



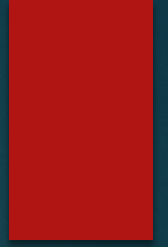
ECAS7003 Behaviour Change in Context

SESSION TWO: LECTURE ONE

BEHAVIOUR CHANGE AND THE BEHAVIOUR CHANGE
WHEEL

DR CERI PHELPS

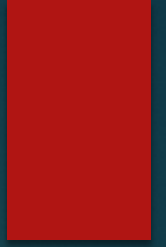
Session outline



By the end of this session you should be able to:

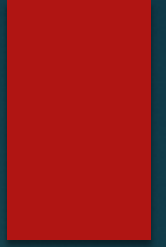
- ▶ Understand and explain the concept of the science of behaviour change & behaviour changes interventions
- ▶ Critically consider the role of psychological theory in behaviour change
- ▶ Critically discuss the role and function of the Behaviour Change Wheel

Human Behaviour: a societal perspective



- ▶ Human behaviour critical to the health and social fabric of our world
- ▶ Growing recognition that in order to achieve policy goals, need to be able to get people to behave in certain ways
 - ▶ Recognition of role of human behaviour in non-communicable as well as communicable diseases
- ▶ COVID-19 pandemic – a fascinating insight into the complexities of behaviour change

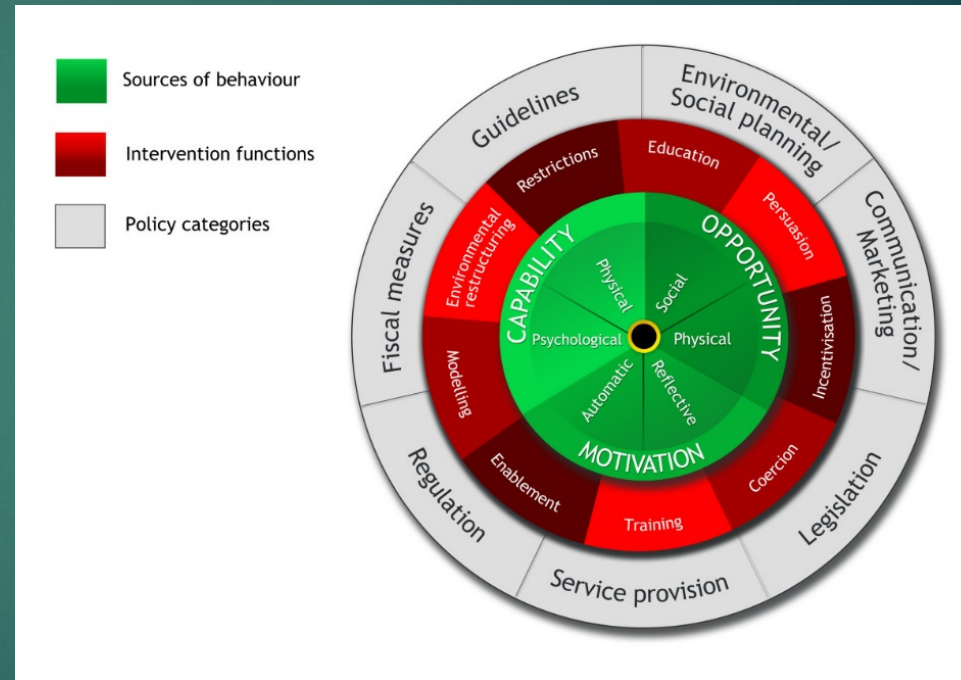
The fallacy of human behaviour change



- ▶ “Behaviour change is common-sense”
- ▶ “If people are given the right information they will change their behaviour”
- ▶ Ignores the role of attitudes, beliefs, emotions, motivations, habits....

