

Presentation by

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# Behaviour change and physical activity: rethinking complexity

October 3<sup>rd</sup> 2017

# What is behaviour change?

- Getting people to do things differently
- Regulating people through law
- Regulating business
- Introducing policies
- Telling people different, better or 'louder' information
- Persuasion
- Nudge
- Engineering
- Architecture
- Urban planning
- Policing
- Marketing



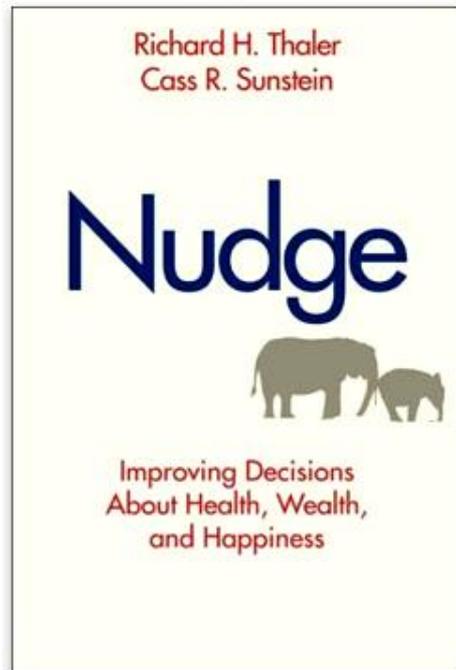
no walls





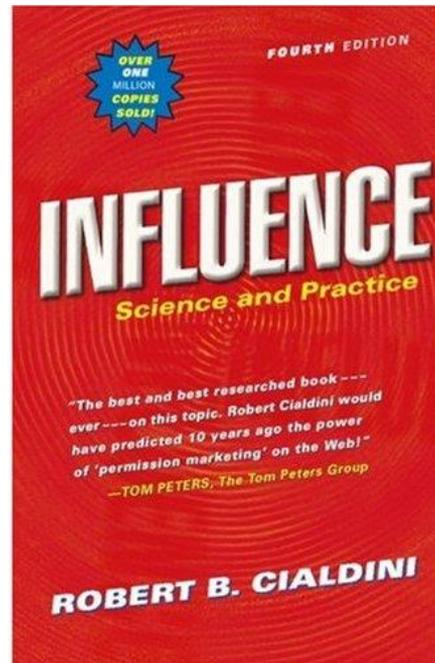
# Three schools of theory

## Behavioural Economics



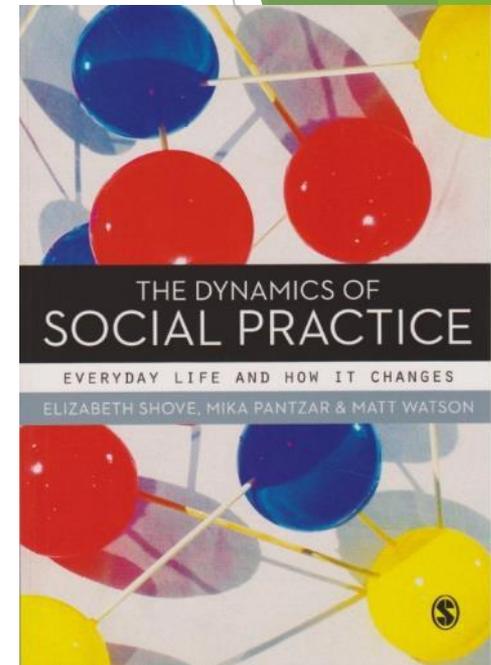
Individual as predictable

## Social Psychology



Individual as social animal

## Sociology



Individual as actor

# Behavioural economics

## Automatic System

## Reflective System

Uncontrolled

Controlled

Effortless

Effortful

Associative

Deductive

Fast

Slow

Unconscious

Conscious

Skilled

Rule-following

Source: Nudge, Thaler and Sunstein, 2008

## Messenger

- we are heavily influenced by who communicates information

## Incentives

- our responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses

## Norms

- we are strongly influenced by what others do

## Defaults

- we "go with the flow" of pre-set options

## Salience

- our attention is drawn to what is novel and seems relevant to us

## Priming

- our acts are often influenced by sub-conscious cues

## Affect

- our emotional associations can powerfully shape our actions

## Commitments

- we seek to be consistent with our public promises, and reciprocate acts

## Ego

- we act in ways that make us feel better about ourselves

# Mindspace

# Examples

- ▶ Plastic bag charge
- ▶ Men's urinal target. (The latin for bee is 'apis')
- ▶ Move the salad to the front
- ▶ Paint lines on the playground
- ▶ App to make people drive more smoothly
- ▶ Piano stairs

Does it work?  
Is it enough?



