NATIONAL CENTER for INTERPROFESSIONAL PRACTICE and EDUCATION

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INTERPROFESSIONAL CONTINUING EDUCATION

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Physicians: The National Center for Interprofessional Practice and Education designates this live activity for a maximum of **1.5** *AMA PRA Category 1 Credits*™.

Physician Assistants: The American Academy of Physician Assistants (AAPA) accepts credit from organizations accredited by the ACCME.

Nurses: Participants will be awarded up to **1.5** contact hours of credit for attendance at this workshop.

Nurse Practitioners: The American Academy of Nurse Practitioners Certification Program (AANPCP) accepts credit from organizations accredited by the ACCME and ANCC.

Pharmacists: This activity is approved for **1.5** contact hours (.15 CEU) UAN: JA4008105-0000-18-064-L04-P

The National Center for Interprofessional Practice and Education is supported by the Josiah Macy Jr. Foundation, the Robert Wood Johnson Foundation, the Gordon and Betty Moore Foundation, The John A. Hartford Foundation and the University of Minnesota. The National Center was founded with support from a Health Resources and Services Administration Cooperative Agreement Award No.UE5HP25067.

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Barbara Maxwell

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All workshop participants:

- Scan your badge barcode or sign in to each workshop
- Complete workshop evaluations (paper) and end-of-Summit evaluation (electronic)

Those who purchase CE credit:

- MUST sign in to receive credit
- Will be sent a certificate after the Summit

****If you would like CE credit but have not purchased it, see Registration

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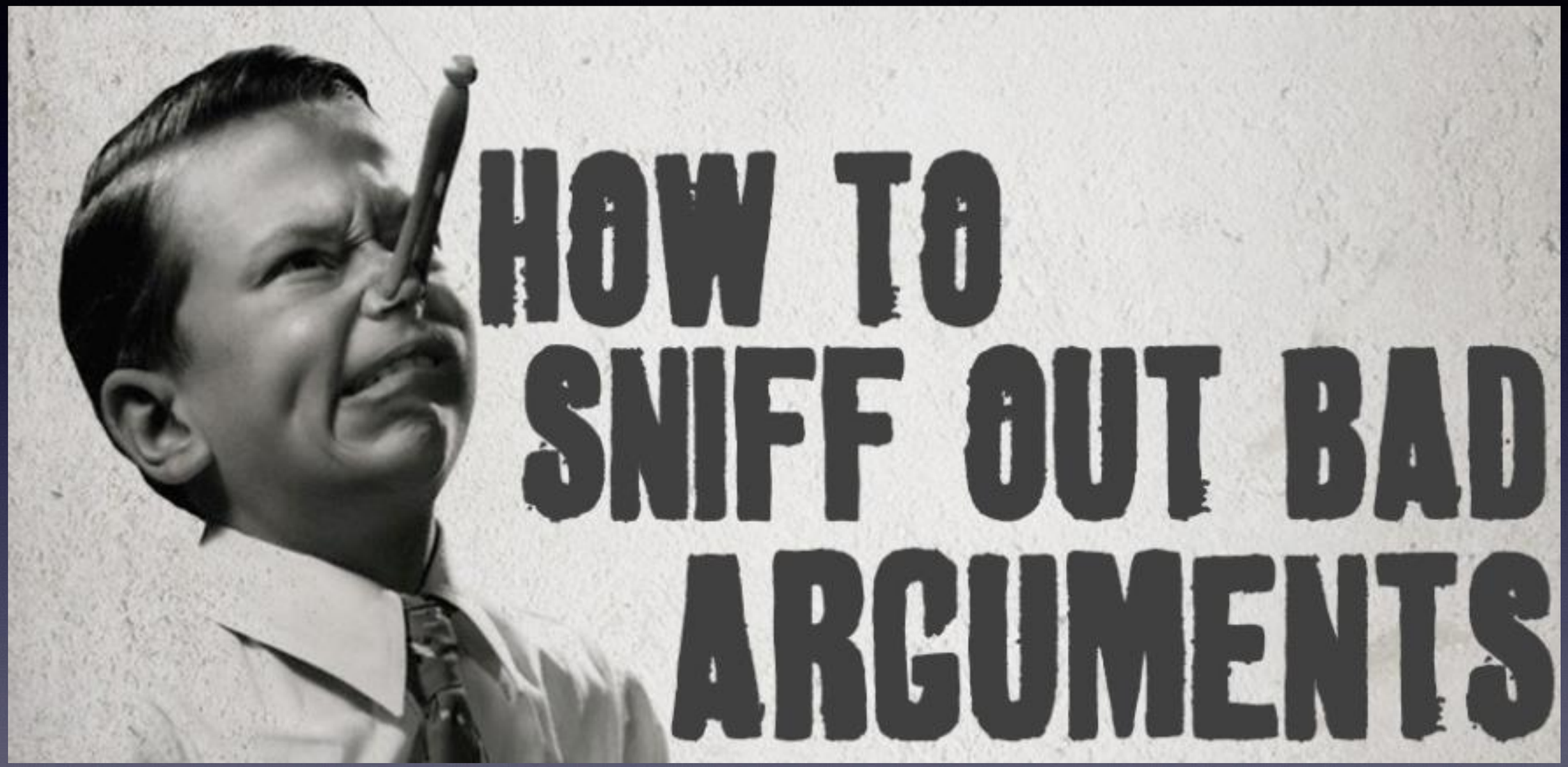
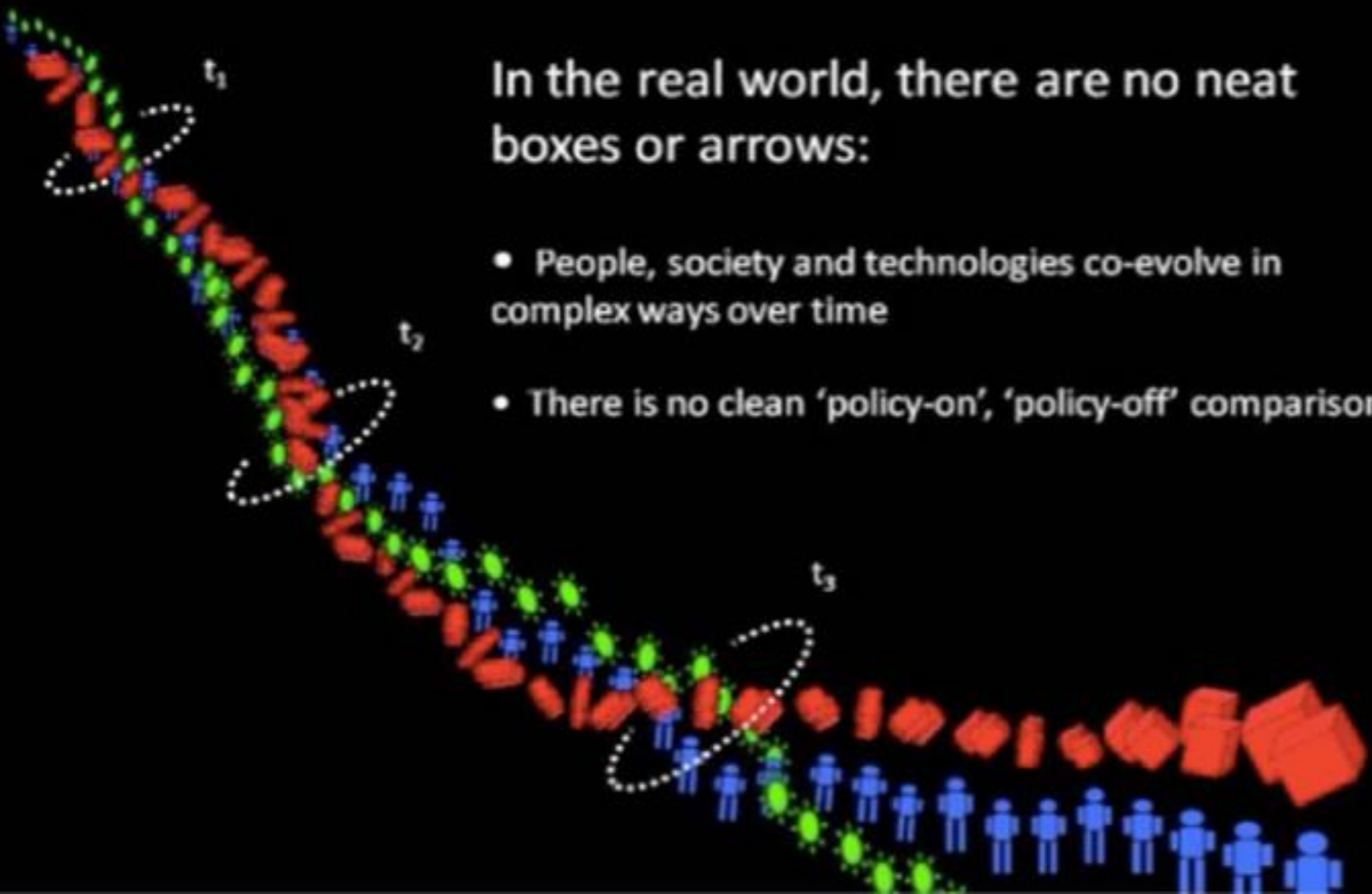
Realist Evaluation

"Using realist evaluation to understand whats really happening in interprofessional education and practice: What, works, for whom, in which circumstances, in what respects and why?"