Understanding the wider context of behaviour change

- ▶ Need to understand the wider political and societal factors that may influence behaviour change
- ▶ Can identify useful intervention strategies (functions) dependent upon the specific behaviour you are trying to influence
- ▶ *NB: important in the context of interventions targeted at socially disadvantaged groups!*





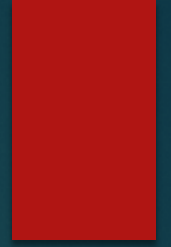
Theories of Behaviour Change

Factors influencing behaviour

- ▶ Biological factors
 - ▶ Genetics, gender, age
- ▶ Psychological factors
 - ▶ Cognitions, attitudes and beliefs
 - ▶ Emotions, motivations, desires
 - ▶ Modelling, conditioning
- ▶ Social factors
 - ▶ Demographics, SES, employment
- ▶ Cultural factors
 - ▶ Healthcare systems, cultural norms

Few theories attempt to integrate or explain all of these factors

Behaviour change & Health

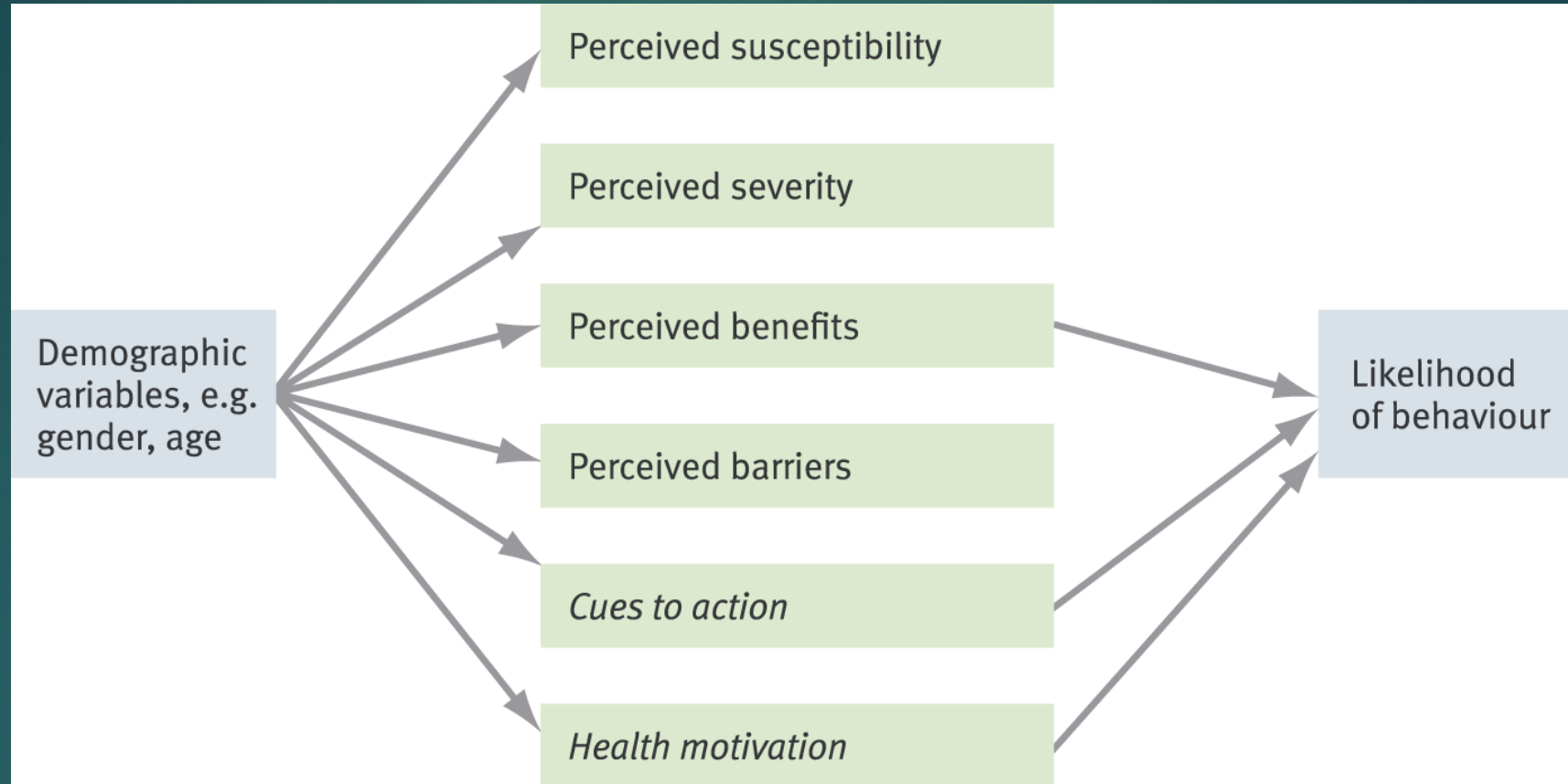


- ▶ Many of the risk factors for disease and illness are behavioural
- ▶ Ability to change behaviour key to tackling many of the health issues in society today
- ▶ Behaviours that affect our health can be categorised into:
 - ▶ Health protective behaviours (exercise, good diet)
 - ▶ Health risk behaviours (alcohol abuse, smoking, unsafe sex)
- ▶ Need to understand **why** people **choose** to behave in ways that will harm their health