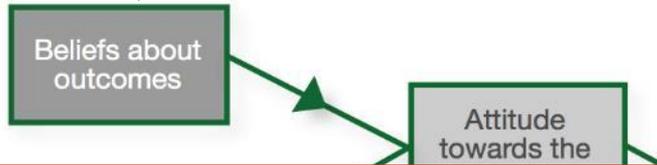
REDEFINING RETIREMENT



## Psychological models

- Social psychological models are the most commonly understood bedrock of behaviour change
- Individuals makes choices, based on various influences
- Factors include
  - ▶ Values, beliefs, attitudes
  - ▶ Norms
  - ▶ Agency
  - ▶ Habit
  - ▶ Affect

# Ajzen's Theory of Planned Behaviour (1985)



**A – B – C**

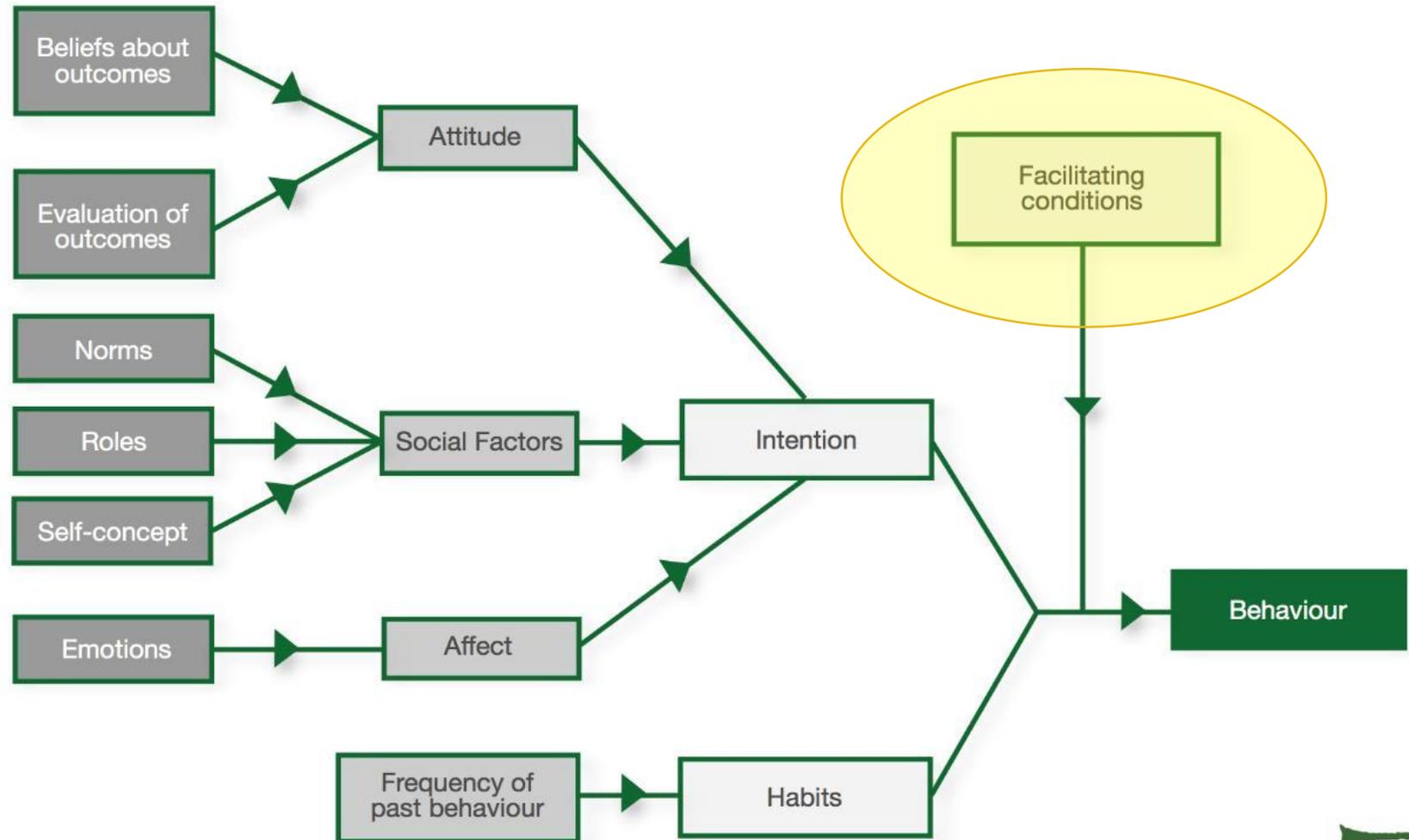
*“For the most part, social change is thought to depend upon values and attitudes (the A), which are believed to drive the kinds of behaviour (the B) that individuals choose (the C) to adopt” (Shove,*

