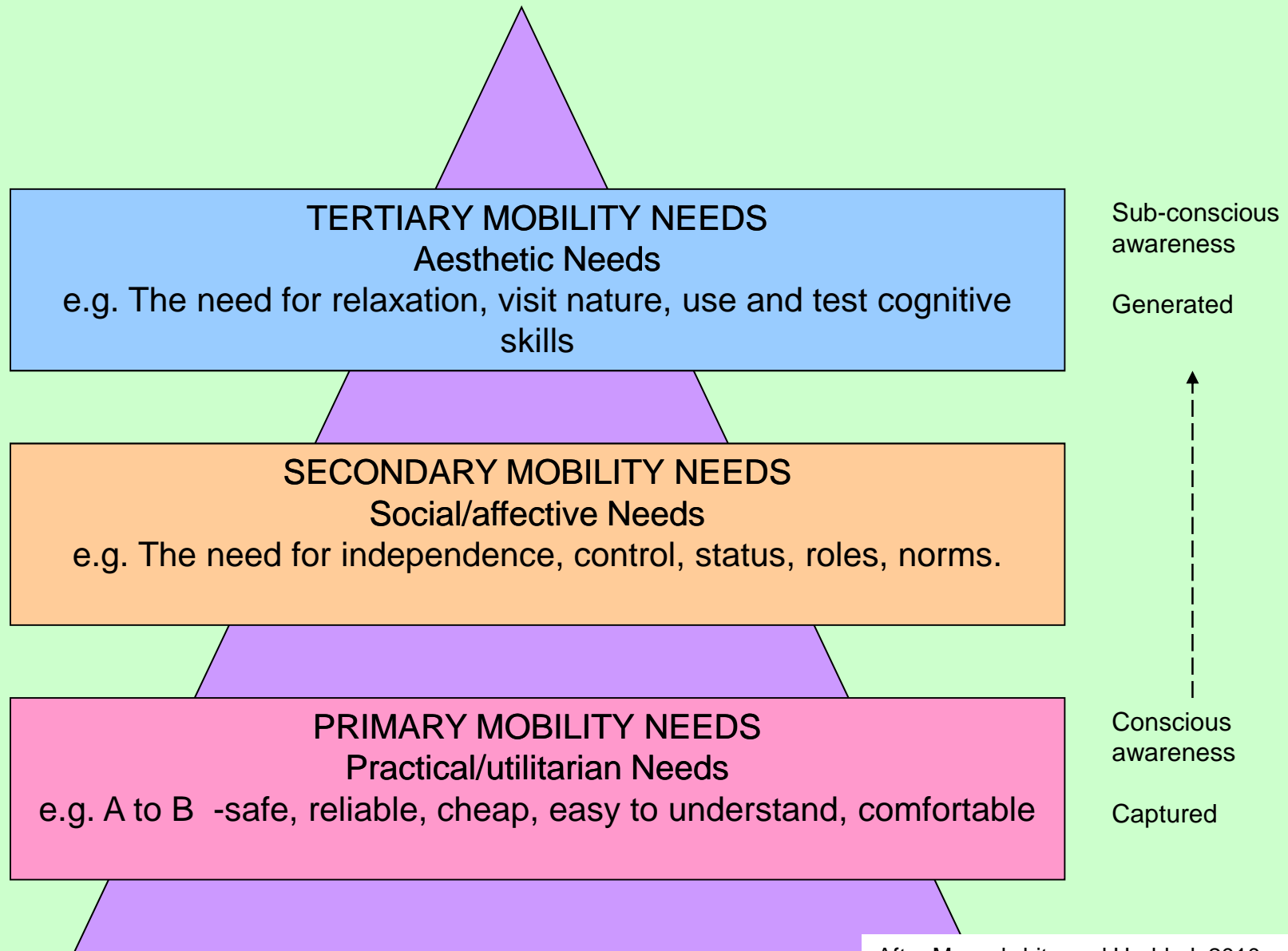
O'Connell, M. (2002). Social psychological principles: 'The group inside the person'. In R. Fuller & J.A. Santos (2002) *Human Factors for Highway Engineers*, Amsterdam: Pergamon, 201-215



