

Critical Realism for Health and Illness Research: A Practical Introduction

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Critical Realism for Health and Illness Research: A Practical Introduction

1. Rethinking theories: the basis of practical research and problems with paradigms
2. Basic critical realist concepts
3. Structure and agency: making connections
4. Health and illness research: value-free or value-laden?



Critical Realism for Health and Illness Research: A Practical Introduction

- 5. Four planes of social being: more connections
- 6. Researching transformative change over time
- 7. The point is to change it: connecting research to policy and practice

Nine examples of research that apply critical realist concepts



Six claims about health and illness

1 Health and illness affect every interrelated aspect of all our lives.

2 Many causal influences are unseen by the naked eye (viruses) and only seen in their effects.

Six claims about health and illness

3 Effects may be very varied and unpredictable.

4 Health - a process, affected by healthy or unhealthy contexts, policies, behaviours and beliefs.

Six claims about health and illness

5 Health policies and decisions are practical, scientific and moral.

6 They often fail.

The six claims and positivist/realist research

1	Health and illness affect every interrelated aspect of all our lives.	Examine each isolated factual element and variable.
2	Many causal influences are unseen by the naked eye (viruses) and only seen in their effects.	Measure, describe, evaluate visible <i>evidence</i> , not unseen causes.

The six claims and positivist/realist research

3	Effects may be very varied and unpredictable.	Claim to make accurate predictions.
4	Health - a process, affected by healthy or unhealthy contexts, policies, behaviours and beliefs.	See health as a product, develop treatments like commodities, attend to individuals rather than contexts.

The six claims and positivist/realist research

5	Health policies and decisions are practical, scientific and moral.	Separate science from morality, objective facts from subjective values.
6	They often fail.	Neglect failed non-replicated research reports and routines.

The six claims and social constructionist/interpretive research tendencies

1	Health and illness affect every interrelated aspect of all our lives.	Examine each isolated factual element and variable.	Deny reality of facts, bodies and illness.
2	Many causal influences are unseen by the naked eye (viruses) and only seen in their effects.	Measure, describe, evaluate visible <i>evidence</i> , not unseen causes.	Trace effects in personal <i>perceptions</i> and experiences.

The six claims and social constructionist/interpretive research tendencies

3	Effects may be very varied and unpredictable.	Claim to make accurate predictions.	Trace personal beliefs.
4	Health - a process, affected by healthy or unhealthy contexts, policies, behaviours and beliefs.	See health as a product, develop treatments like commodities, attend to individuals rather than contexts.	Health and illness seen as changing perceived subjective experiences.

The six claims and social constructionist/interpretive research tendencies

5	Health policies and decisions are practical, scientific and moral.	Separate science from morality, objective facts from subjective values.	Cultural and moral relativism.
6	They often fail.	Neglect failed non-replicated research reports and routines.	Research may have uncertain vague relations with policy and practice.

Six claims about health and illness

1 Connect each element and treatment of health and illness into many broader interrelated aspects of our lives in the interdependent world.

2 Research unseen causal influences and explanations as well as their effects on health and illness.

Six claims about health and illness

3 Rely less on tracking correlations and making weak predictions.

4 Understand health as a process affected by interactions between individuals and their contexts (agents and structures).

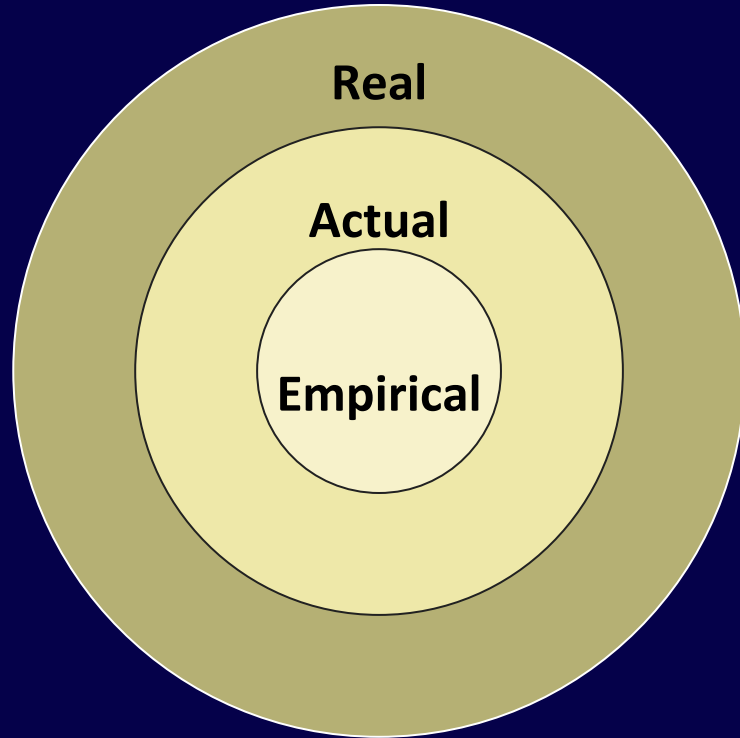
Six claims about health and illness

5 See how both science and morality affect decisions before, during and after research programmes and how values pervade social and clinical realities.