*2010: 1275)*



Shove, E 2010, 'Beyond the ABC: climate change policy and theories of social change' *Environment and Planning A*, vol 42, no. 6, pp. 1273-1285. DOI: [10.1068/a42282](https://doi.org/10.1068/a42282)

# Triandis' Theory of Interpersonal Behaviour (1977)



# Examples - who is the target?



BE COOL  
WALK TO SCHOOL



**UWE  
Bristol**

University  
of the  
West of  
England

Work-life balance | Health

# Friluftsliv: The Nordic concept of getting outdoors



Changing behaviour might not be enough.

Are we asking the right question? Is behaviour change enough?  
**CAN WE CHANGE CULTURE?**

# Sociological approach

social phenomena in which

Research papers

## Theories of practice and public health: understanding (un)healthy practices

Stanley Blue , Elizabeth Shove, Chris Carmona & Michael P. Kelly  
Pages 36-50 | Received 27 Mar 2014, Accepted 17 Oct 2014, Published online: 12 Nov 2014

Download citation  <http://dx.doi.org/10.1080/09581596.2014.980396>

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### Abstract

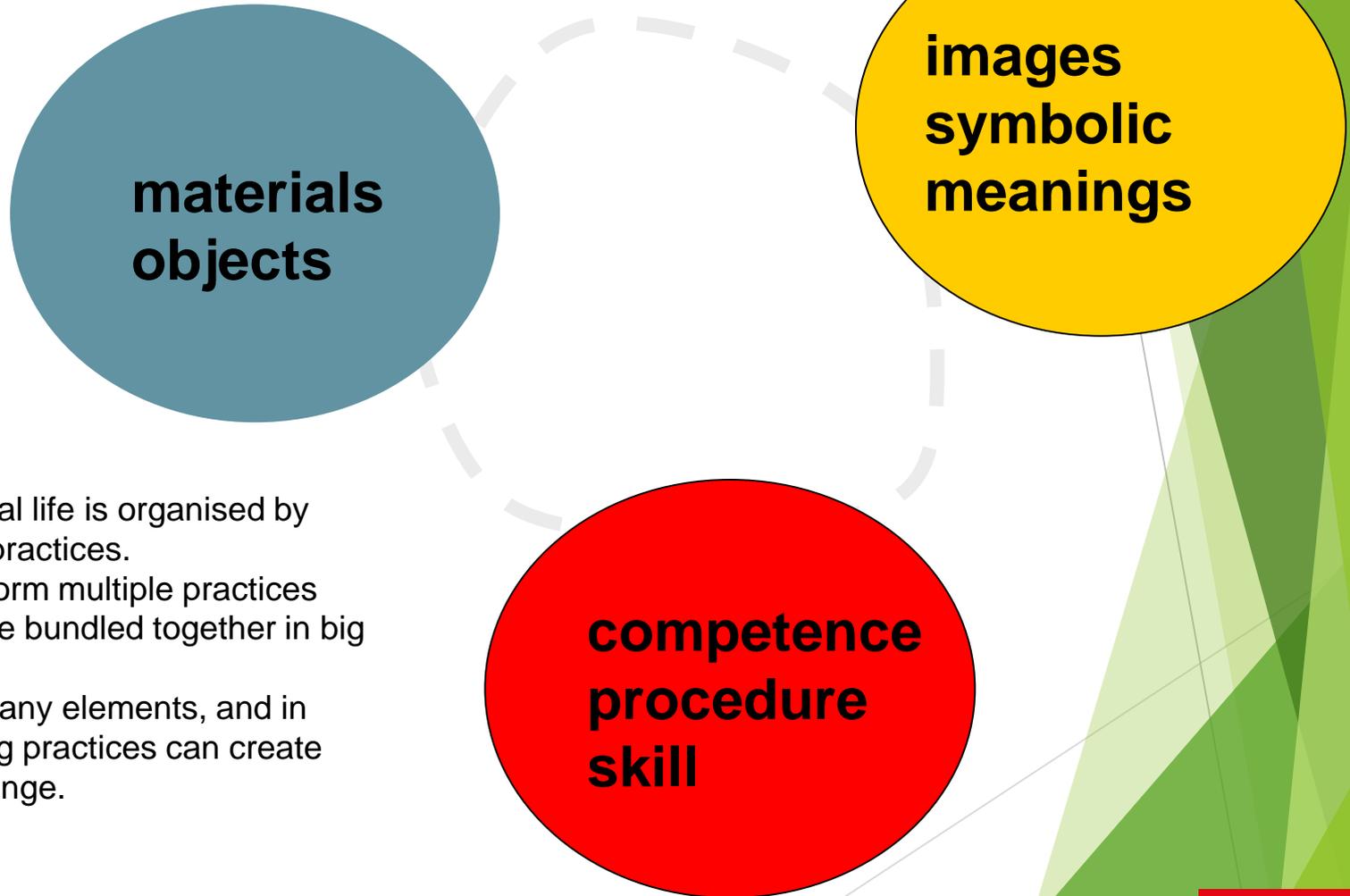
Psychological understandings and individualistic theories of human behaviour and behaviour change have dominated both academic research and interventions at the 'coalface' of public health. Meanwhile, efforts to

