

'Lessons from Theory for Practice'

**Summary of Findings from
GSR Behaviour Change Knowledge Review**

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Background

- Responding to the rise of the behaviour change agenda
- Cross-govt review commissioned by GSR (HMT, MoJ, DfT, Defra, DWP, CLG, FSA, WAG, TSG)

Objectives

- Overall, to make sense of models of behaviour change, for research analysts and policy makers
 - Provide overview of relevant models and theories
 - Provide guidance on their uses and limits

Methodology

- Desk research, plus audience 'Needs Analysis'
 - Interviews with 11 departmental analysts
 - Data gathering via 18 experts
 - Review based on 109 sources
 - Peer reviews, and comments from analysts, economists, policy makers...

Key Findings

- **A distinction made between behavioural models and theories of change**
 - *Behavioural models identify the factors influencing behaviour*
 - *Theories of change show how behaviours change, and can be changed*
- **A fine distinction: easier to observe in practical guidance than in conceptual classification**
- **Understanding both bodies of theory essential for developing effective interventions**
- **As a result, practical Framework for Model-Based Interventions proposed, as Nine Principles**
- **Framework embeds behavioural models within a development process shaped by theories of change**

Review of Theory: Behavioural Models

1. Underlying Assumptions

- **Economic theory the starting point for understanding behaviour**
 - *Rational Choice theory, and utility maximisation*
 - *Preferences are 'off the model' (assumed constant)*
- **Economists note idiosyncratic decision making: 'bounded rationality'**
- **Heuristics included in principles of 'behavioural economics', merging economic and psychological understandings**
- **In psychology, rational choice as linear 'Expected Utility' models; also as (Information) Deficit models**



Review of Theory: Behavioural Models

2. Social-Psychological Factors

- **Social-psychological models the standard for behaviour change**
- **From Expectancy Value Theory (based in attitudes), becoming increasingly Adjusted (EV models), ie. less deliberative**
- **Factors inc.**
 - **Values, beliefs, attitudes**
 - **Norms**
 - **Agency**
 - **Habit**
 - **Affect**

Figure 1: Ajzen's Theory of Planned Behaviour (1986)