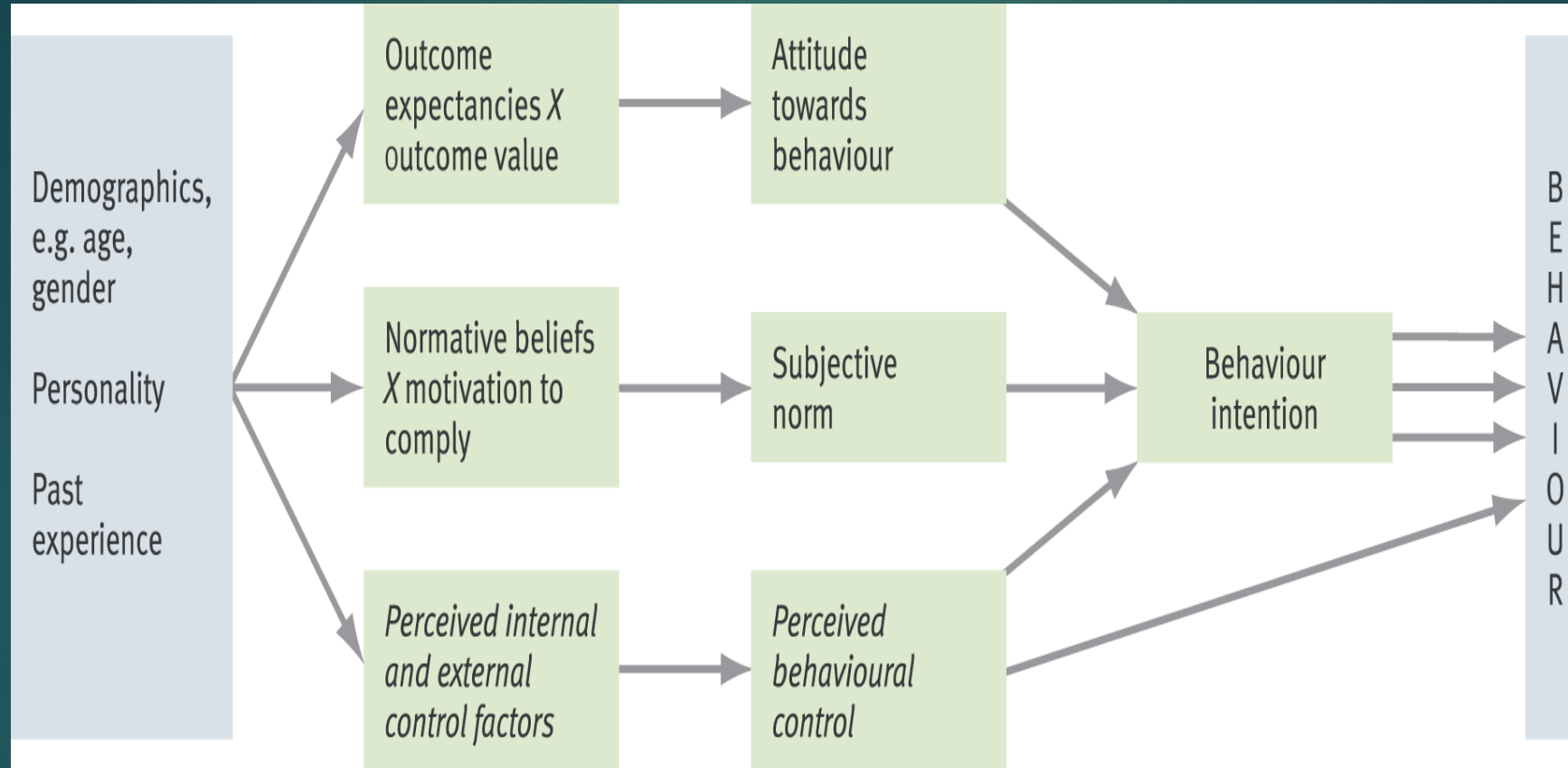
Theories of Health Behaviour

- ▶ Social Cognition Models
 - ▶ Health Belief Model (Rosenstock, 1966)
 - ▶ Theory of Planned Behaviour (Ajzen, 1985, 1991)
- ▶ Stage theories
 - ▶ Transtheoretical Model (Prochaska & DiClemente, 1984)
- ▶ Models of motivation
 - ▶ Protection motivation theory (Rogers, 1975)
 - ▶ PRIME theory (West, 2006)

The Health Belief Model (Rosenstock, 1974)



The Theory of Planned Behaviour (Ajzen, 1985, 1991)



Evaluation of TRA/TPB

- ▶ Attitudes and social norms strongly predictive of intention to engage in behaviour
 - ▶ (e.g., Conner & Sparks, 1996, $r=.67$)
- ▶ Relationship between intention and actually engaging in behaviour can be lower
 - ▶ (e.g., Conner & Sparks, 1996 $r= .50$ to $.60$)
 - ▶ Variation across studies/measures used.
- ▶ Intentions do not always predict behaviour
 - ▶ Competing intentions
 - ▶ Implementation Intentions (Gollwitzer, 1993)

Critical Evaluation of The TPB

Original model does not include direct recognition of:

- ❑ **Moral norms**
- ❑ **Anticipatory regret**
- ❑ **Self-identity**
- ❑ **Implementation intentions**
- ❑ **self-efficacy beliefs vs. perceived behavioural control beliefs**

Critical Evaluation of Social Cognition Models

- ▶ Social cognition models assume we are always rational decision-makers
- ▶ Do we always deliberately and consciously weigh up the “pros” and “cons” of a given behaviour?
 - ▶ What about behavioural choices that have become routine or automatic?
 - ▶ How easy it is change attitudes/beliefs underpinning such behaviours?
- ▶ Are our attitudes and beliefs about e.g., social norms fixed and stable?
 - ▶ May explain variability in predictive value of models

Critical Evaluation of The TPB

- ▶ Time to retire the Theory of Planned Behaviour?

Sniehotta, Presseau & Araujo-Soares (2014): critique

- ▶ Limited predictive validity

- ▶ Intention behaviour gap and “inclined abstainers”