HOW TO
SNIFF OUT BAD
ARGUMENTS

Programs


Input
utput



In the real world, there are no neat boxes or arrows:

- People, society and technologies co-evolve in complex ways over time
- There is no clean 'policy-on', 'policy-off' comparison

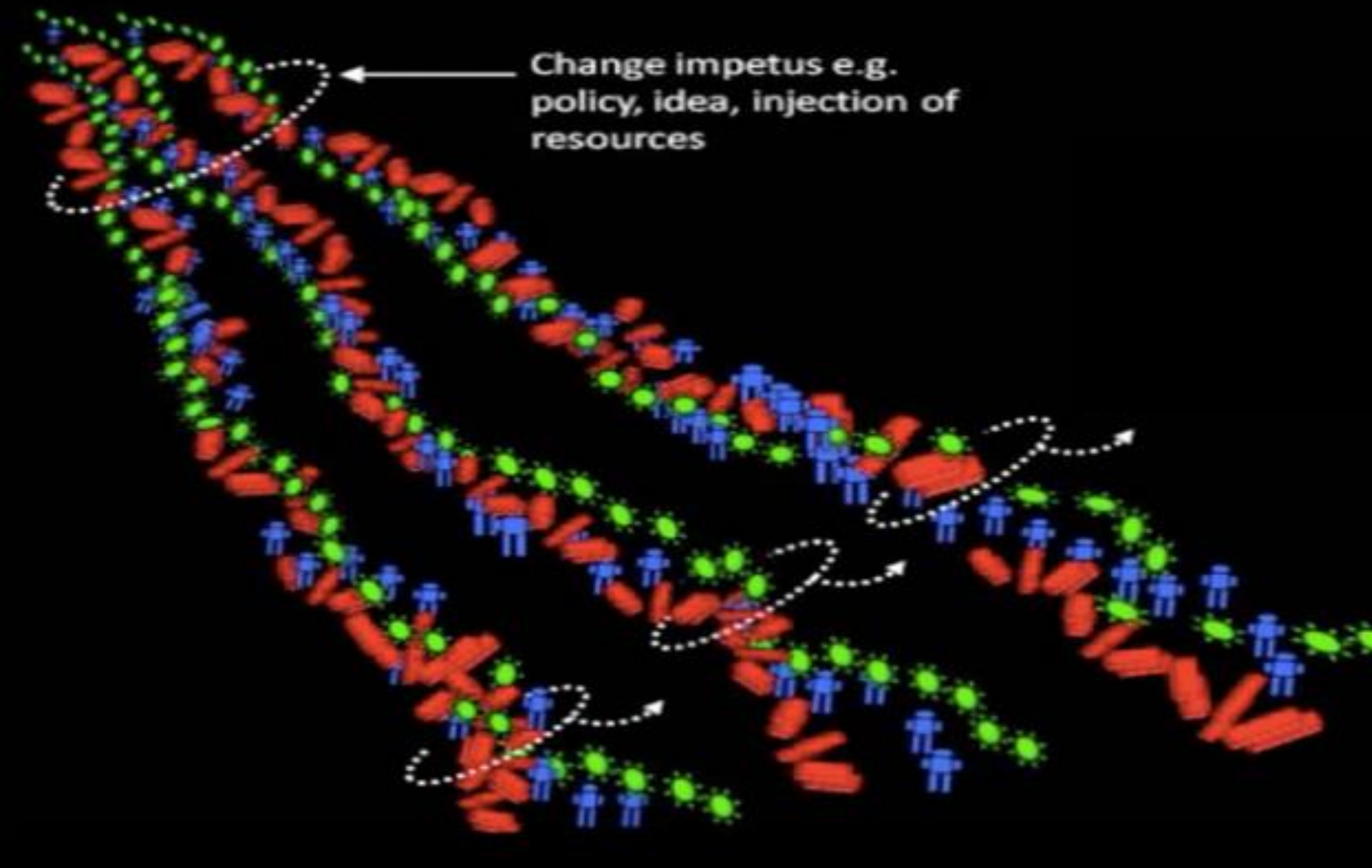

Change impetus e.g. policy, idea, injection of resources

Table 1: Reviews of IPE from 1999-present

Aim	Participants	Design Details	Key findings	Conclusions
Zwarenstein, et al (1999)				
Focus: the effect of IPE on collaborative working between professionals, plus quality and outcomes of patient care	Pre-qualification and post-professional	Design used as inclusion criteria - RCT, CBA, ITS Outcomes: Impact on direct patient care and or change in the organization of services	No studies met the inclusion criteria	No studies found
Barr et al (2000)				
Focus: methods used to evaluate IPE in health and social care in the UK	Pre-qualification and post-professional	Design not used as an inclusion criterion Outcomes: Evaluation methods	Wide range of methodologies	
Cooper et al. (2001)				
Focus: Evidence for IPE of undergraduate health professional students	Pre-qualification	Design not used as an inclusion criterion Outcomes: not specifically stated	30 studies Quality analysis performed: most studies were of poor quality	Results +ve for self reported student satisfaction with the learning experience, acquisition of knowledge and skills, and changes in behaviour and professional practice
Reeves (2001)				
Focus: effects of IPE on staff involved in the care of adults with mental health problems	Post-professional Mental Health professionals	Design not used as inclusion criteria Outcomes: predominantly learner self reported outcomes	18 studies included Quality analysis performed: 13 moderate – good.	Results +ve for self reported student satisfaction with the learning experience (5), acquisition of knowledge and skills (4), and changes in behaviour (3)and professional practice (6)
Freeth et al (2002)				
Focus: collaboration interventions	Pre-qualification ¾ Post-professional ¾	Design used as inclusion criteria Outcomes: predominantly learner self reported outcomes	53 studies	Positive outcomes though most were self reported outcomes of learner perception and attitudes
Zwarenstein et al (2001)				
Focus: Pre-licensure IPE	Pre-qualification	Design used as inclusion criteria: RCT, CBA, ITS, CCT Outcomes: patient functional and health status, hospital use, costs, death and disease	No studies met the inclusion criteria	No studies found