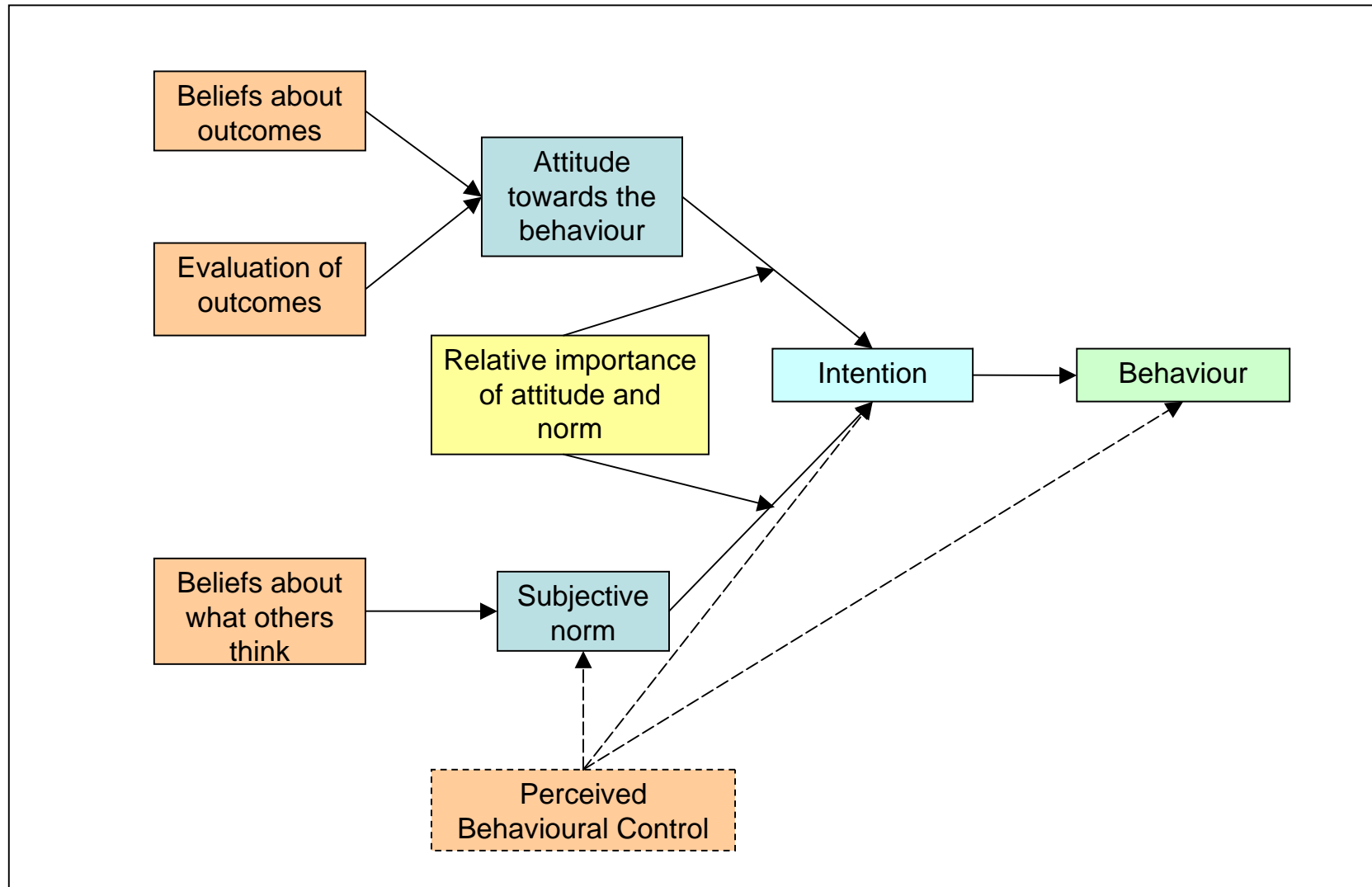
