Realist Evaluation: A theory-driven evaluation

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🎓 Why exists?

📖 Philosophical basis

📋 Initial programme theory (IPT)

👥 Context-Mechanism-Outcome (CMO)

Realist Evaluation

Why exists

- Comparison with classic experimental designs

- Complex program or intervention

Philosophical basis

- Where it stands in ontology and epistemology

- Realism

Initial program theory (IPT)

- Realist evaluation cycle

Context-Mechanism-Outcome (CMO)

- Contexts

- Mechanisms

- Outcomes

Limitations of classic experimental design

Randomised allocation

Volunteer effect

Excessive variables

Horses-for-courses

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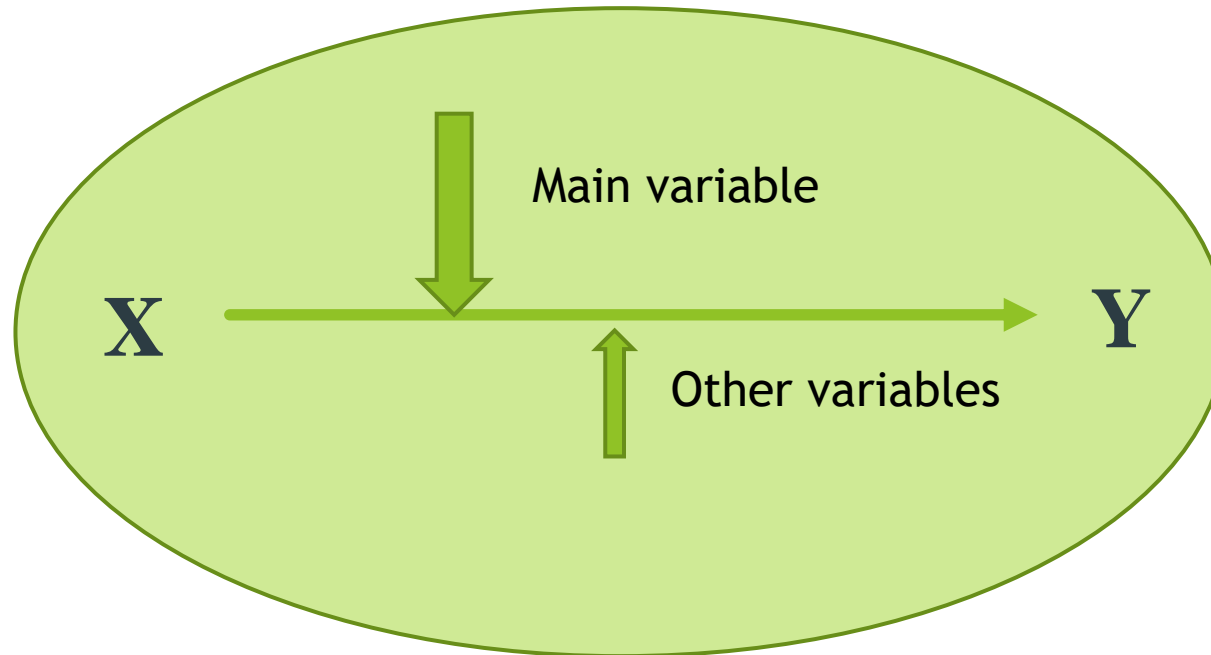
Attention shifted from the programme

	Pre-test	Treatment	Post-test
Experimental group	O_1	X	O_2
Control group	O_1		O_2

Successionist causation

"Does it work?"

Pawson and Tilley (1997)

Realist Evaluation

Generative Causation

"What works, for whom, under what circumstances and how?"

Pawson and Tilley (1997)

Ontological Depth: Reality is stratified in layers.

There is more to reality than what we are able to perceive.