Aim	Participants	Design Details	Key findings	Conclusions
Zwarenstein et al (2005)				
Focus: effectiveness of interventions aimed at improving collaboration between health professionals, and thus high qulality patient care	Pre-qualification and post-professional	Design used as inclusion criteria :Primary studies: Outcomes: quality and outcomes of care	Reviewed 8 systematic reviews and conducted a review. No studies on pre-qualification IPE met the inclusion criterion. 14 studies on post-professionanl IPE included	Evidence for pre-licensure impact on patient care is missing Post professional positive though patchy New review post professional 9/14 positive. 5/9 statistically significant and clinically relevant outcomes (e.g. mortality rates) 4/9 achieving process change.
Hammick et al (2007)				
Focus: classification of the outcomes of IPE, document the influence of context on outcomes, develop a narrative concerning the underlying mechanisms	Pre-qualification and post-professional	Design: not used as inclusion criteria. Outcomes: improved care, learning. Knowledge. Skills, attitudes and perceptions	21 studies reviewed 15/21 (72%)pre-qualification. Modified Kirkpatrick classification used to categorize outcomes	Positive impact on knowledge and skills less so on attitudes and perceptions. Staff development ,authenticity and customization were highlighted as key influencers on effectiveness.
Davidson et al (2008)				
Focus: clinical (IPCE). Purpose to identify the requirements for good prequalification IPCE, also enablers and barriers to implementation.	Pre-qualification	Design not used as inclusion criteria. Narrative review. Outcomes: not specified regarding inclusion or exclusion	25 papers. Modified Kirkpatrick classification used to categorize outcomes	No preferred models identified. Did find useful information on barriers and enablers, which may help, provide guidelines for development and delivery of IPCE. Reported a lack of alignment between intervention aims, design, and outcome evaluation.
Reeves et al, (2009)				
Focus: Update of Zwarenstein et al (1999) review.	Post-professional	Design used as inclusion criteria: RCT, CBA and ITS Outcome inclusion: objectively measured or self report patient client outcomes, and health care process measures	6 articles included	4/6 positive, 3/6 sustained change, 2/6 no impact, 2/6 mixed results

	Common Features of IPE programs that pose evaluation challenges
Theory	Lack of theory use, or not implicitly stated Poor alignment of theory, design, and OC measures
Intervention Variability	Teaching & learning methods, facilitator preparation, focus or aims, duration, intensity, location dura
Participant Variability	Professions involved, curricular level. group size, composition, rates of participation, voluntary /mandatory
Outcomes	Poorly developed outcome measures Mostly learner self reported outcomes
Differing Contexts	Practice context, organizational context, national context
Issues for systematic reviews	heterogeneity in design lack of methodological rigor small sample size
Complexity	Difficulties in designing and implementing research protocols in complex environments to examine the effectiveness of complex interventions