Motivation for travel

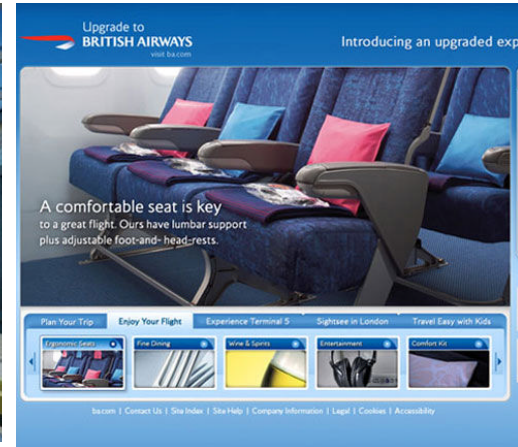


Mobility Needs



After Musselwhite and Haddad, 2010

To understand travel by air need to focus on practical elements



Cost

Terminal improvements

Accessibility
Safety
Information

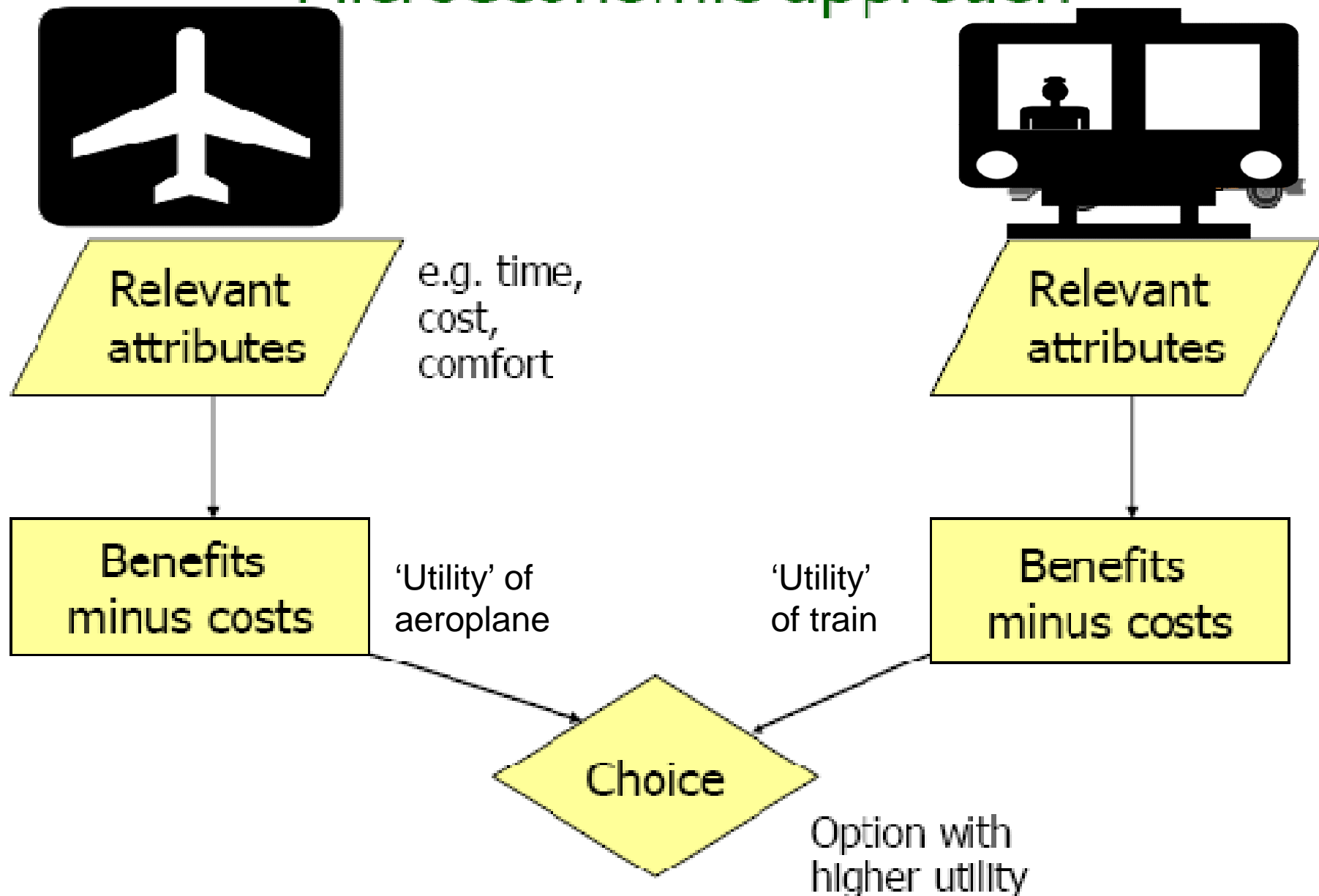
Aeroplane

Comfort
Accessibility
Safety

Speed?