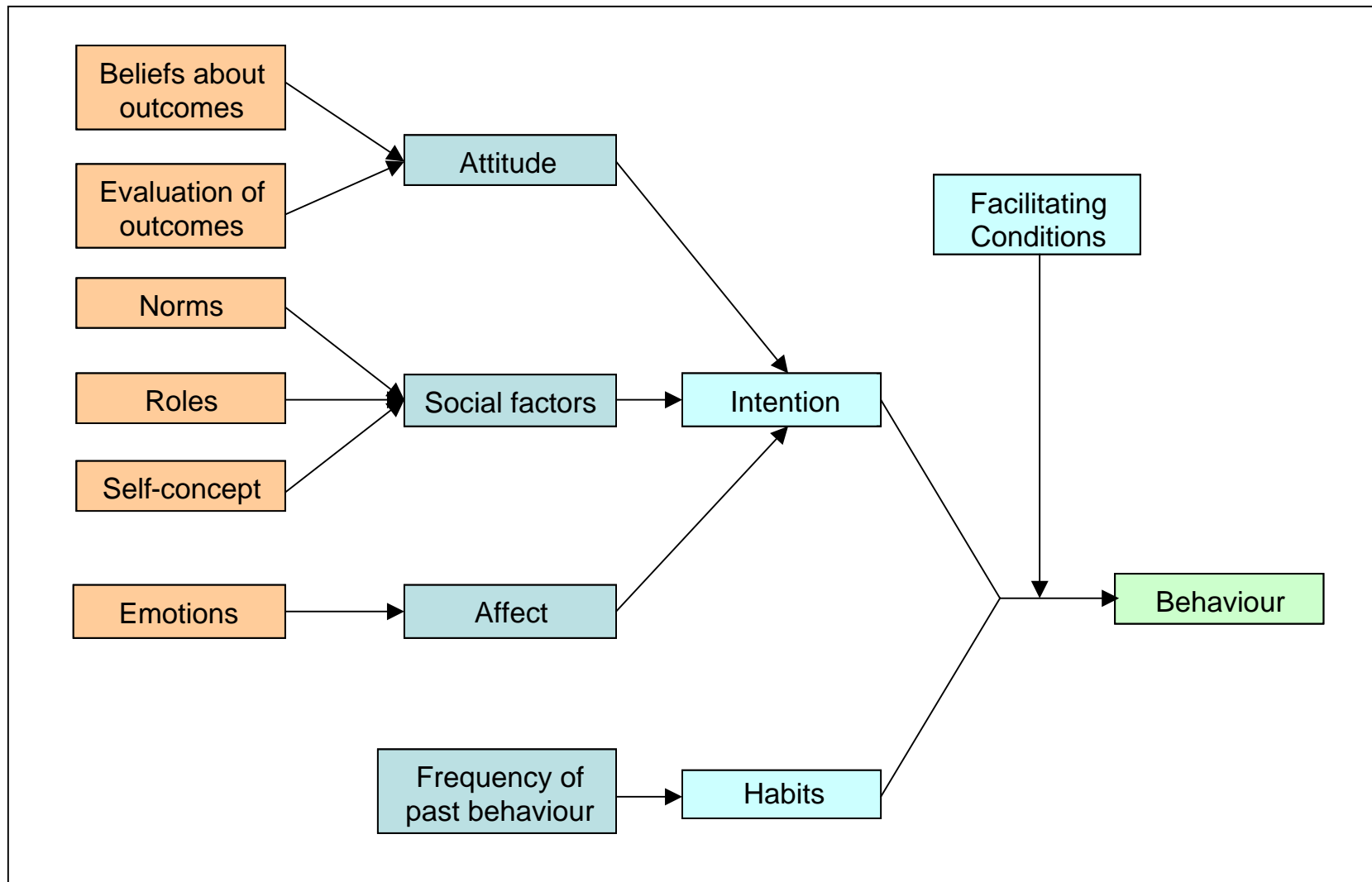