- ▶ Behaviour change interventions based on TPB not strongly supported

- ▶ Experimental tests of TPB rare and not supportive of theory's assumptions

- ▶ Excludes unconscious influences on behaviour

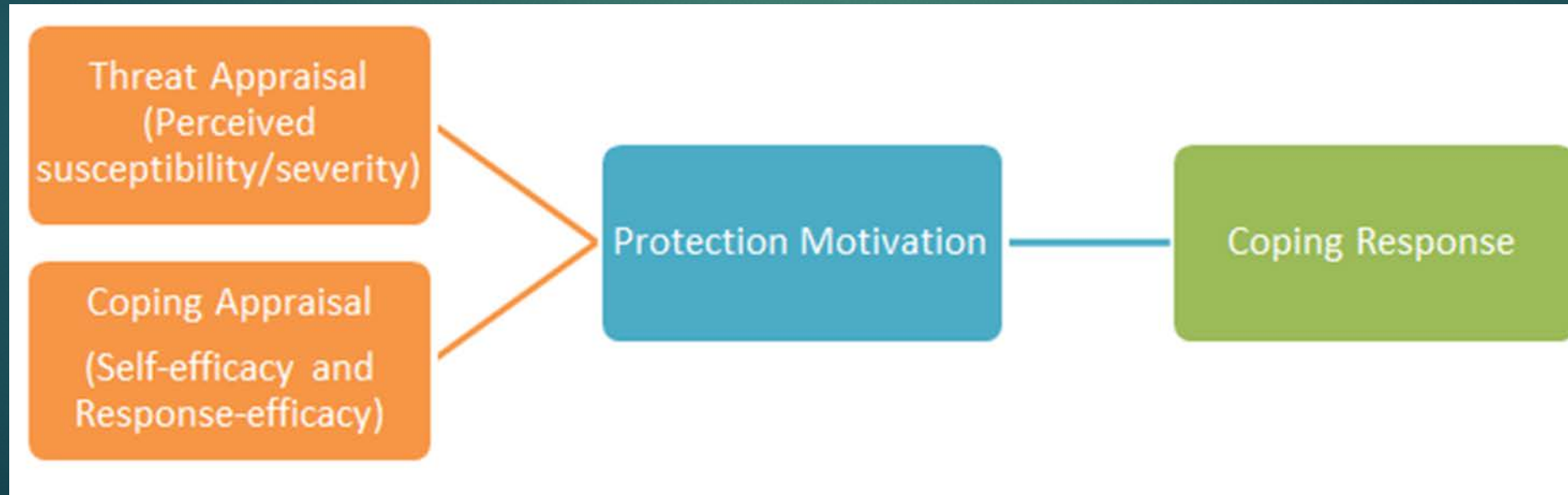
Critical Evaluation of The TPB

- ▶ Time to retire the Theory of Planned Behaviour?
Azjen response (2014) – TPB alive and well!
- ▶ Arguments are misguided and based on a poor understanding of TPB
- ▶ TPB predicts links between intentions and attitudes, subjective norm and PBC well
 - ▶ Link between intentions and actual behaviour are complex due to events occurring between intention and actual behaviour being carried out
 - ▶ Additional variables e.g. anticipated affect (guilt, regret, pleasure) can improve prediction of intentions-behaviour
- ▶ TPB does not assume people always behave in a rational manner – beliefs may be irrational or biased.
- ▶ TPB not a theory of “behaviour change” but a theory explaining intentions and behaviour

Protection Motivation Theory Rogers (1975; 1983)

A model of the cognitive processes that occur in response to messages designed to instil fear

Behaviour is the result of decision-making based on an evaluation of expected consequences of a behaviour and the value of those consequences