Jagosh (2019)
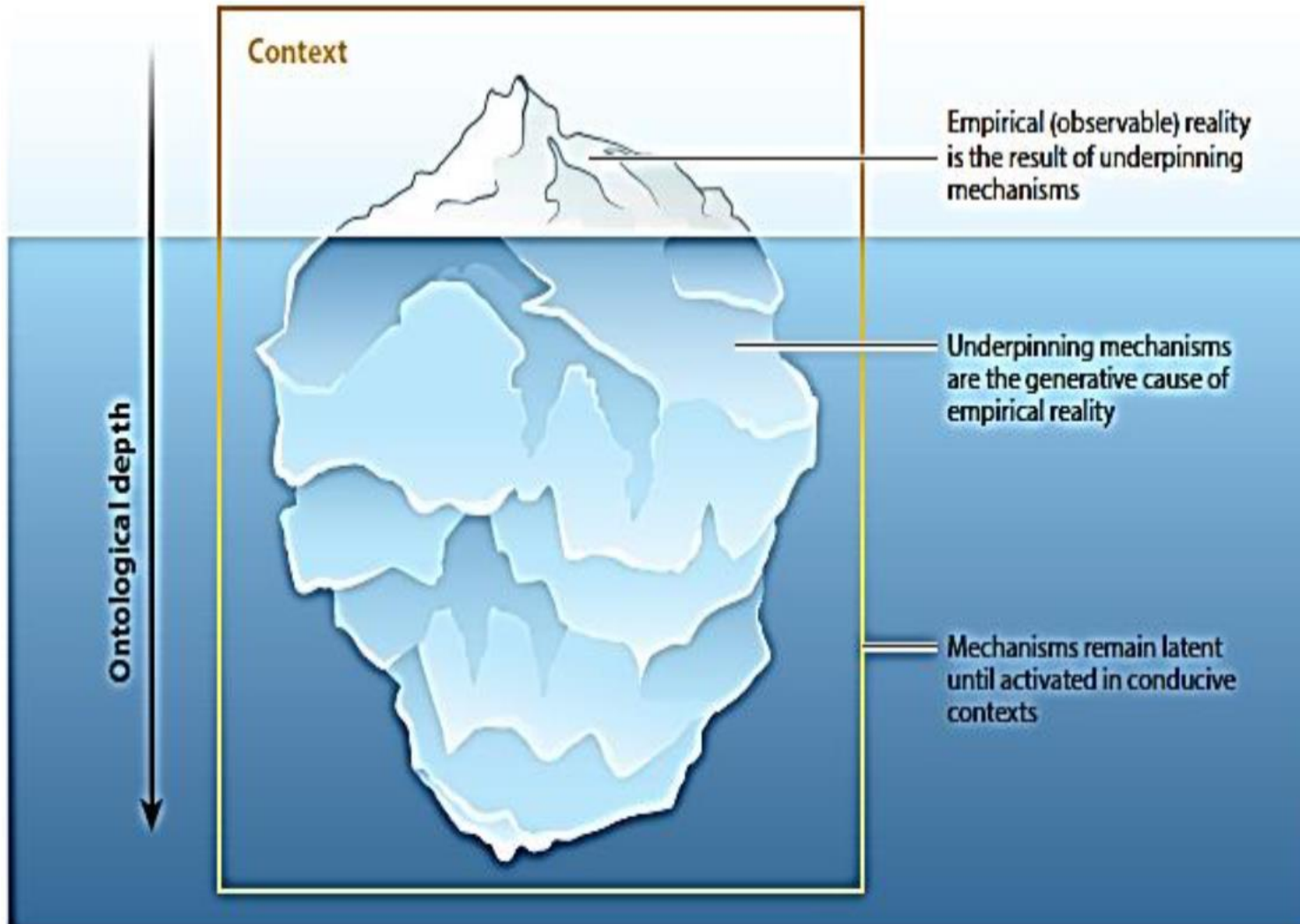
Realism: Where it stands in ontology and epistemology?