Figure 2: Triandis' Theory of Interpersonal Behaviour (1977)

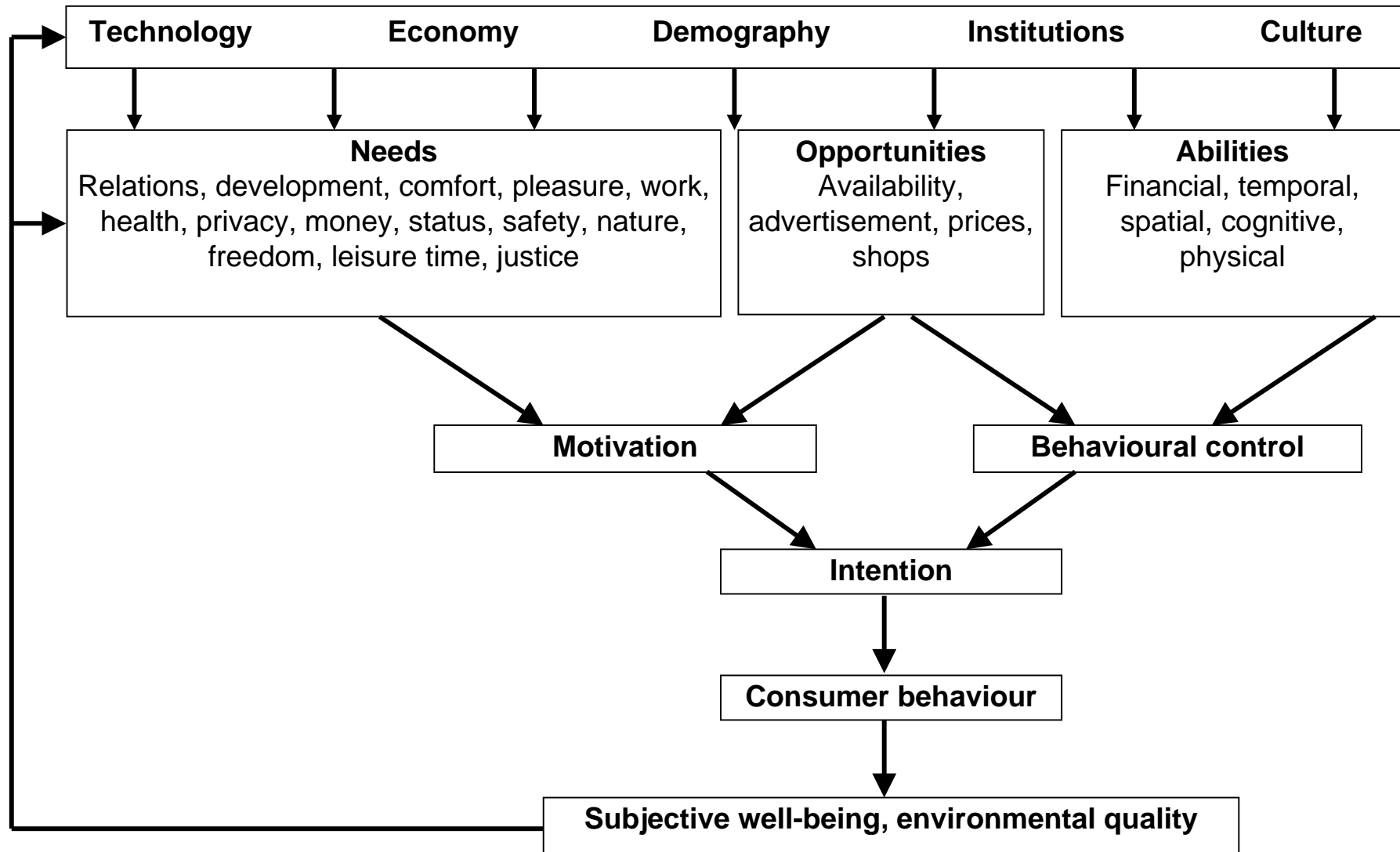


Review of Theory: Behavioural Models

3. External Factors

- **External factors often left 'off the model'**
- **Where 'facilitating conditions' are featured, also include individual's resources (skills and abilities)**
- **But (unmapped) external/material factors act as barriers to change**
- **Models at higher level of scale also required, eg Main Determinants of Health, NOA**
- **Individual processes (biological/cognitive) influenced by societal factors**