Peo



- ▶ Incorporate sociological approaches to change

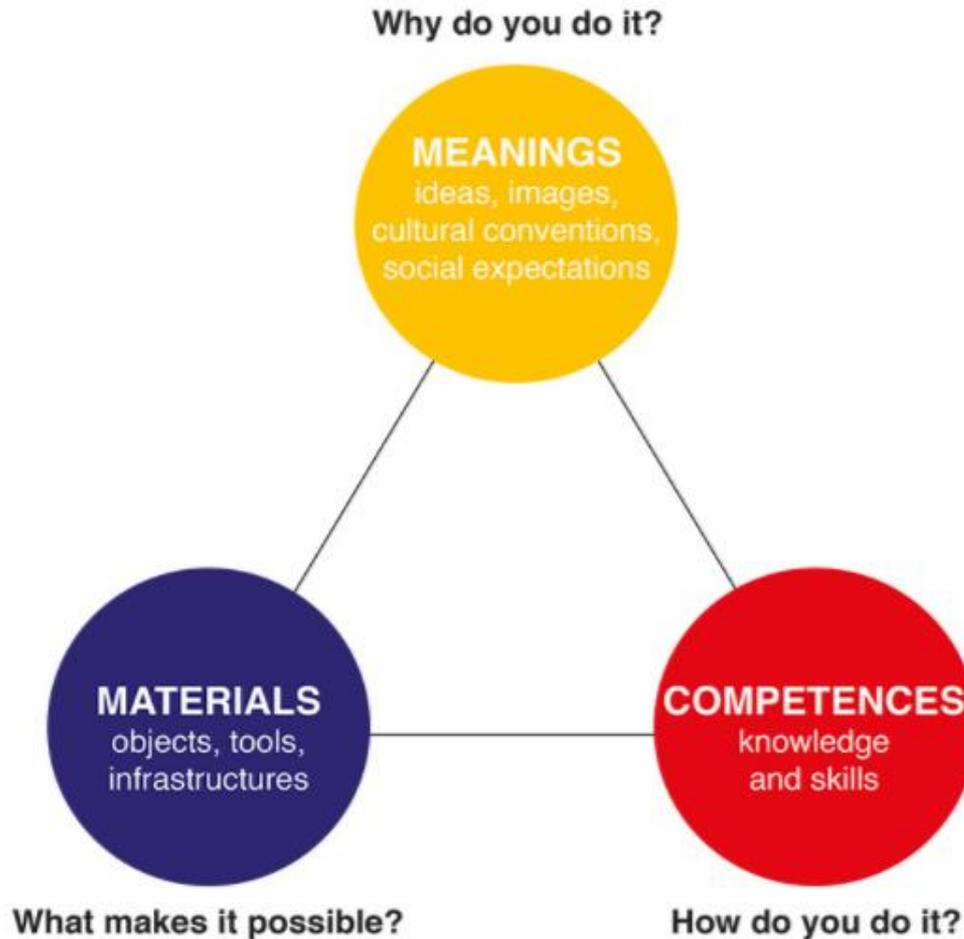
# 3-elements (Shove 2008)



- Human social life is organised by patterns of practices.
- People perform multiple practices
- Practices are bundled together in big networks
- Changes in any elements, and in neighbouring practices can create practice change.