Protection Motivation Theory

Milne, Sheeran & Orbell (2000) Meta-analysis

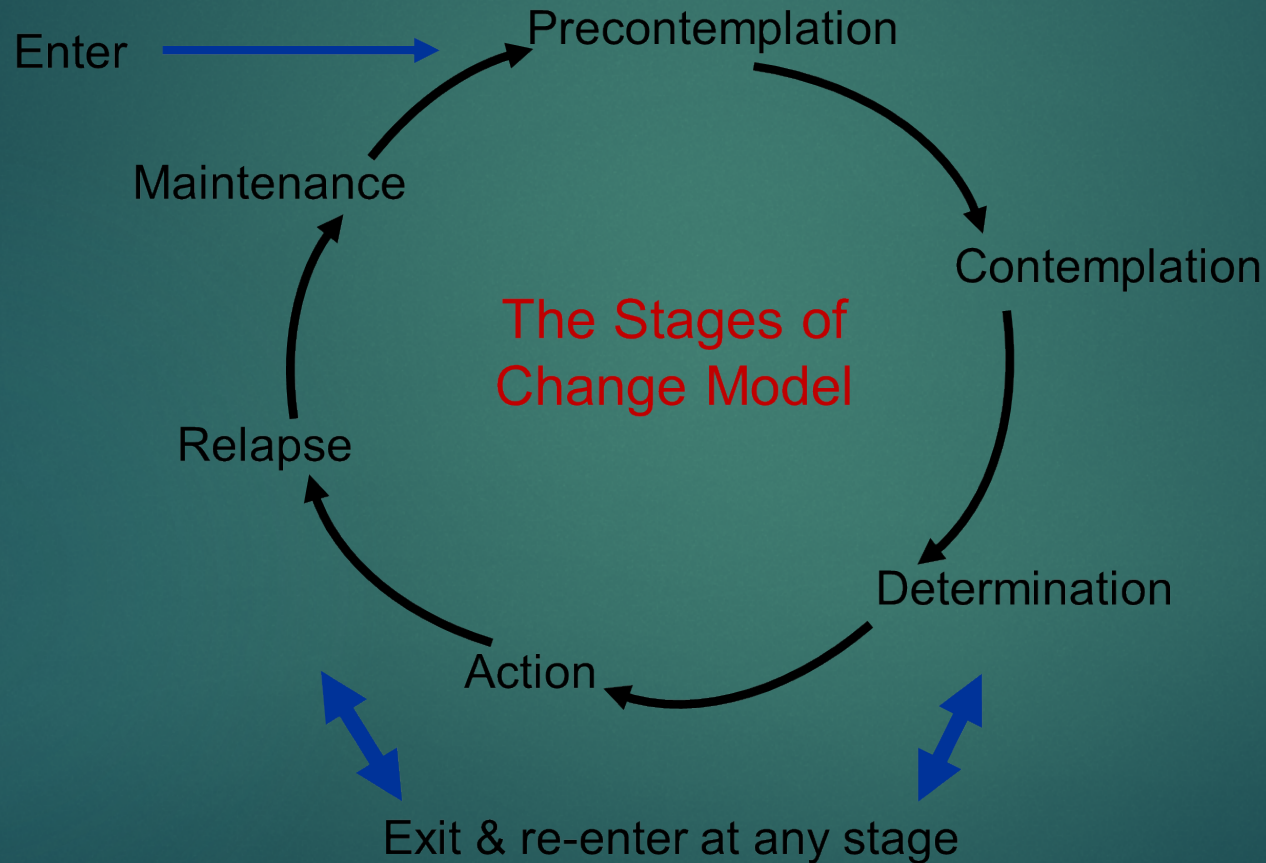
- ▶ Useful in aiding understanding of the arguments that should be contained in persuasive communications designed to produce belief change and subsequent changes in intentions and, perhaps, behaviour.
- ▶ Experimental PMT studies have demonstrated that information can be manipulated so as to successfully change beliefs.
- ▶ Role within public-health intervention programs: Smoking cessation, obesity.
- ▶ COVID-19 – could this model be useful in explaining face-covering behaviour?

Stages theories of behaviour change

- ▶ Stage theories assume that different factors are important at different stages
- ▶ Certain factors influence the individual's ability to move from one stage to the next, and these will vary from one stage to another
- ▶ Not a continuum but qualitatively different stages
- ▶ Stage theories include:
 - ▶ Transtheoretical Model (Prochaska & DiClemente, 1983)
 - ▶ Precaution adoption process model (Weinstein & Sandman, 1992)
 - ▶ Health Action Process Approach (Schwarzer, 1992)

Transtheoretical Model (Prochaska and DiClemente, 1984)

<https://www.youtube.com/watch?v=ayjXMix-nMw>



Critique of Transtheoretical Model

West (2005)

- ▶ the model is flawed even in its most basic tenet, the concept of the 'stage'.
- ▶ approach to classifying individuals assumes that individuals typically make coherent and stable plans.
- ▶ stage definitions represent a mixture of different types of construct that do not fit together coherently
- ▶ Focuses on conscious decision-making and planning processes and draws attention away from what are known to be important underpinnings of human motivation – does not take into account motives or “want”