Figure 3: Vlek et al's NOA Model (1997)



Review of Theory: Theories of Change

1. Change Theory

- Less consensus around literature on theories of change: often practical not conceptual in purpose
- eg. Lewin's Change Theory (1947) on changing habits
- Based on unfreezing/refreezing dynamic, lifting habits up to conscious scrutiny
- Habits as positive 'resistance to change' based on group standards
- 'Group decision' is vital; better than 'a good lecture'
- Lewin as the father of action research (learning through doing)

"There is nothing so practical as good theory"

Review of Theory: Theories of Change

2. Change as a Process

Prochaska & Di Clemente's Transtheoretical ('Stages of Change') Model (1983)

- **Changing habits as progress through 6 segments**
- **10 stage-matched interventions ('processes of change')**
- **Developed from smoking cessation, but increasingly rejected by practitioners**

Rogers' Diffusion of Innovations (1962-)

- **Explains adoption of innovations through society, based on S-curve**
- **Segments public into five types ('innovators' to 'laggards') who adopt based on a five step 'Information-Decision Process'**
- **Developed to model take-up of technologies, not the spread of behaviours**

⇒ Value predominantly conceptual: behaviour as a process not an event

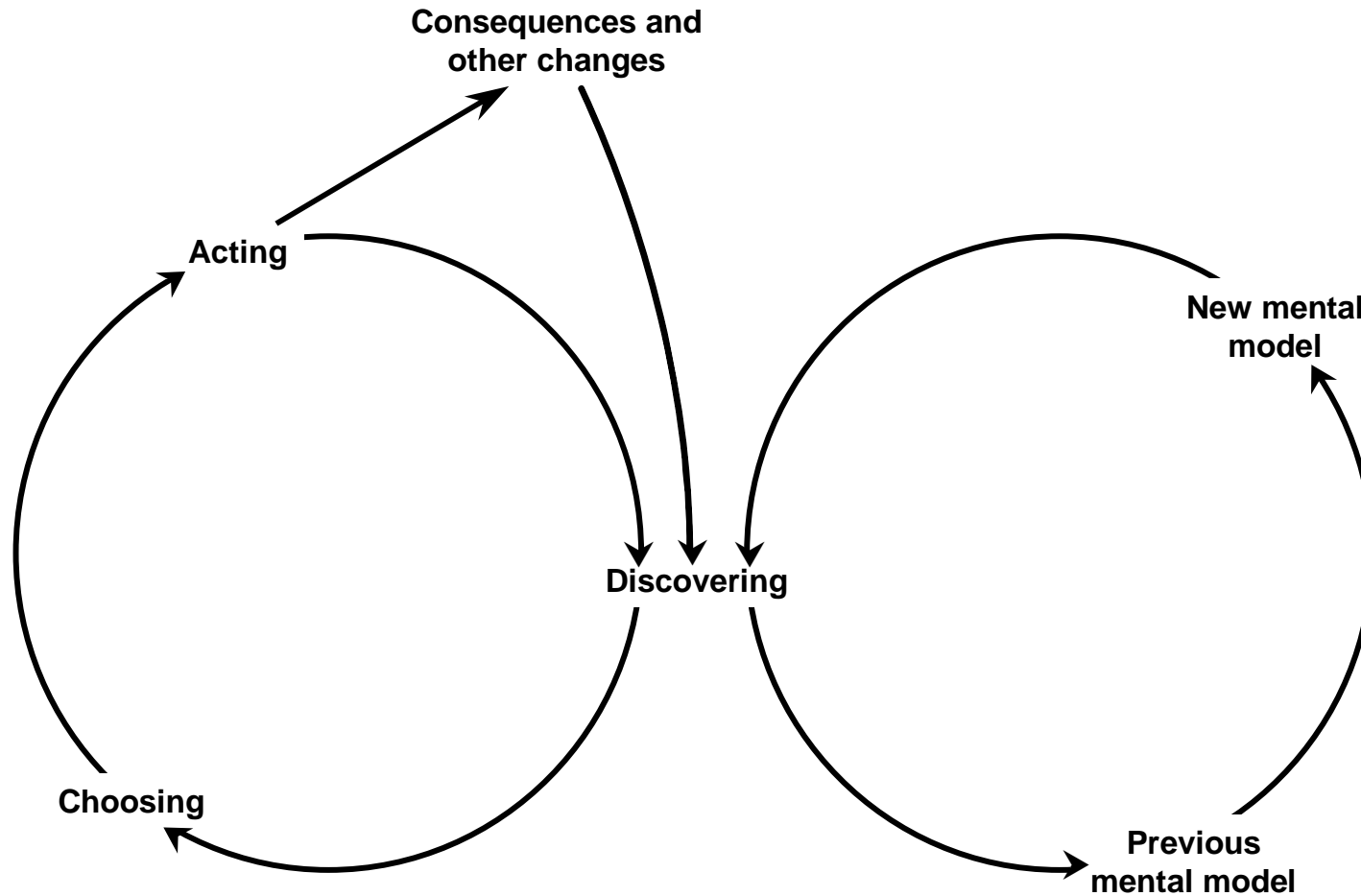
Review of Theory: Theories of Change

3. Change as Learning

- Formal learning a key tool in behaviour change interventions
 - Information-Motivation-Behavioural Skills Model (IMB)
 - Education for Sustainable Development (eg ESD1 / ESD2)
- Learning theory has learning and change as intertwined
 - eg Deweyan Inquiry (learning as surprise)
- Double loop learning distinguishes between ‘instrumental’ and ‘process’ learning (action and reflection)
- Second loop learning necessary for transformational change
- Reshapes ‘underlying assumptions’ (Schein)

“Learning and change cannot be imposed on people”

Figure 4: Argyris and Schon's Double Loop Learning (1978)