## Example of having breakfast

- Who is doing the practice?



# School physical activity from a practice perspective

- ▶ What is physical activity?
  - ▶ A behaviour?
  - ▶ A practice?
- ▶ Physical activity is a requirement of some practices; a demand
  - ▶ Cycling/walking to and from school
  - ▶ Playing in the playground
  - ▶ PE
  - ▶ School sports
  - ▶ Trips and outings
  - ▶ Daily Mile

# The school is a complex system...

## SIMPLIFY!

- ▶ As a set of interlocking practices
- ▶ Some demand physical activity, some don't
- ▶ Practitioners are children, teachers, support staff, management, parents, governors, community sports trust (and so on)
- ▶ Elements join to enable practices which demand PA OR
- ▶ Elements disrupt PA OR
- ▶ Practices compete with those which might demand PA



# School physical activity

## ► Elements join to enable practices which demand PA

Example:

- Footpaths, cycle racks, limited parking (materials)
- Independent, rewarding, sociable, practical (meanings)
- Leave on time, navigate, snacks, safety (competences)

# School physical activity

OR

## ► Elements disrupt PA

Examples:

- Rain stops play (material)
- SATS, so no Daily Mile (meanings)
- Roads not safe to walk (material)
- Children stationary in PE classes (competences)
- Classroom activities sedentary (competences)
- No time to walk in the morning (competences)

# School physical activity

OR

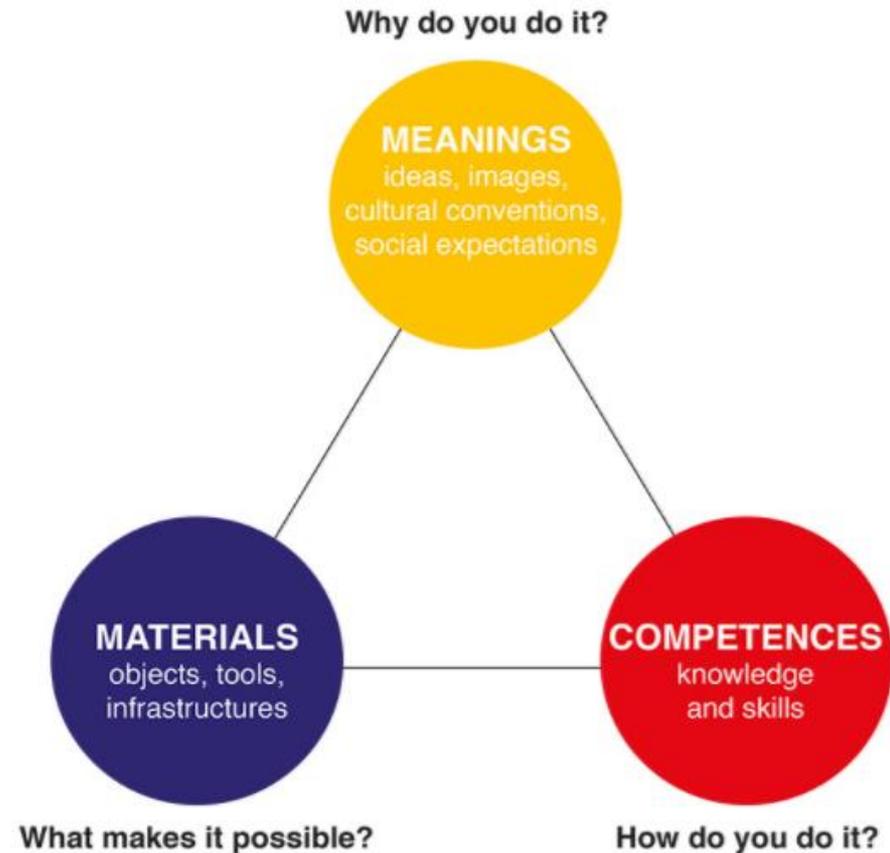
## ► Practices compete with those which might demand PA

