

**The basics of research thinking:
theories, hypotheses, variables, and the nature of evidence**

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RECORD

Rationale

Getting to the bottom of what makes our research **rigorous**

The basis of **disciplined procedure and thinking**

What we need to **lay bare** to make our research convincing

To **demonstrate** that and how we are accomplished researchers

What we should **submit** to

What we should **own** and **question**

Using my own research trajectory - teenage → undergraduate → postgraduate →
doctoral → academic

Making sense of the world

Theories

The nature of the world and knowledge - ontology, epistemology?

Oppositions help discipline the mind - making the familiar strange etc

My theorising about theories that I read

Theoretical perspective 1	Theoretical perspective 2
Organised world that governs us Plato's republic Structural-functionalism - Emile Durkheim Feudalism Ideology as a product of organised culture Positivism - ethnography as justification of empire	Messy world where we can take action Omar Khayyam, Tao Te Ching Social action - Max Weber Ideology as distortion - Karl Marx Postmodernism The researcher as implicated - intersubjectivity



The **positionality of literatures** and **our positionality** within them

Generating (not limiting) **personal thinking**, critical literature review, research design

Undergraduate reading of primary texts

My undergraduate notes in the margins positioning Karl Popper (1966: 91, 98)

the way, the much debated question whether Plato's 'justice' is distinguishable from his 'temperance' can be easily answered. Justice means *to keep one's place*; temperance means *to know one's place*—that is to say, more precisely, to be satisfied with it. What other virtue could be proper to the workers who fill their bellies like the beasts?) When temperance has been discovered, Socrates asks: 'And what about the last principle? Obviously it will be justice.'—'Obviously', replies Glaucon. 'Now, my dear Glaucon', says Socrates, 'we must, like

THEY ARE BEYOND HELP BUT BEAUTIFUL HOPEFUL

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anyone should hold that 'justice' means the unchallenged rule of one class, then I should simply reply that I am all for injustice. In other words, I believe that nothing depends upon words, and everything upon our practical demands or upon the proposals for framing our policy which we decide to adopt. Behind Plato's definition of justice stands, fundamentally, his demand for a totalitarian class rule, and his decision to bring it about.

But was he not right in a different sense? Did his idea of justice perhaps correspond to the Greek way of using this word? Did the Greeks perhaps mean by 'justice' something holistic

POOR ARGUMENT! PIECEMEAL ENLIGHTENMENT!

Hypotheses

A means for **testing ideas - testing a theory** - 'messy world'

'**IF** I ask different questions, "the participants" will tell me something different'

Intervention

Recognising asking questions as intervention

Not just finding out what they think

Already recognising that this is **not a neutral thing**

Epistemology?

Example 1: interview with a so-labelled 'international student'

S1 has just said that men and women in her national culture **never** hug or hold hands in public

Two **moments** are particularly relevant here The first one is when **R2** asks **S1** the question 'when you go to the capital, do you see things there which also don't fit what you expect or what you would like?' ... This question **opens up** a series of reflections in S1's turns, for example, in noting the presence of both religious people and 'atheists' everywhere.

The second meaningful **moment** is where **R2** ... refers to his own ... experience of seeing two young people hugging on a park bench in a large city in a neighbouring country to **S1's**. While this is not her country, it ... becomes a **thread that S1 then picks up** with an explanation that **also** in her country it is **possible** to see people hugging and 'catching hands' in the street. **R2** then connects it to the narrative of modernity; and **S1 introduces** the narrative of Facebook, and then of corruptive influence, each building **threads that both speakers can share**. (Amadasi & Holliday 2017: 263–264)

As important as the data extract

Successive action

But this is not enough

Hypothesis → where to go next → hypothesis → where to go next →

Action research? A spiral of exploration (McNiff & Whitehead 2002)

Gradually developing theory and models

Getting closer to **what might be going on**

Theory → messy reality → multiple possible outcomes

‘IF I find a way of being more open and responsive in my questions, the participant will ...

BUT, could there be other realities that I’m closing off

Searching for the (means to allow) the **unexpected**

Variables

Things going on that will affect outcomes

Experimental design tries to minimise to those being measured

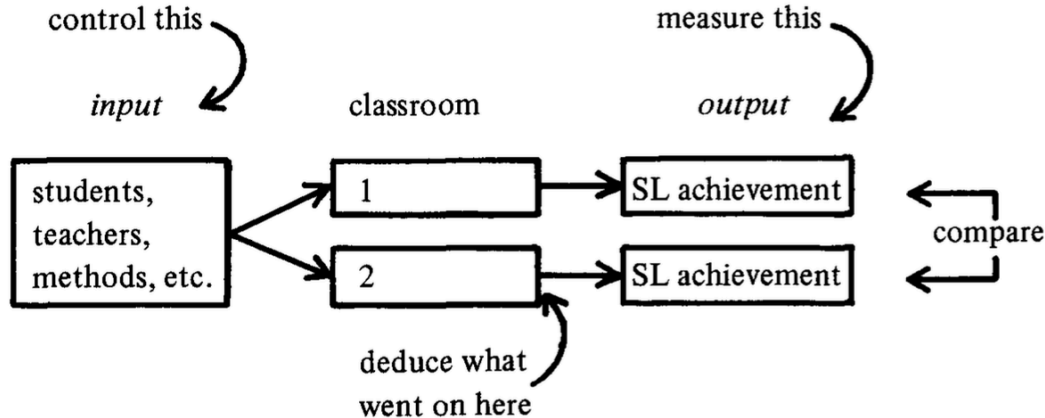
Qualitative design seeks **settings** rich in variables