Search for generalizable knowledge
"Reality is directly knowable"

Search for experiential meaning
"Reality is what we construct it to be"

Positivism

Realism

Constructivism

Search for the alignment between reality and our constructions of reality

Sayer, A (2000)
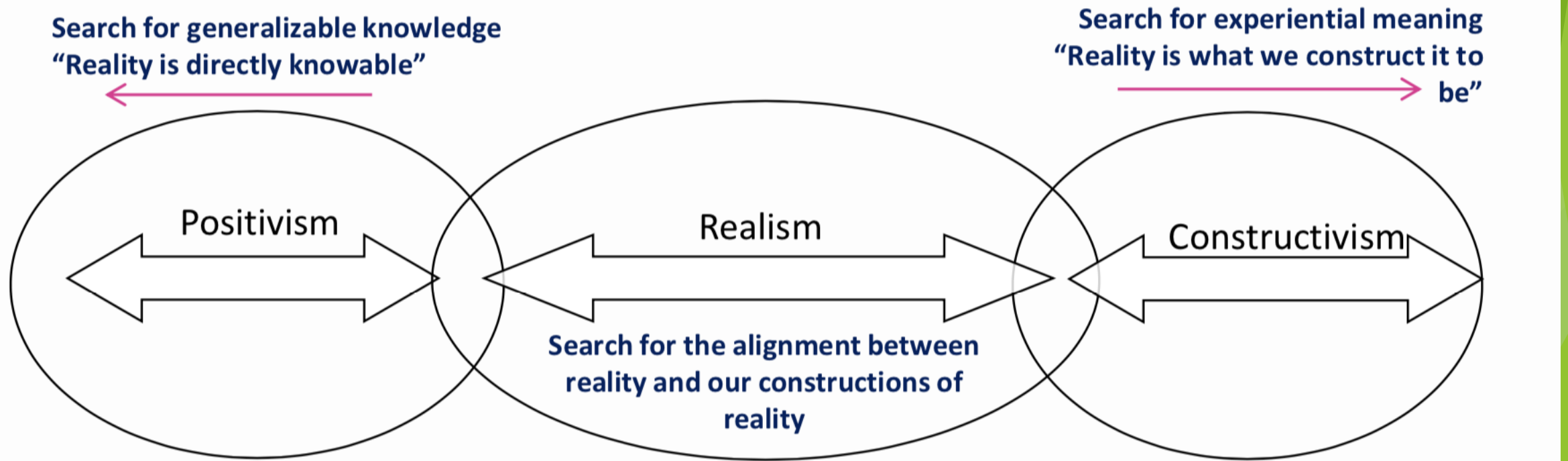
	Post-positivism	Constructivism	Realism
Independent reality	Yes, unlike positivism, it accepts that human values, experience can influence what is observed and how it is interpreted	No, reality is constructed or shaped by human cognition, perception, and interpretation.	Yes, there is an external reality that exists independently of our perceptions and beliefs
Knowledge acquirement sources	Can be identified and reported through observable facts but may be affected by human perceptions and experience	Constructed by human experiences, interactions, and mental processes	The unobservable knowledge can be acquired through capturing perceptions and experience
The goal of acquiring knowledge	To approach objective reality as close as possible	To establish understanding and interpretation of the world	To understand and interpret the independently existing reality
Causal reasoning	Successive causation	Prone to successive causation	Generative causation
Summary	Realism sits closer to post-positivism in ontology but differs in the causal reasoning approach. Realism sits closer to constructivism in epistemology		

Realist evaluation cycle

Theory — Contexts, Mechanisms, Outcomes

Hypotheses — What might work for whom, under what circumstances, why?

Data collection and analysis on C,M,O — Multiple data sources

Programme specification — What work for whom, under what circumstances, why?