Example:

- Parents driving to work in next town - competing with children cycling/walking to school
- Teaching and testing requirements competing with active lessons
- Screen leisure competing with outdoor play

# Let's map a practice - think about what disrupts, demands or competes with physical activity

- ▶ Daily Mile
- ▶ PE
- ▶ Sports competitions
- ▶ Trips and outings
- ▶ Getting to and from school
- ▶ Lessons
- ▶ Playtime



# Just another intervention?

*“We are tired of being told what to do”*

*“We are tired of being researched”* (teachers, everywhere)

## Principles of SCIP

1. Don't target children, it's not their fault
  - ▶ Strengthen children's relationship with PA for life - and their body image
2. Don't target teachers, it's not their fault
  - ▶ Work within the system
3. Don't tell schools what to do, they know best
  - ▶ Support schools to strengthen the physical activity culture

# Whole-school approach in promoting health

- ▶ Widely used WSA framework is the *Health Promoting School* (HPS).
- ▶ Must include 6 key areas in the design of the programme:

Policies	Personal Skills	Physical Environment
Social Environment	Community	School Health Services

- ▶ UK - the *National Healthy School Programme* (NHSP) was introduced in 1999.
- ▶ Schools achieve *National Healthy School Status* (NHSS) if they meet 41 criteria across four themes: (1) PSHE (2) Healthy Eating (3) Physical Activity (4) EHWB.
- ▶ In 2011, a DH-commissioned evaluation found that NHSP **did not** have a significant positive impact on pupil's knowledge and behaviour across the 4 themes.
- ▶ Presently, there is the option for schools to sign up to be "Healthy Schools" within the local area (i.e. Leeds). The impact of this localised programme has yet to be evaluated.

# Why isn't the Whole-School Approach working?

- ▶ Health co-ordinators that were interviewed in the NHSP evaluation mentioned staff engagement, negative external influences from parents or peers and school's time constraint as factors that prevented big changes from happening.
- ▶ The NHSP were also not the sole contributors to change, often the NHSP just provided a framework to help run **existing initiatives**.
- ▶ Lack of communication between the school and government bodies due to different agendas also is a factor why this approach is not effective.
- ▶ Lack of seeing the 'bigger picture' - most interventions and evaluations focus on outcomes like BMI or step counts and fail to ask the children what *they* think.

# School Culture Intervention Project (SCIP) - a school culture approach to physical activity

1. Revaluation - revealing the value
2. 3-elements co-design
3. Evaluation

# Revaluation

- ▶ Reveal the full value of the school physical activity culture
- ▶ What are the activities (practices) which demand physical activity?
- ▶ What is the value of these activities
  - ▶ Value can be **counted** (how many star jumps, how many miles, how much BMI, how many different sports etc)
  - ▶ Value can be **felt** (confidence, independence, friendship, worth, joy, fun)
  - ▶ Value can be **networked** (changes in culture, networks of influence, connections and potential)

# Pilot 1 stage 1: Revaluation

## Calculate

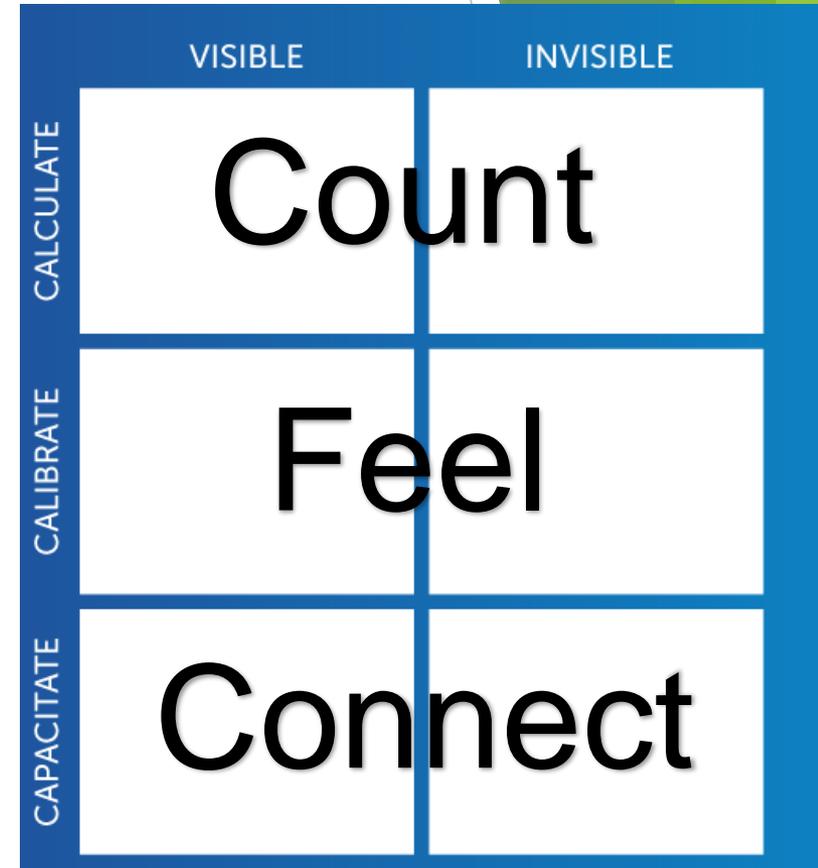
Involves manipulating numbers (summing, or converting using proxy data and 'multipliers') to arrive at a single figure, usually in £.