More scope for the unexpected to emerge

Variables that might not previously have been noticed

'Black box' phenomenon

Critique of experimental design in studies of teaching and learning (Long 1980: 2)



Too many variables that cannot be controlled

e.g. teacher style, interpretation of methods, student preoccupations, agendas and relationships, classroom and institution culture and conditions, multiple social, cultural and other factors

Hypotheses again

Ethnographic field work is primarily a **hypothesis-generating**, not hypothesis-testing, undertaking. ... It benefits from its eschewal of the 'blinkers', in the form of a prespecified list of behavioral categories which restrict the data ... and, hence, the variables it considers. (Long 1980: 27)

Relates generally to **all good science**

Uncontrollable variables surrounding the interview event

Instructions,
clarity, putting
at ease, talking
time, turns

Big and personal narratives
about class, culture, gender,
status, age, research,
interviews, academics,
language,

Room, furniture,
physical positioning,
lighting, equipment,
spacing, lighting

Privacy, safety, power,
image, identity,
expectations, anxieties,
positioning, personal
histories



Clothing,
demeanour, eye
contact, voice
volume,
communicative
ability

That day: recent &
upcoming events,
relationships,
mental health, time
to think

How the
event was set
up, approach,
politeness,
timing

Hindrances or possibilities?

Example 2: Another interview learning from the earlier one

S: **So she said**, 'I've been refusing students all this time because of you; and now you are leaving simply because you don't like the house', and, she said, '... let me tell you that you've been so rude with us. **And it was like a shock for me**, because **in my country**, I mean all people who know me ... say my behaviour as an example of politeness and being kind and so on. ... **I kept silent** and ... **she said, 'you will never be part of this culture'**.

R2: **Ooh.**

S: **[laughing]** I really wanted to tell her that ... **I already have a culture.** I don't need to belong. I already belong to a culture. ...

R2: **Were you saying this because** you were angry with what she was saying?

S: **Aah.**

R2: She she she is building a barrier.

R1: Mmm.

R2: **So you're also responding to this barrier.**

... **We are not disclosing** whether or not S is herself 'non-Western'. ... **Neither do we know** if S's interpretation of what happened is correct. This is not important. What is important is that S's account represents **a personal narrative of independent resistance** which ... **resist[s] the Western imagination** of a culturally deficient Other and [is] able to **transcend structural boundaries**. (Amadasí & Holliday 2018: 247)

Introducing a new model: the varicultural flow

Based on developing theory (Holliday 2026)

Outcomes from testing hypotheses

A seamless flow of cultural diversity

Within which **we construct** culture

Providing a common experience with which to
find threads between us

Giving it a name

But, a heuristic device

Not to be believed as a true representation but
a device to help us understand

But, in opposition to more established theories
and models

Therefore represents **‘the messy world within which we can take action’**



Further development of the theory

Theoretical perspective 1.1	Theoretical perspective 2.1
Positivist (finding examples of established stereotypes) Organised world that governs us ‘People from “other cultures” are essentially not the same as us’ ‘The can’t fit in unless they leave their cultures behind’	Constructivist Messy world where we can take action and construct culture While we are brought up with different cultural beliefs, practices and styles ... we share abilities to work things out, solve problems, think criticality etc We need to try harder to see this TP 1.1 is an ‘us’-‘them’ ideological construction

New hypothesis

‘**IF** I apply this developed understanding to what I observe, **I will see something different**’

Example 3: Making a real difference to interpretation

Choosing varicultural threads rather than essentialist blocks is therefore about **recognising** cultural styles as different *projections* of how we wish to express ourselves. **This is of a similar order** to the fashions we choose to wear, social media imagery we **choose** to post, press imagery we choose to publish, posters we choose to display, speeches we **choose** to listen to or make, political parties we **choose** to join or support, and other **choices** of products that can represent ideological discursal trends. ... About **how a particular group of people project themselves - with which we can identify** because **we all know** about how we go about projecting ourselves.

Therefore, in the case of **my interaction with the health professional**, that he may be speaking English with a particular accent, wearing a particular type of jewellery, a hairstyle or his uniform in a particular way, ***must not*** be judged as a sign of ‘us’–‘them’ incompatibility. **Instead, I must find threads** with the fact that **I also** employ styles such as these with which to represent myself.

... **My thread with him** ... could come from **the experience we all have** of needing to adapt a technicalised professional or otherwise specialised discourse to communicating with a layperson, or vice versa. **This could be** from all sorts of customer relations, such as buying or selling a computer, to teaching someone or being taught how to cook or drive. (Holliday 2026: 22–23)

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