Pawson and Tilley (1997)
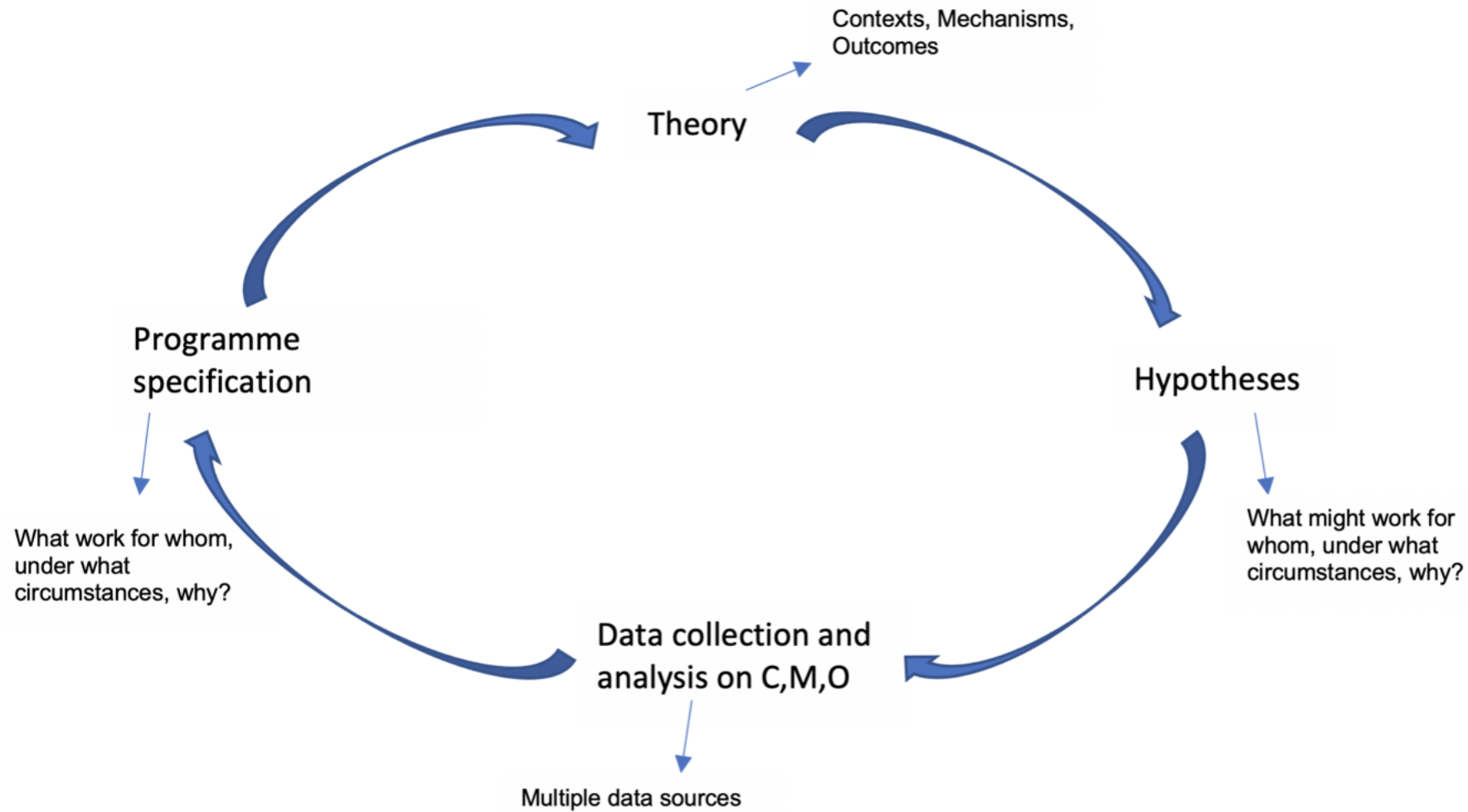
Programme Theories

Programme implementation result	Programme without programme theory	Programme with programme theory
Successful	The logic model containing intermediate processes or outcomes is absent, so it is hard to explain results	• Identify essential functional elements so the programme can be adapted to other settings • Identify intermediate outcomes
Failed		• Identify whether it is the programme itself or the implementation route that leads to the failure
Mixed results		• Identify whether the programme only work in specific contexts or among specific population

Programme Theories

Methods could be used to formulate Initial Programme Theories:

Literature review, Stakeholder consultation, Hunches and Retroductive thinking…

Funnell, S. C., & Rogers, P. J. (2011). *Purposeful program theory: Effective use of theories of change and logic models*. John Wiley & Sons.