6 Resolve contradictions and disputes between natural and social scientists, and among social scientists, in order to reduce avoidable failings, promote interdisciplinary research and connect respected research into effective policies and practices to change the world.

Three domains or levels of reality?

Empirical
Actual
Real



Debates about meaning in critical realism

Search for real original meaning?

Show how new author's version is correct and others are inaccurate?

Privilege the most orthodox account?

Develop new insights and interpretations?

Debates about meaning in critical realism

Proffer a final version, or a base for developing new ideas?

Aim for uniformity or diversity in critical realism?

Messianic and infallible?

For Social Research:

Aim for range of most useful, practical, interdisciplinary interpretations
of CR concepts

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 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

Three levels of reality in social science research on diabetes

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

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

Real Their daily life with diabetes is influenced by class, income, ethnicity, political economy, types of healthcare services, and their decision-making in open systems

Authors' criticisms of RAE

Elder Vass et al. Journal of Critical Realism

2023

Replies

Confusing (TF, CN)

Clear

'Domains' are too separate

'Levels'? All concentric subsets of reality (NT) Constant movement between levels

Authors' criticisms of RAE

'Experience' rather than 'empirical'
(TF, CN, DEV)

Experience is part of events so could
merge empirical and actual (DEV)

Replies

'Empirical' includes analysis, words,
thoughts (epistemology) of actual
(ontology)

E and A overlap, yet have to be
distinct if they can interact (Archer).
We only observe many (intransitive)
events (online) and our (fallible,
partial, transitive) perceptions widely
differ (TN)

Authors' criticisms of RAE

RAE is redundant, too well-known, no need for 3 domains
(No examples of research are given)

Replies

RAE is much needed, to clarify and connect social sciences and resolve epistemic and ontic fallacies.
(My 40 years of research with many positivist colleagues)

'Events' rather than 'Actual' (TF, CN, DEV) though includes 'all material things and everything that happens to them' (DEV)

'Actual' includes things, people, material world

Authors' criticisms of RAE

Replies

Rename 'Real' 'potential'? (DEV)

'Real' includes enduring infinite powers past, present and potential: gravity, truth, love, evolution, DNA

RAE is scientist-based, anthropocentric (DEV, TN)

RAE is relevant to many species.

Rename 'empirical' as 'meaning?' (TN)
Keep empirical and experience (RPG)
Emergence separates the domains (TN) Keep emergence separate from RAE (RPG)

'Empirical' includes sensed, analysed experience, being and thinking.

Same things can work at all 3 levels, truth, consent.

Authors' criticisms of RAE

RAE do not really exist (TF, CN)
'Rhetorical device' (DEV) 'Reified metaphor' like 'disaggregated rock face with discrete levels of sedimentation' or like boxes for sorting laundry (RPG)

Replies

Map and guide to clarify confusions and connect positivism and interpretivism into larger framework of more coherent sociology
Same things can work at all 3 levels (diabetes)

RAE 'neatly' criticise empiricism (which fails to recognise the actual) and actualism (which ignores real inactivated mechanisms) (DEV)

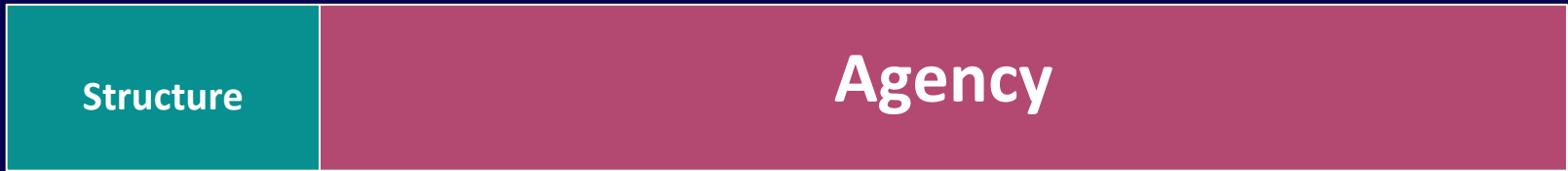
Health research needs RAE.
Positivist/realist EBM evidence-based medicine is now applied across social sciences, Campbell Collaboration.