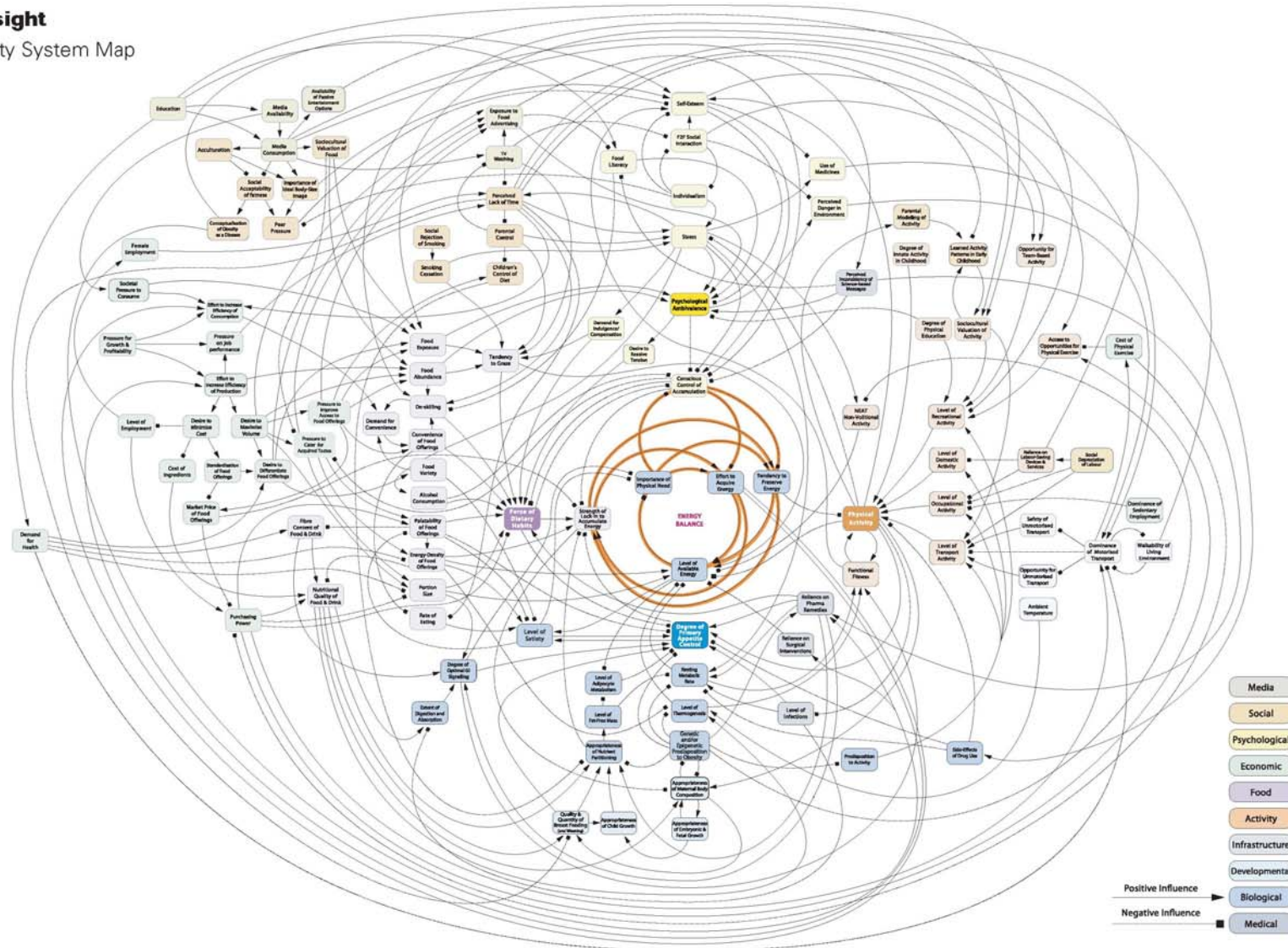
Review of Theory: Theories of Change

4. Change in Systems

- **Systems defined by their ‘emergent properties’, which provide their resistance to change**
- **In human activity, ‘emergent properties’ account for ‘policy resistance’**
- **Systems thinking as “a discipline for seeing wholes”**
- **Thus a diagnostic (not practical) technique for approaching complex problems, or ‘messes’**
- **Produces diagrams and maps, not models**

Figure 5: Foresight's Obesity System Map (2007)

Foresight
Obesity System Map



Practical Guidance: A Model-Based Framework

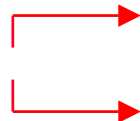
'Nine Principles for designing and developing interventions based on models'

1. Identify the audience groups and target behaviour
2. Identify relevant behavioural models
3. Select the key influencing factors
4. Identify effective intervention techniques
5. Engage the target audience as 'actors'
6. Develop a prototype intervention
7. Pilot the intervention, and monitor
8. Evaluate: adapt, extend or abandon
9. Gather learnings and feed back in

Practical Guidance: A Model-Based Framework

'Nine Principles for designing and developing interventions based on models'

Behavioural
Models
Here



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-
- The diagram consists of two main annotations. On the left, the text 'Behavioural Models Here' is written in red. Two red arrows originate from this text: one points to step 2, 'Identify relevant behavioural models', and the other points to step 3, 'Select the key influencing factors'. On the right, the text 'Theories of Change Here' is written in green. A green line starts from this text, goes up to step 1, then left to point at it. From step 1, a green line goes down to step 4, then left to point at it. From step 4, a green line goes down to step 5, then left to point at it.

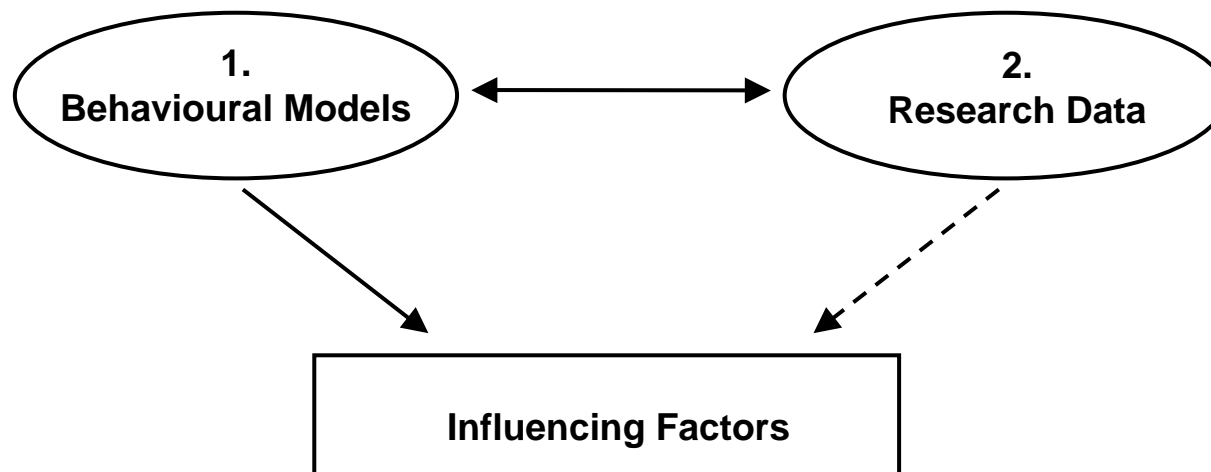
Practical Guidance: A Model-Based Framework

Principle 2: Selecting Models

- Models assessed in terms of their predictive capacity (based on factors)
- Endpoint is a shortlist of influencing factors, not a 'winning' model
- Key factors go on to draft strategy as intervention objectives
- A dual-path method:

Path 1 = From Models to Factors

Path 2 = From Research Data to Models and Factors



Practical Guidance: A Model-Based Framework

Principle 2: Selecting Models

- **Guidance includes two tables as starting points for model selection**
 - Table 1 matches behavioural models (and factors) to behaviours
 - Table 2 matches behavioural models to types of behaviour
 - **Use both together, or just Table 2 if no match in Table 1**
 - eg 'Seatbelt Use' as TPB, social norms and habit (in Table 1)*
 - ...as a 'habitual' behaviour could also be TIB (in Table 2)*
 - ***Note: multiple matches to models and factors possible***
 - ***Note: weight of influence not quantified***
- ⇒ **Further interrogation required (using dual-path method above)**

Practical Guidance: A Model-Based Framework

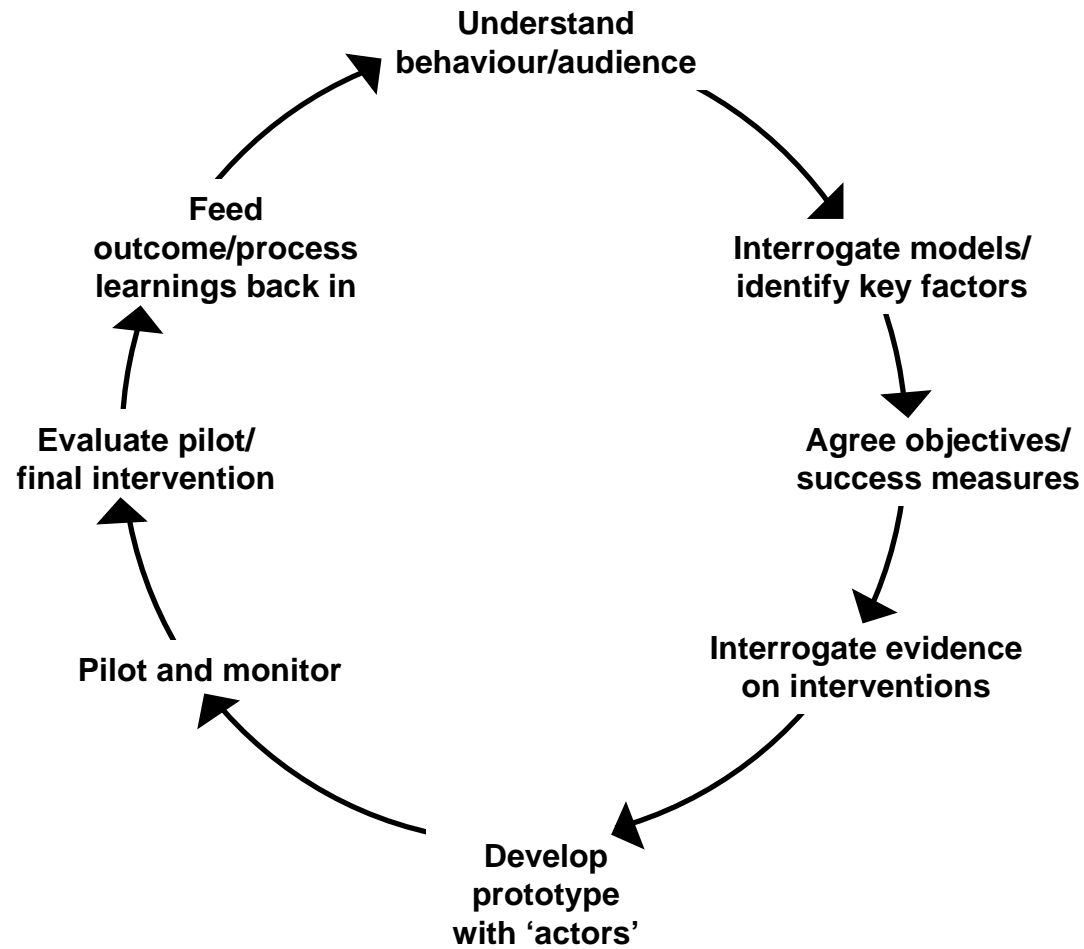
Principle 4: Identifying Intervention Techniques

- **Once objectives have been set, identify intervention techniques to address those key factors**
 - **From process-based models of change (eg. Stages of Change, IMB)**
 - **From case studies of past practice**
 - **From meta-analyses**

(eg. Abraham and Michie 2007, matching BCI elements to models)
- **Work up prototype intervention through collaboration with audience as actors**
- **Solutions must be flexible to audience groups, and behaviour-specific**
- **GSR Project 2 to provide further guidance...**