Contexts, Mechanisms, Outcomes

Context

Elements in the backdrop environment of a program that have an impact on outcomes (e.g., demographics, legislation, cultural norms)

Mechanism

Resources offered through a program and the way people respond to those resources (e.g., information, advice, trust, engagement, motivation)

Outcomes

Intended or unintended effects based on context–mechanism interactions (e.g., changed outlook, service uptake, decision making, resiliency, health outcomes, self-efficacy, social connections)

Context + Mechanism (Resources)

↓

Mechanism (Reasoning)

↓

Outcomes

Jagosh (2019)

Smoking Cessation Apps

How smoking cessation apps work for Chinese smokers: what works for whom under what circumstances, and how?

	Data collection methods
Phase 1: formulating IPTs	Step 1- Qualitative systematic reviews (Zhang et al., 2024) Step 2- Systematic review of RCTs Step 3- Interviews with health workers (n=6)
Phase 2: testing IPTs	Realist interviews with smokers (n=24)
Phase 3: refining IPTs	Interrogating the findings of phase 1 and 2 to provide explanation of how the programme works for whom and in what circumstances

Smoking Cessation Apps: Formulated IPT (example)

Initial Programme Theory 1: using *'if…then…' statement*

"If smokers are not motivated to stop smoking or lack confidence to stop smoking (C), they are likely to engage with app features that provide visualisation of quitting progress, health benefits, financial savings, virtual rewards and educate them the benefits of smoking cessation and the risks of smoking (M), then smokers will be more motivated to stop smoking and more confident to stop smoking (O) because they gain a sense of achievements and understand smoking cessation is beneficial to them (M)."

Smoking Cessation Apps: Formulated IPT (example)

Programme theory	Contexts	Mechanisms	Outcomes
1. boosting motivation and self-efficacy	Smokers are not motivated to stop smoking or lack confidence in successful smoking cessation	M1: Engage with app features that provide visualisation of quitting progress, health benefits, financial savings, and virtual rewards and smokers gain a sense of achievement M2: Engage with app features that educate them on the benefits of smoking cessation and the risks of smoking. Smokers know smoking cessation is good for themselves	O1: Boosted motivation to quit smoking and self-efficacy increases O2: Boosted motivation to quit smoking

Smoking Cessation Apps: Refined Programme Theory (CMOC example)

Contexts	Mechanisms	Outcomes
1. Smokers are motivated to stop smoking and believe apps can help them stop smoking and engage with app features that meet their needs	M1: Smokers' extrinsic motivation is boosted (reasoning) through engaging with app features that show quitting progress and benefits (resource) (e.g., health or financial benefits, achievement system)	O1: Smokers stay abstinent in short term
	M2: Smokers' intrinsic motivation is boosted (reasoning) when they truly understand risks of smoking and benefits of smoking cessation through engaging with apps (resource) and when they get a sense of achievement and feel their smoking cessation journey are paying off through viewing quitting progress (resource)	O2: Smokers stay abstinent in long term
	M3: Smokers' self-efficacy is strengthened (reasoning) as they see their quitting progress and achievements within apps (resource)	O3: Decreased user engagement, but stay abstinent in long term

