

# **Critical Realism, Scientific Realism & Health Research**

**Wednesday 4th October 1.30pm-3pm (BST)**

**Realist Hub Session, Aston University**

**Priscilla Alderson**

Professor Emerita of Childhood Studies

Social Science Research Unit, Social Research Institute

University College London UK

# To Compare Critical Realism with Scientific Realism and Realist Evaluation

Common concerns and differences

Versions of Reality

Time and events, epistemic fallacy

Structure and agency

Values

Four stages of transformative change

Public sociology

Seven commitments for social research

# Realist evaluation and critical realism share concerns with

Realism

Practical aims to work for improvements in health and healthcare

Diversity and complexity (RE: what works for whom, when, in which contexts and ways, and why it works)

Causal mechanisms and outcomes

Structures and reflexive agents

Varied experiences and contexts and people's interpretive views

Macro and micro, quantitative and qualitative research methods

Public sociology

# Realist evaluation and critical realism: some differences

RE – main concern with research methods

Theories mainly hypotheses

CR – main concern with theories not methods

a philosophy of the natural and social sciences

‘No time for theory’? = theory - practical analysis,

Be aware to avoid power of tacit theories (sexism, racism)

Differences over time, agency and values

# Interdisciplinary basis for research

## Three levels of reality

In physics - falling rain

**Empirical** Impressions and images of many falling objects

**Actual** Specific numbers of objects fall in regular or irregular patterns or constant conjunctions (Might the patterns reveal the cause of the falling?)

**Real** Causal mechanisms are shown in their effects: Gravity (hypothesis) and hydrologic cycles are unseen causal mechanisms



# Three levels of practical reality in biochemistry - diabetes

**Empirical** People with diabetes have hypers when they feel hyperactive and hypos when they feel weak and faint

**Actual** Blood sugar levels rise during hypers and fall during hypos

**Real** The pancreas fails to secrete the hormone insulin that turns sugar into energy

# Three levels of reality in social science research on diabetes

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**Empirical** Interviews and surveys about experiences and views of people with diabetes

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**Actual** Observations of their daily life, interactions and events, and the effects on and of their diabetes; numbers of people affected, their healthcare needs and services; costs of diabetes care

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**Real** Their daily life with diabetes is influenced by class, income, ethnicity, political economy, types of healthcare services, their decisions, pressures from Big Food industry, junk food...

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Critical Realism Time sequence EAR	Scientific Realism Events
<b>Empirical</b> , experiences, views, analysis	Empirical data, statistics, analysis
<b>Actual</b> Natural and social structures, events	Evidence of actual variables, CMOs - contexts, mechanisms and outcomes
<b>Real</b> mainly unseen causal mechanisms	



‘Realists shun the successionist [sequenced through time] view of causation as a relationship between discrete events.’

They see ‘causal powers’ embedded timelessly ‘in social relations and organisational structures which they form’.

(Pawson and Tilley, 1997:64)

- Through constant interactions.

CR Open systems of countless causal influences interacting but in time sequences.

# Comments and questions?

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**Strong structures**

**Weaker  
agency**

**Weaker  
structures**

**Strong agency**

**Blend structure and agency**

**Inanimate Structure    dialaectic**

**Conscious Agency**



CMOs blend structure and agency  
within mechanisms – salty water?

CR Dialectic: connecting interactions  
not dichotomies

Do rivers shape landscapes or  
landscapes shape rivers?

Agents are shaped and reshaped  
by structures and they reshape  
structures through social processes,  
constant dialectic in time and space



# Structure agency culture

**Structure-agency-culture** interactions shape human life and society. Structures precede and outlast agents though are only enacted through human agency. All distinct and irreducible in continuous interaction and social change at all levels of social reality –  
**Morphogenesis, morphostasis.**

(Archer, 1982, 1988, 2000, 2003, 2013; Porpora, 2015)

# Structure, agency, culture

**Structures** - determining but not determinist because they compete in open systems of many forces

**CR** - Neither voluntarism nor determinism but dialectic.

**Agency:** meaningful causal power, informed by self-aware human intention and purpose, orientated to and evaluated by future effects. Internal conversations (Archer, 2003).

**Limited agency:** Conditions not of our own choosing. We are 'thrown' into contexts (Bhaskar, 1975). Actions can have unintended, counter-productive, unwanted, unpredicted effects. Choices may be limited to the 'least harmful choice'

## Add agency to CMOs? (Porter 2015)

Differences between conscious agents' psyches,  
choices and capacities  
versus inanimate resources, structures/contexts  
and social mechanisms

**Comments and questions?**

# Values

\* Value-freedom is essential if evaluation science is not to 'abandon analysis for ideology' – the basic error of CR

(Pawson, 2013: 81)

\* Health and society are value-laden. Accurate analysis takes account of this. Society is very unequal.