Microeconomic approach



Traditional Models of Attitude Change

■ Linear Deficit Model

(Personal) travel plans



(Source: Kollmuss and Agyeman 2002)

■ Rational Choice Model

Road pricing



More socially (ir)rational

Practical motivation (A to B, cost, convenience)

Values (freedom, independence, need, necessity)

Aesthetic motivation (discover, master, achieve, relax)

Social context

Identity

- What should I do to create a certain image about myself

Norms

- What's expected of (someone like) me
- What would my friends do?
- What do others do?
- How would it look if I did this?

Environmentally
conscious and
aware V.

Modal choice

Being well
travelled

Seducing Secondary and Tertiary Mobility Needs



Changing behaviour
Individuals are different
and behave within
groups



Person Typologies

Segmentation Research

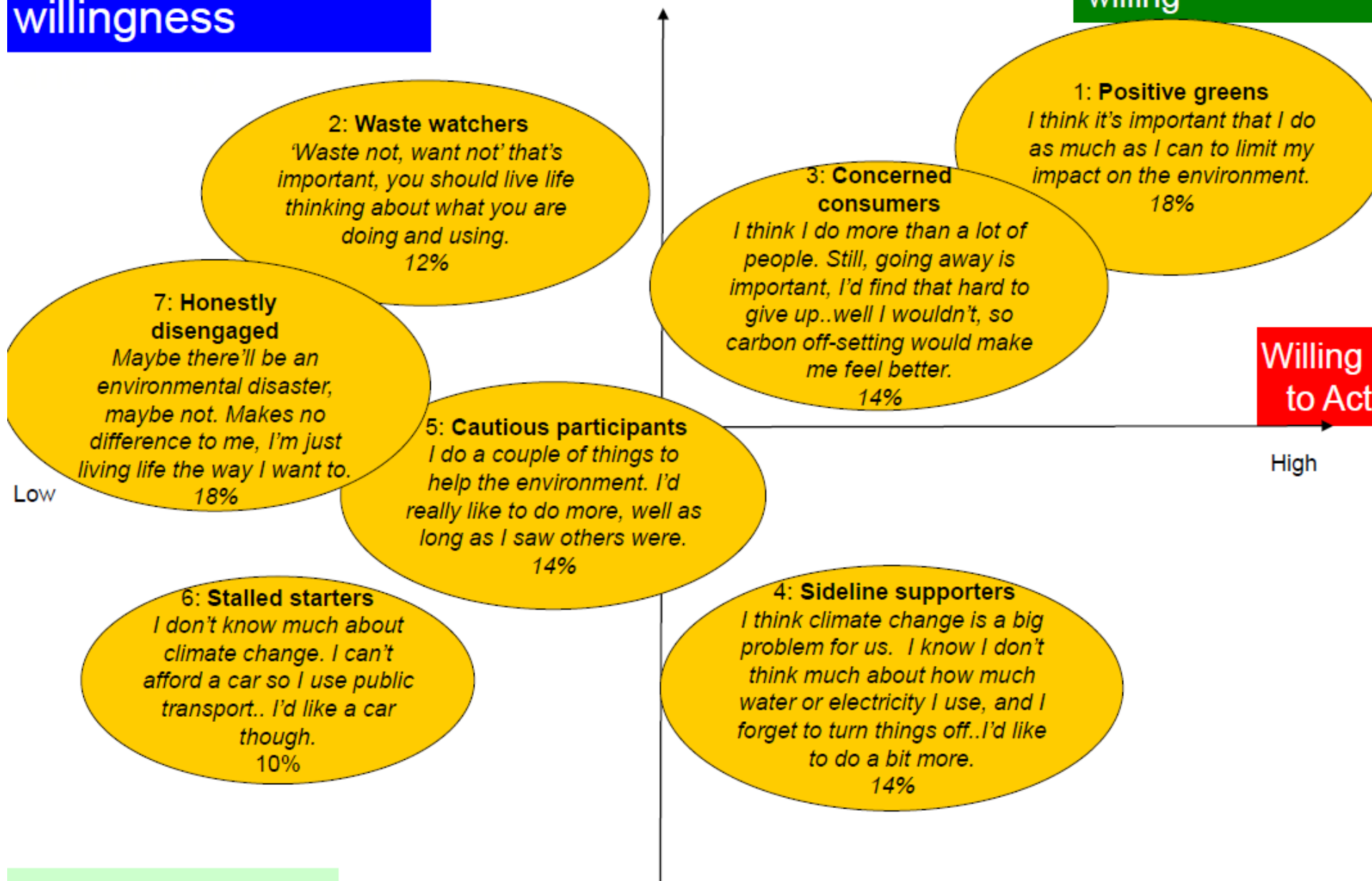
- Average is of little use. Need different answers for different people.
- A-priori versions – age, gender, socio-demographics, user
- Post-hoc – attitudes, behaviour