complex social interactions

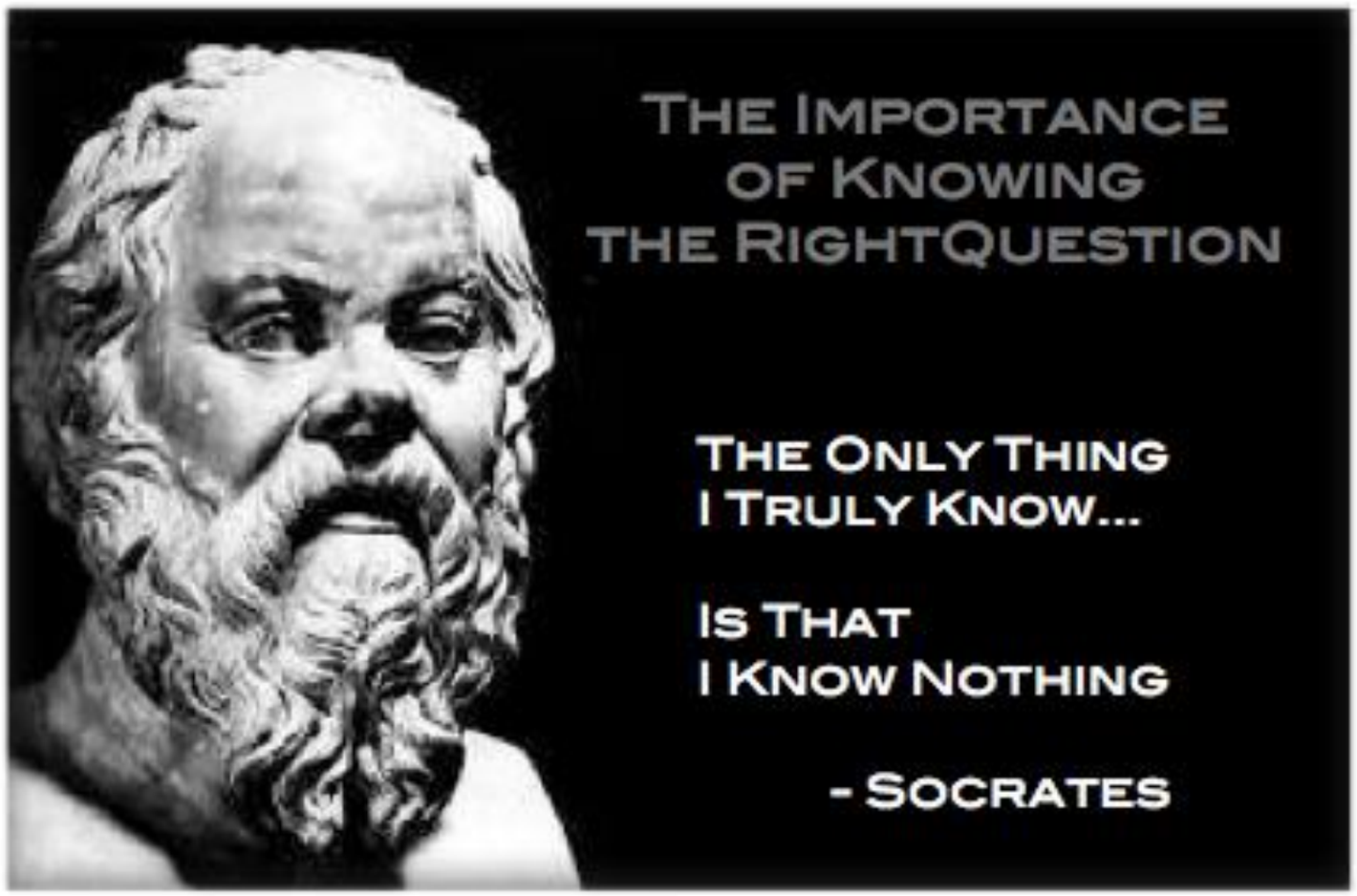
Characteristics of a complex social interactions
The intervention is a theory or theories (implicit and rarely stated rationale)
The intervention involves the actions of people - so understanding human intentions and motivations, what stakeholders know and how they reason, is essential to understanding the intervention
The intervention consists of a chain of steps or processes
These chains of steps or processes are often not linear and involve negotiation and feedback at each stage
Interventions are embedded in social systems and how they work is shaped by this context
Interventions are prone to modification as they are implemented
Interventions are open systems and change through learning as stakeholders come to understand them

“In short, social interventions are complex systems thrust amidst complex systems. Attempts to measure ‘whether they work’ using the conventional armoury of the systematic reviewer will always end up with the homogenised answer ‘to some extent’ and ‘sometimes’.....

– Pawson, Greenlaugh, Harvey & Walshe, 2004

..... but this is of little use to policy makers or practitioners because it provides no clue as to why the interventions sometimes work and sometimes don't, or in what circumstances or conditions they are more or less likely to work, or what can be done to maximize their chances of success and minimize the risk of failure"

– Pawson, Greenlaugh, Harvey & Walshe, 2004


The Importance
of Knowing
the RightQuestion
The Only Thing
I Truly Know...
Is That
I Know Nothing
- Socrates

the right questions

what works
for whom
in what circumstances
in what respects
why

Realist evaluation

‘Theory-driven’

(Chen and Rossi, 1992; Bickman, 1987; Connell et al, 1995; Weiss, 1997; Rogers et al, 2000)

The core principle is that we should make explicit the underlying assumptions about how an intervention is supposed to work (the ‘programme theory’), and should then go about gathering evidence in a systematic way to test and refine this theory.

Rather than seeking generalisable lessons or universal truths, it recognises and directly addresses the fact that the ‘same’ intervention never gets implemented identically and never has the same impact, because of differences in the context, setting,process, stakeholders etc.

Instead, the aim is explanatory – ‘what works for whom, in what circumstances, in what respects, and why?’”

realism

generative

vs

successionist

Realism agrees that there is a real world and that our knowledge of it is processed through human senses, brains, language and culture.

However

Realism also argues that we can improve our understandings of reality because the ‘real world’ constrains the interpretations we can reasonably make of it. While our knowledge will always be partial and imperfect, it can accrue over time.

"Critical realism presumes that in an open system a myriad of explanatory possibilities exist, some true and some mistaken…..

…. the primary goal of social inquiry is to critique the thoughts and actions that are responsible for such false explanations"

Archer et al: 1998; Bhaskar, 2002

Scientific, empirical, emergent, middle-range, or analytical realism.

This school of thought believes in the value of *adjudicating between* alternative explanations rather than eliminating false explanations, whilst acknowledging the open system nature of social inquiry acknowledging that other possible explanations may exist.