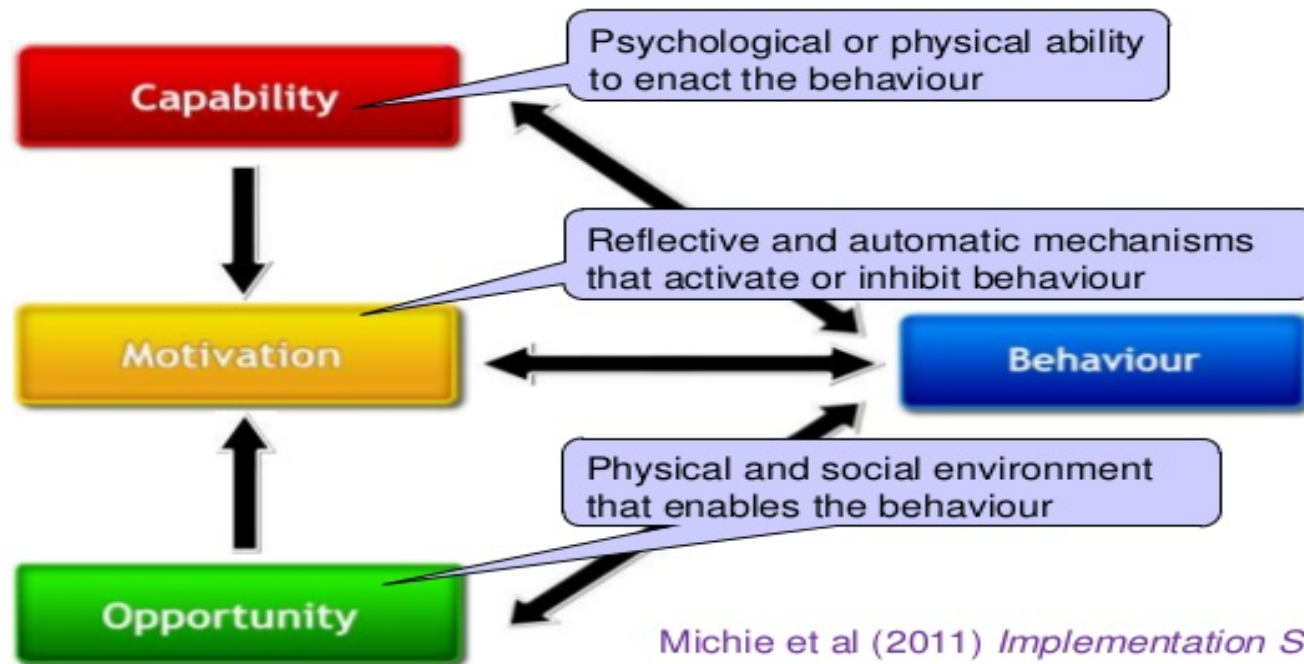
PRIME theory (West & Brown)

- ▶ A general theory of how motivation drives our behaviour
- ▶ Human motivational system has five interacting systems
 - ▶ Plans
 - ▶ Responses
 - ▶ Impulses and Inhibitions
 - ▶ Motives
 - ▶ Evaluations

“At every moment we act in pursuit of what we want most or need at that moment”

The COM-B Model

The COM-B system: Behaviour occurs as an interaction between three necessary conditions



Michie et al (2011) *Implementation Science*

Slide courtesy of Dr. Susan Michie

Pause.....Thinking time.....

- ▶ How would you use the COM-B model to identify appropriate strategies?
 - ▶ Improve capability?
 - ▶ Restrict opportunity?
 - ▶ Change motivation?
- ▶ Tackling the issue of drivers failing to adhere to the 40 MPH speed limit on Gower roads (open common land with grazing animals)



COM-B Model and Risky Driving

Capability: is the signage clear so that drivers can read the road and adjust driving?

Opportunity: can we install road bumps to reduce the opportunity to speed?

Motivation: can we encourage drivers to want to slow down e.g. to prevent unwanted animal deaths, to avoid legislation e.g., speed cameras



COM-B Model and Risky Driving

Capability: is the signage clear so that drivers can read the road and adjust driving?

Opportunity: can we install road bumps to reduce the opportunity to speed?

Motivation: can we encourage drivers to want to slow down e.g. to prevent unwanted animal deaths, to avoid legislation e.g., speed cameras

► **Which one of these do you think will be most likely to achieve a sustained change in driving behaviour?**