## Calibrate

Involves judgements about the relative merits (or cost/benefits) of different actions and outcomes.

## Capacitate

Involves measuring the capacity of a movement or network, plus the potential of that network to increase its capacity in future, and thus the value it can generate (ie. its emergent qualities).



# Pilot 1 stage 1: Reevaluation

## SCIP: 6 Box account of walking to and from school [as at 6-12-2017]

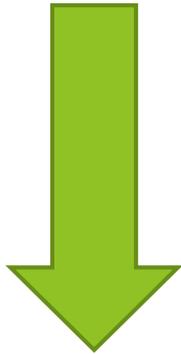
	VISIBLE	INVISIBLE
<b>CALCULATE</b>	<p>[Walking to and from school in numbers]</p> <ul style="list-style-type: none"> <li>- Route walked.</li> <li>- Distance walked.</li> <li>- Time spent walking.</li> <li>- How regularly breakfast is eaten.</li> <li>- What is eaten for breakfast.</li> </ul>	<p>[Calculable value of walking to and from school and other metrics]</p> <ul style="list-style-type: none"> <li>- Fitness increase over time, as measured by heart rate changes.</li> <li>- Value of houses within walking distance to school.</li> </ul>
<b>CALIBRATE</b>	<p>[Direct perceived benefits from walking to and from school]</p> <ul style="list-style-type: none"> <li>- Opportunity for children to open up, be honest, get their worries out. Time for problem solving and making sense of the day (e.g. what happened? What did you have for lunch?).</li> <li>- Can help learning e.g. reciting timetables, lines, learning about nature.</li> <li>- Enjoyment from taking detours, going through paths and fields, rather than staying on the roads.</li> <li>- Can relieve stress, whereas driving can be potentially stressful.</li> <li>- Encourages reflections on locality - 'it's great living in [the town]'.</li> <li>- Walking home from school can mean children are calmer when they get indoors.</li> <li>- Whether you leave the house on time or not affects the walk to school, for example if you need to leave at 8:35am, then at 8.25am parents will start shouting to get children ready to leave - if leave the house late then walking to school becomes running to school.</li> <li>- Weather dependent - adverse weather can limit walking to and from school</li> </ul>	<p>[Indirect conceptual benefits of walking to and from school. - knowledge, learnings, future pathways]</p> <ul style="list-style-type: none"> <li>- Experiencing and enjoying the outdoors.</li> <li>- Experiencing the rhythmic nature of thinking and talking whilst walking.</li> <li>- Develops skills - independence, time management, adventurousness.</li> <li>- Encourages a sense of belonging; to the community, school, family, and place.</li> </ul>
<b>CAPACITATE</b>	<p>[Relational value of walking to and from school: in time and space]</p> <ul style="list-style-type: none"> <li>- Connects children with nature - being able to walk, run, and climb in the fields and woods, versus the safety/containment of being in a car.</li> <li>- Opportunity for the whole family to spend quality together - generally children under Year 6 will walk with their family, often with younger siblings' buggies.</li> <li>- Can encourage closeness between children and family members, for example holding hands, which they wouldn't do in the car.</li> <li>- From Year 6 upwards children start walking with their friendship group, provides bonding time.</li> <li>- Neighbours join together in the walk.</li> </ul>	<p>[Transformational change, and other innovations from walking to and from school]</p> <ul style="list-style-type: none"> <li>- Regularity is important in forming the habit of walking versus driving, will follow on into secondary school.</li> <li>- Connects the school with place.</li> <li>- Can affect perceptions of the school e.g. whether it is good/outstanding.</li> <li>- Inspires the association of walking as a treat e.g. whole family walks seen as "a treat day", although these might.</li> </ul>