This branch of realist inquiry adopts many of the components of empirical science, such as hypothesis development and testing, outcome pattern identification, and critical comparison

programs

what it is about a program that generates change

mechanisms

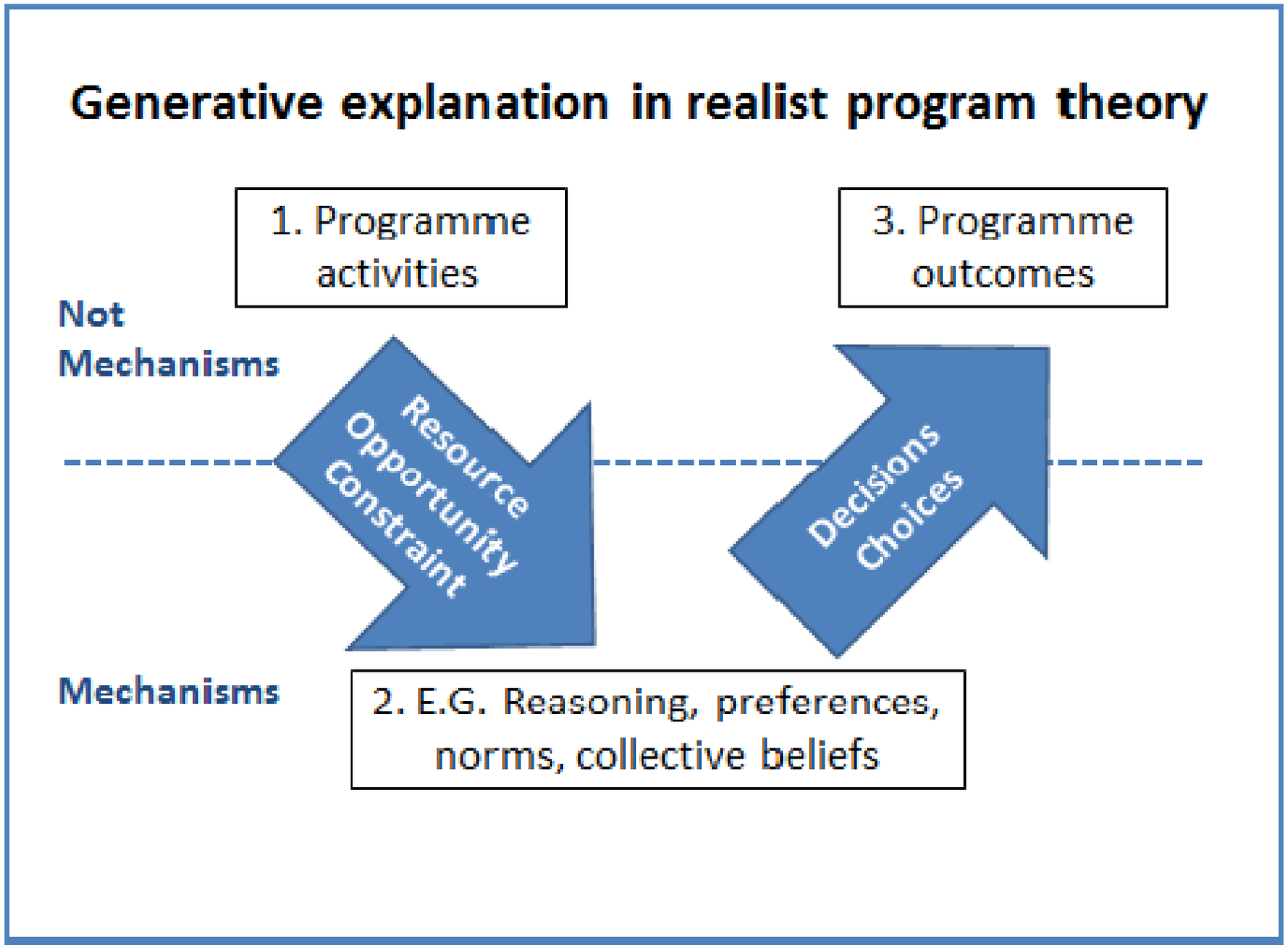


Figure 1: A pictorial representation of mechanisms

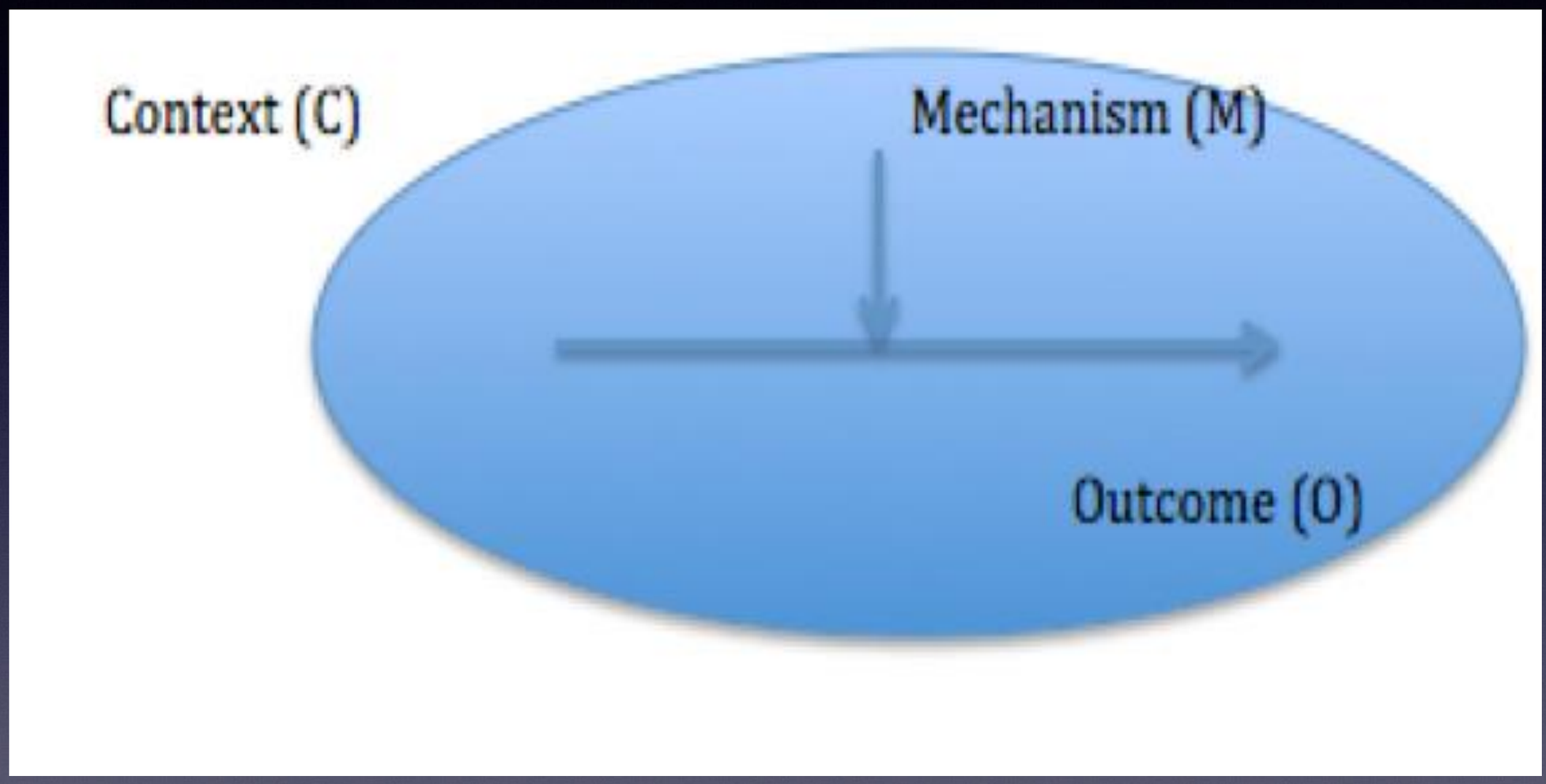
context

individuals
interrelationships
institutions
infrastructures

outcome patterns

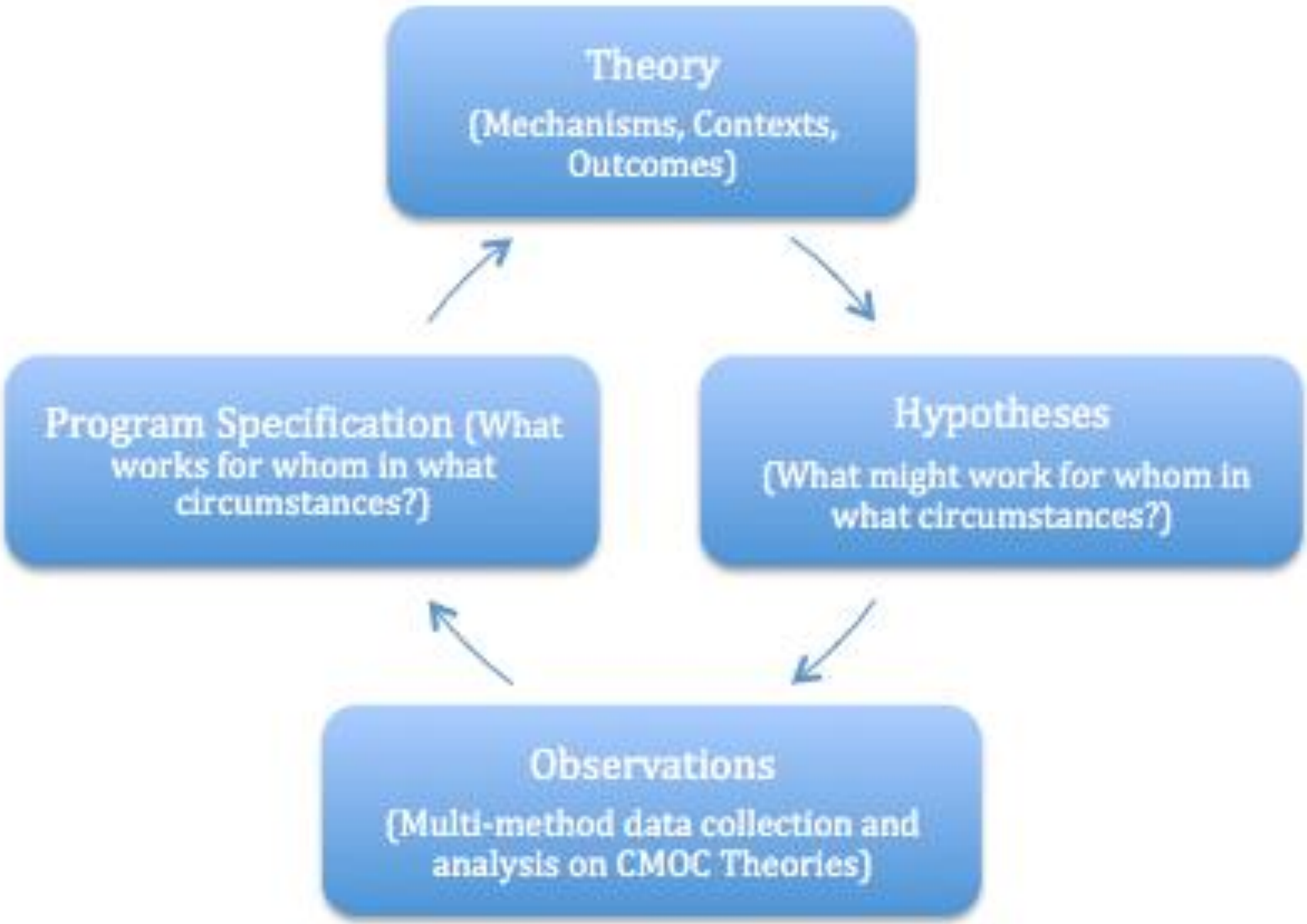
CMOC Theories

Mechanisms	What is it about a measure that may lead it to have a particular outcome pattern in a given context?
Context	What conditions are needed for a measure to trigger mechanisms to produce particular outcome patterns?
Outcome Pattern	What are the practical effects produced by causal mechanisms being triggered in a given context?
CMOC Theories	How are changes in the regularity (outcomes) produced by measures introduced to modify the context and balance of mechanisms triggered


Context (C)
Mechanism (M)
Outcome (O)

CMO	Resource	+	Context	→	Reasoning	=	Outcome
1	First time experience as a student volunteer on an IP primary care team		• **High Patient Contact Time** - When students have high levels of direct contact with patients during their first volunteer experience. • **Preparation Activities** - When students spend an equivalent or lesser amount of time in preparation for the clinic experience than in direct patient contact during the experience.		**A Valuable Experience, a Valuable Use of My Time** A Valuable Contribution To Patients - They reason that they made a valuable contribution to the patients A Valuable Use of My Time - They perceive themselves as having been well prepared for the experience and regard the clinic as being well organized. They see the clinic as having been a valuable use of their time.		They return to volunteer again.