Segment
willingness

Ability to act High

High ability and
willing

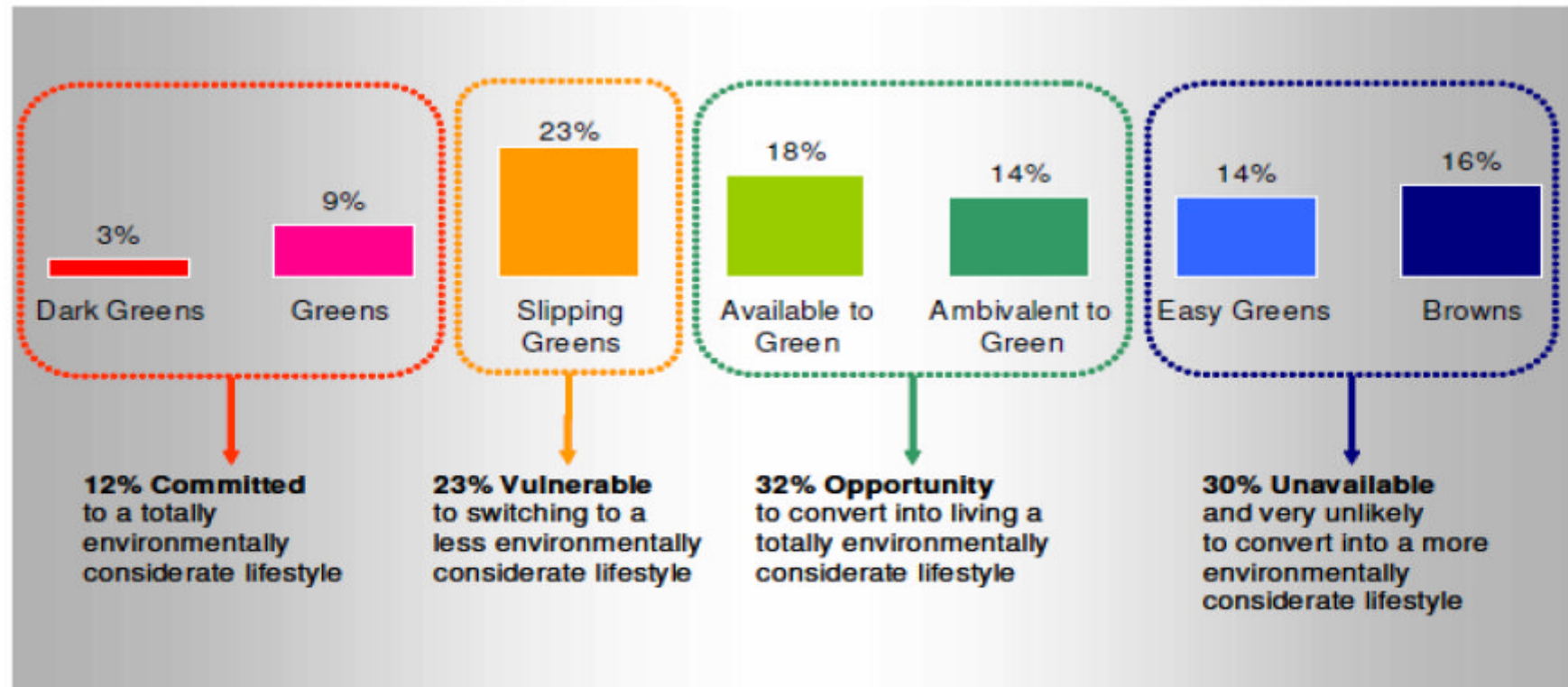


Low potential and
unwilling

Low

Source: DEFRA (2008)