The Behaviour Change Wheel

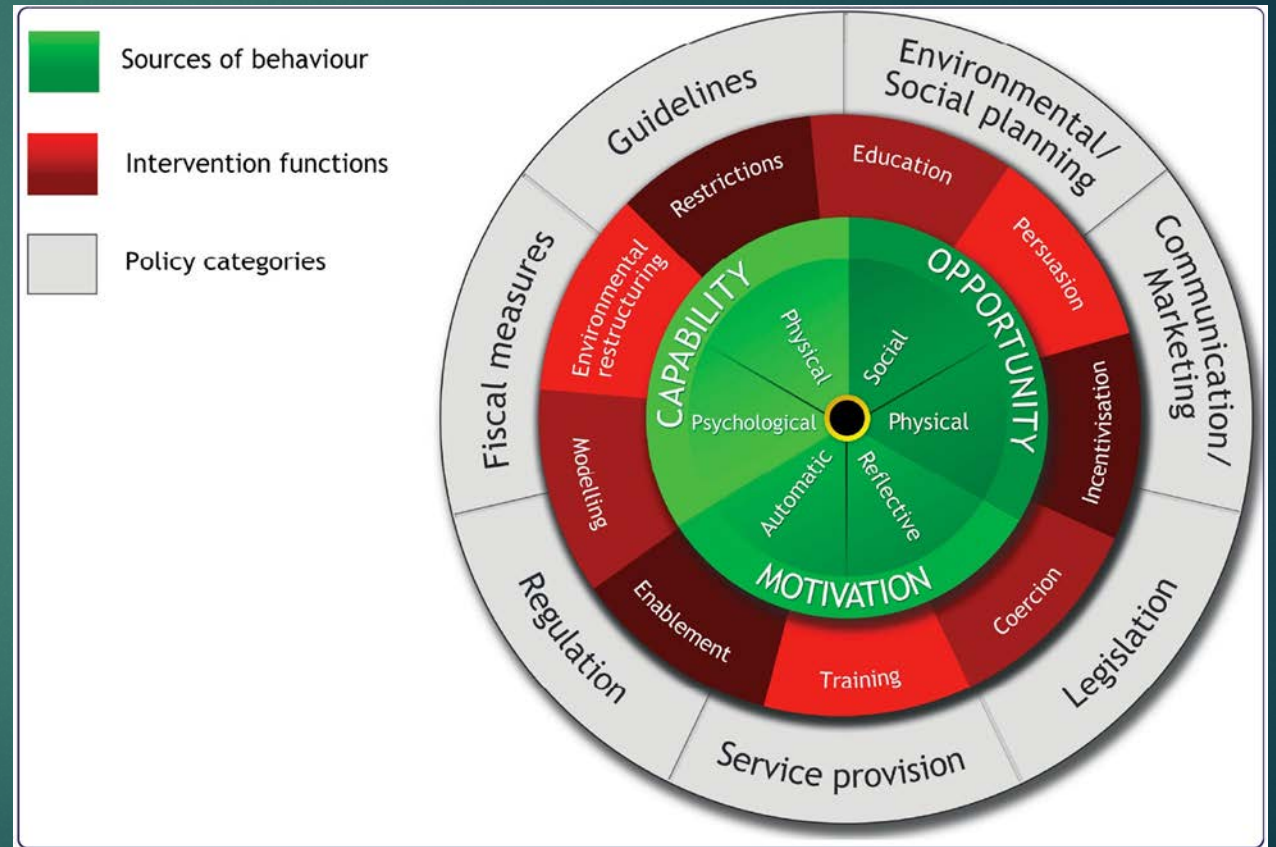
- ▶ Developed from a systematic lit review that identified 19 frameworks of behaviour change
- ▶ The review identified that none of these existing frameworks were comprehensive, tending to focus on specific factors such as attitudes, or societal factors.
- ▶ BCW attempts to integrate and synthesise the common features of existing frameworks into a broad model of behaviour.

Michie S, Atkins L, West R. (2014) The Behaviour Change Wheel: A Guide to Designing Interventions. London: Silverback Publishing.
www.behaviourchangewheel.com

<http://www.behaviourchangewheel.com/>

The Behaviour Change Wheel

- ▶ The COM-B model lies at the core of the BCW
- ▶ Identifies different intervention strategies that can be applied to any of those components of the COM-B
- ▶ Provides general intervention strategies/categories that can be linked to



Behaviour Change Wheel

<https://www.youtube.com/watch?v=XKwLplsPapc>

Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, 6(1), 42.

Conclusions

- ▶ Changing behaviour is a key aim for policy makers, healthcare providers, and academics, but successful behaviour change is a difficult challenge
- ▶ Wide range of models offering explanations of behaviour change
- ▶ The Behaviour Change Wheel provides a framework to help those designing interventions to consider all potential options linked to the COM-B model and identify the most promising strategy
- ▶ Importance of ensuring behaviour change interventions are theory-based and implemented within a strong development and evaluation framework