# The value of Revaluation

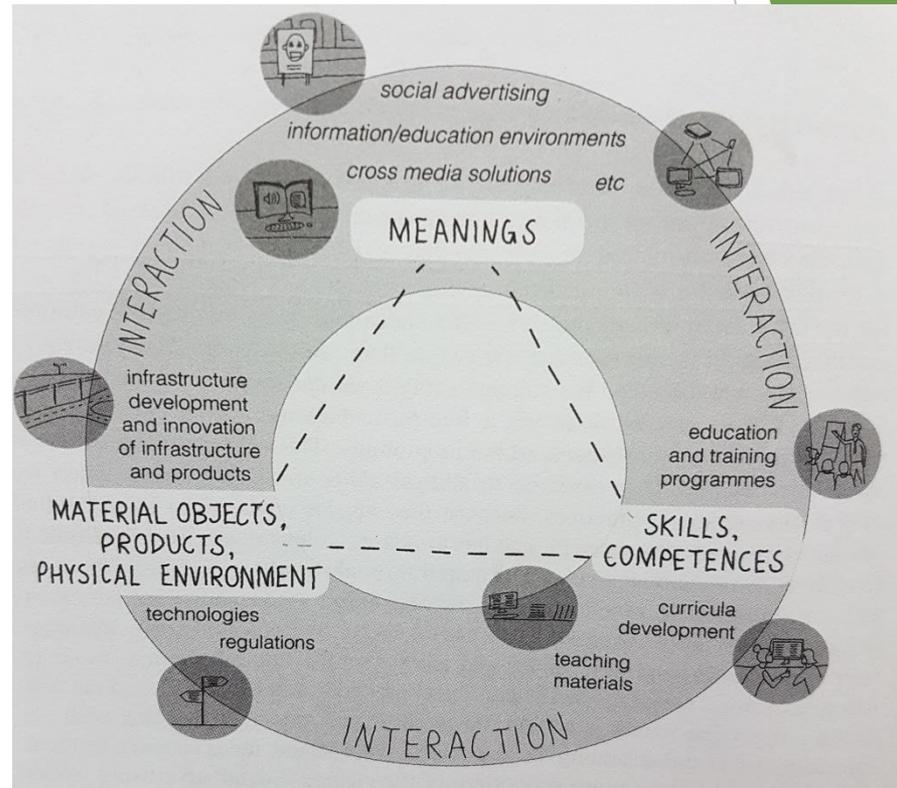
- ▶ “I never knew what I did mattered. I didn’t know it was part of a system” (lunch time supervisor)
- ▶ “If teachers value calmness [after the Daily Mile] why do we stop it during SATs?” (PE coordinator)
- ▶ “I didn’t realise what I do in my spare time matters to the children” (teacher)
- ▶ “How we talk about physical activity has a huge impact” (teacher)
- ▶ “We need to do more of that” (everyone!)
- ▶ “It made me cry. This is so powerful” (GM Moving lead)

# Stage 2: school physical activity culture

- ▶ Co-design a plan to release more value for more people
- ▶ Materials, meanings, competences, interaction



- ▶ Physical activity action plan
- ▶ Relates to sports premium expenditure



# Stage 3: Evaluate

- ▶ 6 boxes again
- ▶ Reflect on how value has increased, how activities have changed
- ▶ Can drill deeper into data if required (count those starjumps!)
- ▶ Revaluation measures value in real time, fits the system, creates value as it goes.

# Conclusion

- ▶ Different theoretical assumptions about behaviour change
- ▶ Tendency to focus on the ‘target’ audience - their responsibility, their fault. Particularly in PA.
- ▶ We want children to grow up physical active naturally, with a strong and resilient relationship with their body image. It is possible.
- ▶ Interdisciplinarity is required.
- ▶ Practice theory, coupled with reevaluation, can be a way of strengthening school culture.
- ▶ Children are not the target. No-one is the target. Work with the system to strengthen the PA culture.

# Thank you!

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PS. we are recruiting pilot schools.