Truth	Does it Exist?
Empirical	We misunderstand, misrepresent, can only ever partly know truth, tell lies
Actual	We break promises, mislead others, business betray their clients and staff, politicians renege on manifestos
Real	Like gravity, an infinite, unseen power we rely on for almost everything – expect water from taps, not acid

Level	Reality exists in:	Process of consent to surgery
Empirical	Thinking/feeling: explanations, ideas, descriptions, memories, statistics, facts, images, perceptions	Doctors explain, patients ask questions and discuss options to understand informed consent

Level	Reality exists in:	Process of consent to surgery
Actual	Being/doing: events, relations, structures, interactions, medical conditions, interventions, outcomes	Patients express consent or refusal, actively cooperate or resist staff may enforce treatment

Level	Reality exists in:	Process of consent to surgery
Real	Mainly unseen causal mechanisms; policies and economics of healthcare; design of services; personal motives, hopes, aims	Motive-led willing voluntary consent, guided by needs, emotions and values; journey from fear and doubt to trust, hope, courage, and commitment to surgery; practitioners' motives to promote health and high standards, and respect patients; consent - power, control over decisions.



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**.

(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 interaction, dialectic.

Structure agency culture

Agency: meaningful causal power, informed by self-aware human intention and purpose, orientated to and evaluated by future effects.

Internal conversations (Archer, 2003)

Structure agency culture

Limited agency

Conditions not of our own choosing,
we are 'thrown' into contexts (Bhaskar, 1975)

Actions can have unintended, counter-productive,
unwanted, unpredicted effects

The 'least harmful choice'

Dialectic: Interactions beyond dichotomies

(Bhaskar, 2008; Norrie, 2007, 2010)

Do rivers shape landscapes or
landscapes shape rivers?

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



Dialectic: Interactions beyond dichotomies

(Bhaskar, 2008; Norrie, 2007, 2010)

structure-agency, transitive-intransitive

reason-emotion, history-biography,
subject-object

parts-whole, nature-society

theory-practice, personal-political, cause
effect



Dialectic: Interactions beyond dichotomies

(Bhaskar, 2008; Norrie, 2007, 2010)

continuity-change, ontology-epistemology
quantity-quality

positivism-interpretivism, social-biological

enabling and constraining,

reproducing and resisting



Dialectic: Interactions beyond dichotomies

(Bhaskar, 2008; Norrie, 2007, 2010)

absenting absences, mistakes, collisions

from power2 to power1

searching for truth and free

flourishing of all



Dialectic – Marx

Materialism over abstract ideas and logic

through contradiction and opposition

interacting influences

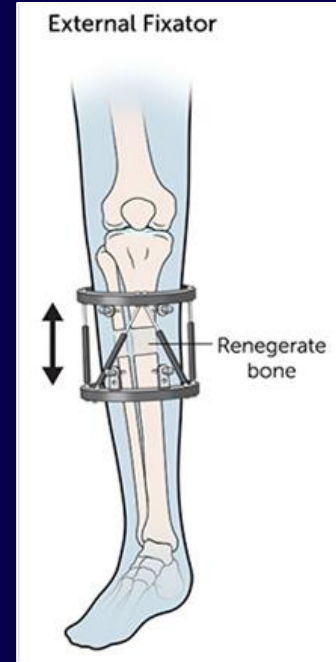
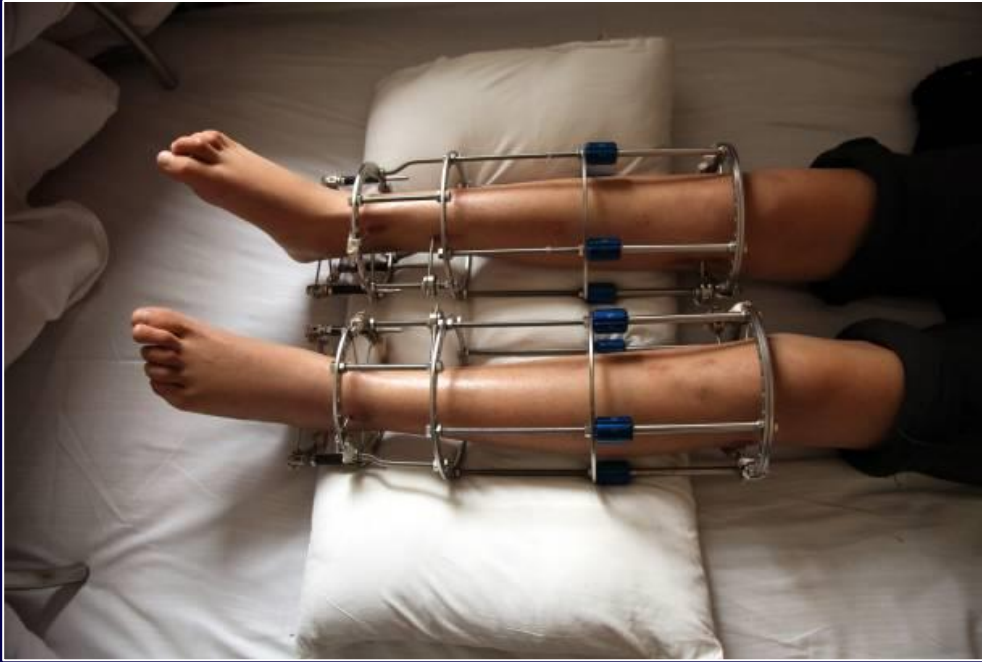
negation of negation (Hegel)