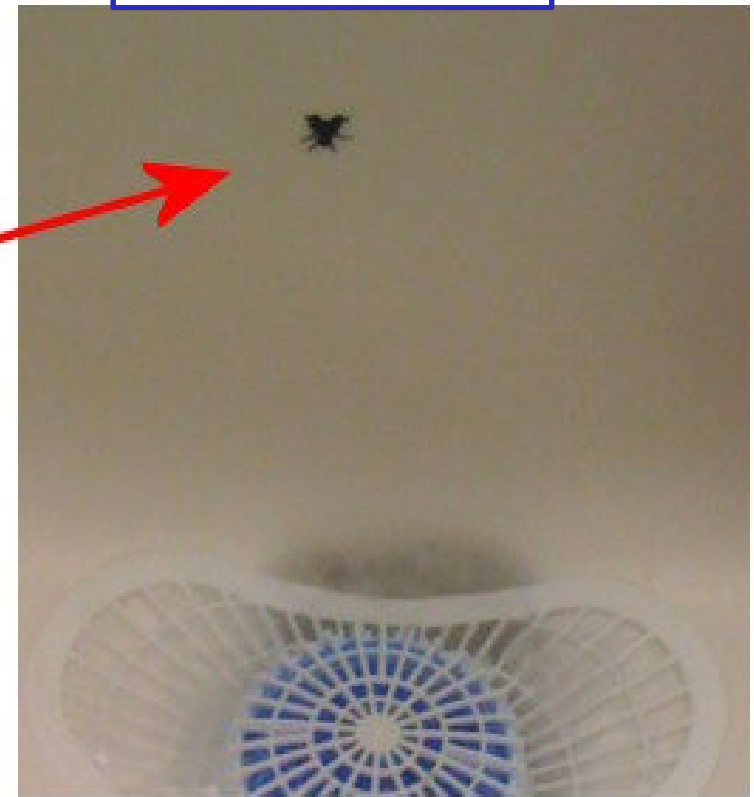
Social marketing and environmental commitment (Hjelmar 2005)



Changing the context to affect change: Nudging



An example of
NUDGE
Amsterdam's
Schiphol airport



(Thaler and Sunstein, 2008, 2009)



Changing behaviour utilising the social context



Feedback and social comparison

- Motivation for change
 - Can this be altered?
 - Knowledge/"dressing up"
- Feedback
 - Immediate, quickly, direct to the behaviour
 - Reward better than punishment, though both together better still
 - Framing of reward-punishment important
 - Explicit reward; implicit punishment
- Friendly social context
 - Support
 - Norms
 - Competition

WeightWatchers

OUR RECIPES

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EXCLUSIVE

CLICK HERE FOR **FREE** PERSONAL ASSESSMENT

Jenny McCarthy
Jenny got her pre-baby body back on Weight Watchers.

Be an After. Stay an After.

BEFORE	AFTER
LOST 65.8 LBS	
Name: Michelle	Name: Michael
Age: 24	Age: 33
Height: 5'4"	Height: 5'6"
Was: 195.6 lbs	Was: 199.4 lbs
Lost: 65.8 lbs*	Lost: 24.4 lbs*
Weight: 129.8 lbs	Weight: 175 lbs
As of: 1/7/2004	As of: 7/25/2002

*Results not typical.

CLICK HERE TO SAVE NOW

DeYoung, R. (1996). Some psychological aspects of reduced consumption behavior. The role of intrinsic motivation and competence motivation. *Environment and Behavior* 28, 358-409.

Nye, M. & Burgess, J. (2008). Making a difference? Evidence and explanations for durable proenvironmental behaviour change from Global Action Plan-UK's EcoTeam programme. *Environment and Planning A*

- A role for technology?
 - Very personalised travel planning
- Carbon calculators
 - Understand the feedback
 - Motivated to change?
- Road safety (GreenRoad Sensor)
- Add a social (networking) element
- Gaming
 - Can dress up the motivation, provide feedback and create social context
- Does it have to involve technology?
 - Mission:Explore

One/Games create urgent optimism. Two/Games create tight social groups. Three/Games create blissful productivity. Four/Games create meaning.

— Jane McGonigal,
Game Designer and Researcher

Chatterton, T., Coulter, A., Musselwhite, C., Lyons, G. and Clegg, S. (2009). Understanding how transport choices are affected by environment and health: views expressed in a study on the use of carbon calculators. *Public Health*, **123(1)**, 45-49

Conclusions



Conclusions

■ Social context of transportation

- Non-rational
- Need to encourage rather than restrict
- Education and the person side of engineering and enforcement

■ Seductiveness of air travel

- Practical/Utilitarian
- Psychosocial/Affective
- Aesthetic

■ Behavioural change – social marketing?

- Rational choice models
- Irrational/social context models
 - Segmentation
 - Nudge
 - Gaming



References

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