Practical Guidance: A Model-Based Framework

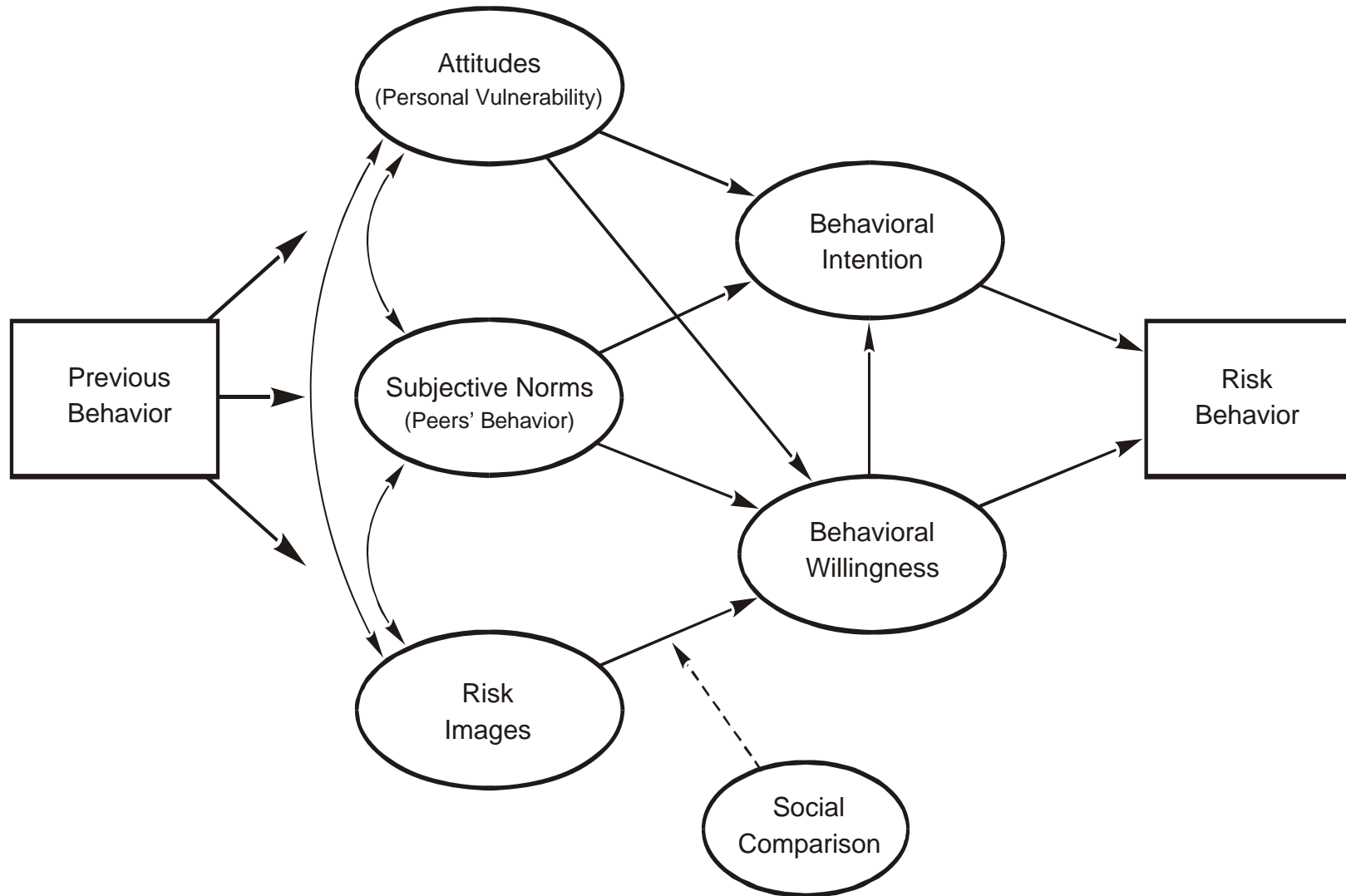
The Role of Research



Example from Practice: FRANK (2005-06)

- **FRANK's Objective:**
 - “to prevent or delay the onset or escalation of drug use”* among 11 to 18 year olds
- **One sub-audience: non-users at risk of becoming users (11 to 14s)**
- **From desk research, Gibbons and Gerrard's Prototype/Willingness Model (2003) of risky behaviours identified for drug trying and early using**
- **'Risk images' identified in campaign strategy as the key factor to work on for the younger audience (also in view of comms tools)**
- **Ad executions developed and refined through research with the target audience**
- **Campaign evaluated against 'risk images' measures, as well as FRANK user data and drug use statistics**

Example from Practice: The Prototype/Willingness Model



Conclusions

- **A distinction between behavioural models and theories of change supports effective practice**
- **There is no one 'winning' model - identify influencing factors from as many as are relevant**
- **Models are concepts to help us understand behaviours, not recipes for changing behaviours**
- **Models underpin effective interventions, but only when developed on the ground (with the audience and in context)**
- **Flexibility in implementation is key - a learning process (trial and error)**
- **Behaviour change best approached as a craft not a science**



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