unity of opposites defined in relation to each other

totality and each concrete specific case

Agency-structure changes take time

Leg lengthening



Transfer of agency

Patients at home can now in 2023:

perform daily distractions (lengthening)

clean the pin sites and change bandages

administer pain relief

keep in contact with healthcare staff

take and send X-rays

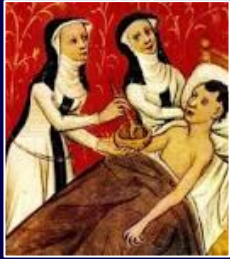
exercise and walk to regenerate their bone

<https://www.dryukselyurttas.com/post/all-you-need-to-know-limb-lengthening-surgery>

Margaret Archer

Structure, agency and culture SAC

1400s



1844



1890s



1948



1951



2000s

Four planar social being

All human being and activities happen on 4 planes of reality:

1. Material relations with nature – the body situated within the natural world
2. Inter-personal subjective relationships – between individuals and groups
3. Broader social relations and inherited structures
4. Inner being – the stratified personality

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.



Four stage benign dialectic over time

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

stand back, suspend stereotypes, try to grasp reality/ontology, many interacting causal mechanisms; non-identity – do not impose meaning, search for it

Four stage benign dialectic over time

2. Negativity and power

recognise absence, need, suffering, contradiction, missing
absent care

intervene to negate negations, absent absences.

Four stage benign 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.

Four stage benign dialectic over time

4. Praxis, self-transformative agency and power¹, 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.

Malign 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

Malign 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 malign cycle. If policy does not work increase its pressure, stuck as stage 2.

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).

Interrelated political-economic-ecological-social threats to health, peace and justice

- Global heating, rising sea levels, warming oceans, floods, storms, polluted water, air and soil
- Droughts, growing deserts – famine, conflict, migration
- Loss of interdependent species - pollinating insects, vultures
- Pandemics, ‘wildlife’ in farms, labs and markets, antibiotic-resistance
- Land used to feed livestock
- Poor housing, design of cities, transport, energy planning and infrastructure
- Inequality of income, education, careers, life-styles, diets, exercise

Interrelated political-economic-ecological-social threats to health, peace and justice

- Ruling class are highest emitters of CO₂, climate crisis deniers, users of private services, reducers of state care
- Neoliberal refusal to pay reparations, forgive debts to World Bank and IMF
- Global finance, trade, advertising, social and mass media, education
- High child mortality and lack of contraception services lead to high population growth
- Populist governments blame the poor, unemployed, migrants and incite violence
- Wars, civil unrest, gun crime, police, prisons....

**The point is to change it:
Utopian research – eudaimonic
societies**

Reaching new horizons and vistas

Discover new ways forward along the
journey (ontology not
epistemology/maps)



The point is to change it: Utopian research – eudaimonic societies

Prefigure, imagine, enact,
experiment, work out better
ways of living and being
together

(Levitas, 2013; Harvey, 2012)

Combine multiple, diverse,
contradictory, RAE realities
(D'Souza, 2012)



**The point is to change it:
Utopian research – eudaimonic
societies**

Work together for ‘a normative order informed by the values of trust, solidarity, sensitivity to suffering, nurturing and care in universal, reciprocally recognised rights, freedoms and duties’ (Bhaskar, 2008:296)



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