

CHIP-1

Concepts and history in psychology

Steve Draper, Glasgow University

<http://www.psy.gla.ac.uk/~steve/courses/chip.html>

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My angle on, contribution to, CHIP

What do I know? That the philosophy of science course I did as an undergraduate has stayed with me more than any other module.

My own overall learning aim for this segment is to expand your wider critical thinking skills, by raising issues about the worth of psychology overall (not just the worth of individual studies). This is positive as well as negative senses of "critical".

If you want to expand your mind with issues you'll still be thinking about years from now, read round these lectures, do the homework, argue with each other at length.

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My overall learning aims for CHIP

Lorna has talked about the history of people and concepts in psychology: about what has actually happened.

My aim is to ask whether it should be like that, did it have to be like that, how can we understand psychology from outside it.

This is trying to equip you with some notion of philosophy of science; and some idea about critically evaluating psychology: what are its strengths and weaknesses?

How certain, how trustworthy are its foundations?

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My overall learning aims for CHIP (2)

Another way of seeing this is that it is an attempt to equip you for a higher level of critical thinking.

Types of critical thinking

1. Critiquing the design of a study (methodology)
2. Critiquing whether the right question / hypothesis is being tested to get at the issue; the right issue within the topic.
3. Critiquing against what outsiders would like psychology to know. Is it the right topic at all?

In any specialist degree you mainly get taught everything regardless of its relative importance. Here: I hope you begin to think about the relative importance of different topics.

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This lecture addresses, in very different words, ch.8 of Brysbaert & Rastle.

Brysbaert & Rastle (2009) Historical And Conceptual Issues In Psychology (Harlow : Pearson/Prentice Hall) [Lib: Psychology B351 BRY]

Although almost everything I say I "got" from someone else, I'm not an expert, I have no proof (neither do others), and you have to decide what you yourself think. Put more in line with critical thinking, you have to assess what arguments seem most coherent based on what is available to you.

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Part 1:

The Newtonian triad

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Why talk about philosophy of physics?

Last year, some students objected to material on the philosophy of science applied to physics: why not just to psychology?

- Most philosophy of science has been about physics: that's what there is to read, mostly.
- Physics is about the oldest, most developed part of science (say 4 times as old as psychology)
- Psychology traditionally, and perhaps still, has "physics envy": it wishes to say it is based on definitive experiments, not intuition and personal experience.

On the other hand:

- Different sciences are different in their underlying methods because of their different subject matter. So it's right to challenge whether arguments developed about physics apply to psychology.

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The meta-issue

Why should there exist, and why should we be able to discover, general scientific laws?

The essentially irrational or religious underpinning of Newton's programme, and hence of science. [Michael White]

Even if some kind of understanding is possible for an area, what kind of understanding is possible / best?

(For me, the by far the biggest intellectual contributions are those that establish the answer to this for each discipline or area.)

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Isaac Newton's schema for science

- 1) A theory
- 2) Calculation / prediction: generate testable consequences from the theory. (A theory that can explain anything implies we shouldn't think any more, or learn any more.)
- 3) Observation, experiment

There are many questions about what does and doesn't count as cases of each of those.

But still more important: How do they relate to each other, how do you go from one to another?

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Induction

Recipe 1: collect cases, invent a theory ("induction") that generalises and covers all of them (and excludes known cases that should be excluded). Observation → Theory

Popper-1: a single counterexample defeats a theory.

So a theory can never be proven.

So recipe-1 can't be the whole story.

Implies: induction → theory → collect new cases as tests

N.B. in sciences such as zoology, astronomy, observing cases and discovering novelties is still the most important activity.

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Falsifiability

Primacy of (grand) theory.

Theories that can explain anything, or are continuously adjusted to cover any new case, don't really add value (they are just a self-abuse of our feeling of understanding).

Popper-2: it isn't a scientific theory unless it is falsifiable

This puts weight on the 2nd leg of the Newtonian triad: making "predictions" i.e. calculating new consequences of the theory.

Prediction: future or consequences? Predicting the past.

(Evolutionary psychology)

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Research questions for homework

1. What are the cases (the kinds of cases) where experiment is not used in psychology.
How do the objections apply to each or not?
2. Does experiment have the same power if you don't manipulate causality, but just select different types of people for the two groups (e.g. different personality types)?
3. What examples can you think of or find, where statistics act like a telescope: to see things that otherwise we could never know.

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