	Resource	+	Context	→	Reasoning	=	Outcome
2	First time experience as a student volunteer on an IP primary care team		• **Low Patient Contact Time** - When students have limited direct contact with patients contact due to limited patient flow, cancellations or a lack of faculty clinicians to supervise student teams. • **Preparation Activities** - When the time taken to prepare for the clinic experience is greater than the time spent in direct contact with patients.		**Wasted Time** Feeling Frustrated They question the value of the clinic to them. They question their contribution to the patients and the clinic. They perceive the clinic to be poorly organized. They view the clinic as a waste of their valuable time.		They choose not to return to volunteer again
	Resource	+	Context	→	Reasoning	=	Outcome
3	Repeated participation as a volunteer in an IP primary care team		• **Shared Novice Status** • **Students lacking confidence** who are acutely aware of their limited knowledge and skills, and question their ability to perform adequately during patient encounters. Especially in front of peers and faculty, from their own and other professions. • **Fear and Anxiety** -They enter the clinic with some fear, and anxiety. • **Role modelling** by faculty clinicians		**Equal Status** During the team assessments and care planning they recognize that they other team members are also novices. This creates a level playing field. When the team members recognize that they share the novice status, they recognize being equally limited in knowledge and experience, and they come to view each other as equals.		Feeling equal to the other students in the team results in: Increased confidence in themselves an their abilities Reduced fear and anxiety
	Resource	+	Context	→	Reasoning	=	Outcome
4	Repeated participation as a volunteer in an IP primary care team		• **Role modelling of hierarchy and professional dominance** by faculty clinicians, clinic managers and/or senior students.		**Unwanted and Disrespected** Students from the non-dominant profession feel marginalized and excluded. They reason that their contribution and their profession is unwanted and disrespected. That all team members are not treated as equals and they feel lesser than, unequal. Creates a 'them and us' mentality		Reinforced negative stereotypes of the dominant profession. Reduced confidence Reluctance to speak up Reduced engagement with the dominant professions. May limit their future engagement
	Resource	+	Context	→	Reasoning	=	Outcome
5	Repeat participation as a volunteer in an IP primary care team		• **Equal Status** • **Confidence**		A safe place to speak up where my contribution matters		Changes in collaborative and communication behaviours

Realist cycle


Theory
(Mechanisms, Contexts, Outcomes)
Program Specification (What works for whom in what circumstances?)
Hypotheses
(What might work for whom in what circumstances?)
Observations
(Multi-method data collection and analysis on CMOC Theories)

If human life were long enough to find the ultimate theory, everything would have been solved by previous generations. Nothing would be left to be discovered.

(Stephen Hawking)