Sociology that does not adjust for this is also unequal.

\* Health visitor research and effectiveness – for people or cost-effectiveness?

\* 'Stake-holders' as if everyone and all stakes are equal.

\* Whose stakes? How do they affect research and practice?  
Epistemic injustice.



## Value-free apolitical research?

Much health research is funded and planned by government

Functionalism – to help present system to function more efficiently

Critical research – to change present injustices and inequalities that increase physical and mental illness:

austerity, policies to privatise NHS, to reduce benefits for sick and disabled people, cut much health-related spending. Is there RE work on this?

RCTs randomise individuals, examine how to change their beliefs and behaviours, may blame them. RCTs do not critically examine groups and structures too large to randomise – government policies, Big Food, Big Drinks companies, city planning, many other powerful influences hugely promote health or illness.

It is not possible to be value-free.

# Questions and comments

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# Critical Realism for Health and Illness Research

A Practical Introduction

Priscilla Alderson

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## Critical Realism for Health and Illness Research

By Priscilla Alderson

Winner of the International Association of  
Critical Realism best book award 2022

*"No doubt, students, researchers and others interested in critical realism and health will find the insightful discussion of this difficult, yet important, topic very useful."* **Ebenezer Durojaye**, University of the Western Cape

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Taking absence seriously.  
The positive is 'a tiny but  
important ripple on the surface  
of a sea of negativity'  
(Bhaskar, 2008:5).

Absence makes space for  
possibility, uncertainty,  
movement, emergence and  
transformative change.



**Need for method of transformative  
change over time**

**Problem of limited short-term thinking**

**Stop the boats**

**Stop knife crime**

**Build the wall**

# Four stage positive dialectic over time

## 1. **Non-identity, absence, avoiding the epistemic fallacy:**

stand back, suspend stereotypes, try to grasp reality/ontology, many interacting causal mechanisms;

what is missing?

non-identity – do not impose meaning, search for it

# Four stage positive dialectic over time

## 2. Negativity and power

recognise absence, need, suffering, contradiction,  
missing absent care  
intervene to negate negations, absent absences.

# Four stage positive dialectic over time

## 3. Open totality

observe interventions and their effects in bigger picture, the whole person, family, community, state, culture, globalisation, political and economic contexts, power2.



# Four stage positive dialectic over time

## 4. Praxis, self-transformative agency and power<sup>1</sup>, towards freedom, solidarity and justice:

movement, change, new self-awareness,  
all working consciously and intentionally for real change.  
With new insights return to 1 and repeat virtuous cycle.

# Negative dialectic and obesity

1. Assume negative stereotypes, miss reality/ontology of obesity, and its economic, political, industrial, societal, life-style contexts and of everyone as potential agents for change and justice
2. Incite general fear, anger, shame, stigma, personal blame and anxiety, increase inequalities, stress, sell school playgrounds and playing fields, neglect public parks and planning for healthy cities, promote businesses, profit and GNP instead of public health

# Negative dialectic and obesity

3. Promote global inequalities, profit, Big Food, Big Drinks, Big Pharma, and sedentary life-styles
4. Block self-awareness, shared consciousness and work for real change.  
No new insights or hope of progress,  
Keep repeating negative cycle.  
If policy does not work increase its pressure,  
stuck as stage 2.

# Ways forward

Connect healthcare sciences to more informed policy making

Connect different healthcare research paradigms into more informed, coherent, critical, practical, public sociology?

Recognise strengths and limits of specialties and how they can complement one another and work with practitioners, policy makers, general public and all concerned with great problems of pandemics, climate chaos, inequality?



Social science subspecialties  
all each playing as soloists?  
Or collaborating more?



# Questions and comments

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# Seven philosophical commitments to social science (Porpora 2015)

1. Respect each **agent** – an embodied centre of conscious experiences, intentions and motives
2. Respect objective human relations and **social structures** (competition, power, inequality working in structure and agency)

# Seven philosophical commitments to social science (Porpora 2015)

3. Combine **intensive micro methods** (observations and interviews), with
4. **extensive or macro methods**. Increase trust in intensive ethnography, narrative and history as sources of valid causal explanations. Less trust in statistics explanations or predictors.

# Seven philosophical commitments to social science (Porpora 2015)

- 5. Meta-theory** central to sociology as a social science. Explicit critical analysis of underlying theories and assumptions in all social research (about reality, existence, belief, proof and accuracy, knowledge, perspectives and methods). Theory is much more than hypotheses and definitions. What must the world be like for this to occur?



# Seven philosophical commitments to social science (Porpora 2015)

6. Recognise **truth**. Are social science relativism and natural science fallibilism grounds for cynicism, fake news, if they remove grounds for validating truth?
7. **Inherent values in social facts** (objectivity is being fair, open, impartial but not neutral or amoral about oppression).