Smoking Cessation Apps: Refined Programme Theory
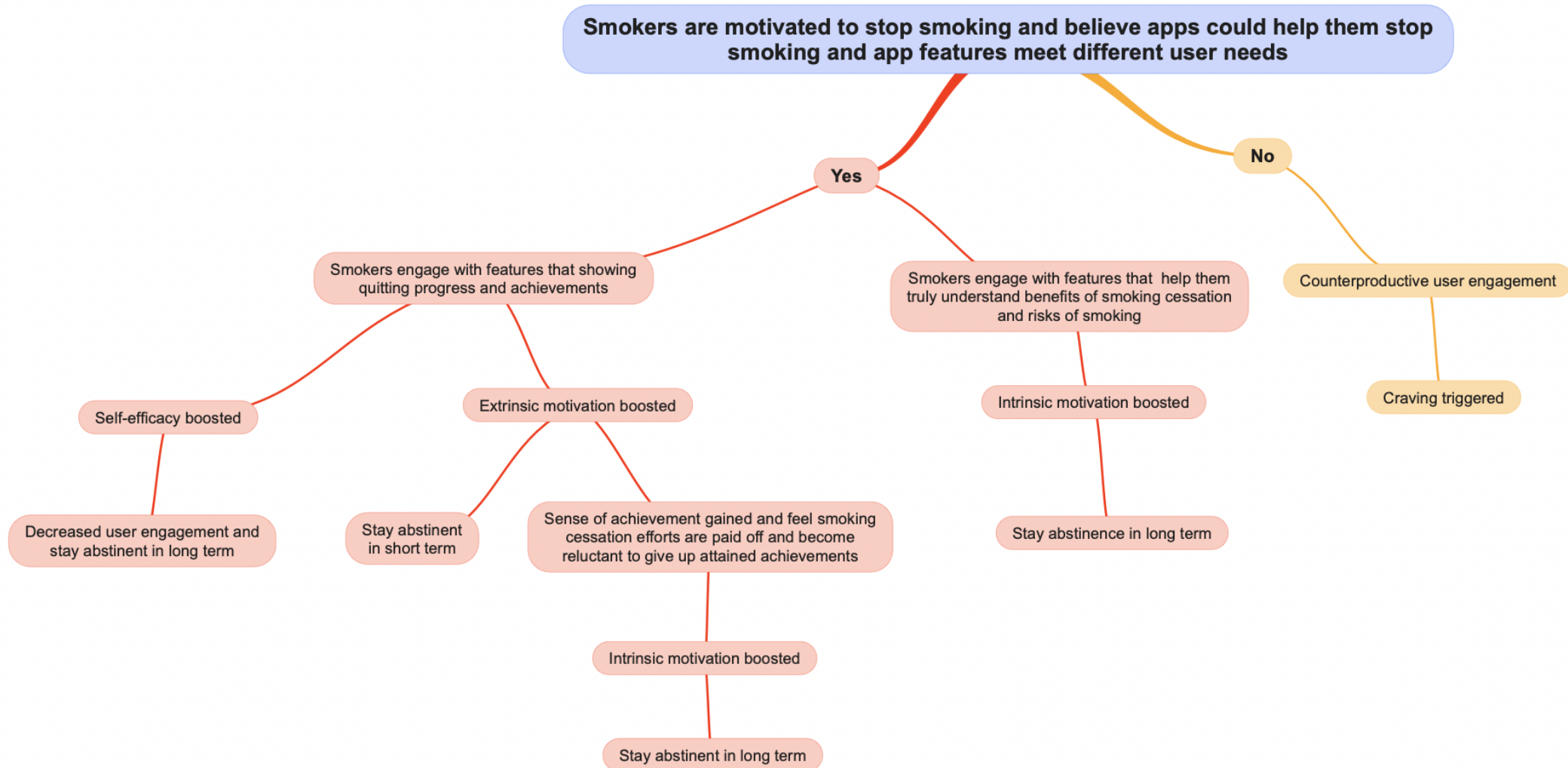
Highlights

- Rationale for realist evaluation exists as an independent methodology

- Realist evaluation sits somewhere closer to post-positivism in ontology and closer to constructivism in epistemology

- Realist evaluation cycle

- Initial Programme Theories

- Context-Mechanism-Outcome configurations

Thank you for listening!

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