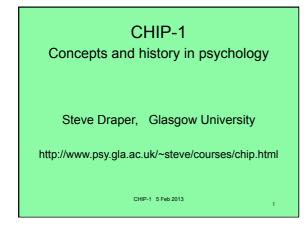
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What do I know? That the philosophy of science course I did as an undergraduate has stayed with me more than any other module.

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.

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?

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 (e.g. its methodology, its stats)
- Critiquing whether the right question / hypothesis is being tested to get at the issue; the right issue within the topic.
- 3. Critiquing psychology from the outside: what <u>should</u> psychology be like? e.g.
 a) Critiquing against what outsiders would like psychology to
 - a) Critiquing against what outsiders would like psychology to tell them.
 - b) Is it the right topic at all?
- c) How do its methods compare to other sciences?
- d)

My overall learning aims for CHIP (3)

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 within psychology.

In developing an outside view there are various approaches. One is to look at philosophy of science, which is largely based on physics.

However each discipline is different because different subject matter usually requires different methods based on different types of evidence. I'll begin with this.

1) What types of explanation and data does psychology use?

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A. Intrinsic mental schemas

One type of basic approach could be derived from the different ways a typical person has of viewing other humans:

- As an intentional being (how we also view animals, ...)
- As an object (cf. surgeons cutting someone up)
- As an individual with a limited viewpoint, limited information: theory of mind.
- As an individual with a history of interacting with us: <u>?</u> <u>Advanced theory of mind</u>.

B. Neighbouring disciplines

Another angle is that it can be useful to look at neighbouring disciplines and review whether we should use them or some of

- their work. E.g.
- Sociology
 Anthropology
- Evolution theory (biology)
- Economics
- Physiology
- Neurology

C. What kinds of data must psychology explain? (1)

A third angle is to ask what kinds of data should be explained? I.e. before psychology began, what areas (and questions) would we expect it to explain?

(Just as for physics, we'd expect it to predict the weather, predict the properties of wood and stone, $\ldots)$

In particular, what types of data or observation?

- From a prior, outside, view we might expect:
- A. Behaviour: What people do.
- B. Introspection: What people think, feel, are aware of.
- C. Physiology: What their bodies do (physiology) related to this.
- , .,
- D. Functional: what any organism must doE. Social: requires analysing a group, not an individual

What kinds of data must psychology explain? (3)

Just because we want an explanation, doesn't mean one will ever exist. That's true of any topic: no guarantees in advance. ("Randomness" is a technical term for circumscribing things we think we can never predict.)

Perhaps humans can never understand humans (though a more intelligent species could): how could a mind use only part of its complexity to describe all of its complexity? Wouldn't that be a mental version of the Tardis?

There is no prior guarantee that one science must be able to unify the 3 kinds of data. One possibility is that there will end up being 3 sciences, each addressing only one kind. Behaviourism. ¹¹

What kinds of data (2)

What types of data or observation?

- A. Behaviour (non-verbal). What the person does as a whole. External observation of the whole person.
- External observation of the whole perso
- B. "Verbal reports":
 - What they think, feel, are aware of. Conscious thoughts, as observed through language
 - What people say
 - Introspection
 - Attitudes
 - 711110000
- C. Physiological (and neurophysiological) observations. Observing internal bodily events.

What kinds of data (4)

But nevertheless:

- Like Newton, we much prefer unified grand theories that link disparate things, and disparate types of data
- Pre-psychology commonsense expects us to link these things.
- Theories which don't, lack something we feel we want If it's just behaviour then it's not psychology but ethology (animal behaviour) If it's just feeling then it's literature, not science. If it's just physiology then it's medicine, not psychology.

Critical thinking tip:

A lot of psychology can be criticised for ignoring or covering up shortfalls of this kind i.e. dealing only with one or two of these types, rather than scrupulously reporting and discussing what is lacking (so far) in "theories" of a given area. [e.g. emotion]

Internal inconsistencies (0)

We could, then, see psychology as a whole as attempting to link, and make consistent, fundamentally different types of evidence. Obviously it is interesting, often amusing, when they contradict each other e.g. when a person says one thing but does another

- (hypocrisy? unconscious motives?); Or intend to do one thing but actually do another (psychology of
- human errors)

There is a somewhat unsavoury tendency in academic psychology to publish experiments that seem to sneer at the participants: demonstrating how silly they are. (Perhaps to get over objections that psychology is mostly just proving what already seems obvious to ordinary people.)

But an opinion that I have is that a large part of mental life is doing work to maintain and improve internal consistency.

Internal inconsistencies (1)

The broad category of thoughts we are aware of and can report on in language has many subdivisions.

And sometimes we observe contradictions even within that one category, besides contradictions between the broad categories (e.g. of what people say and what they do).

Even within the one evidence "type" of what people can be aware of, we quite often observe dissociations (contradictions).

This further elaborates the general point, that the wished-for, apriori scope of psychology is to look for unified explanations that apply to all these types of data.

Internal inconsistencies (2)

- In researching children's conceptions of physics:
- Predict
 Explain

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- Behave (intentional behaviour)
- Slips and mistakes
- "Catalytic" assessment
- Attitudes and behaviour (expectancies, theory of planned behaviour)

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Audio-tagging facility

If you have an advanced gizmo such as an iPad or 3G phone, you can access a facility for adding tags (labels, pointers) to the recordings of these lectures ("podcasts").

And share these tags with the rest of the class, thus making the recordings increasingly useful by providing an index into them. <section-header><section-header><section-header><section-header><section-header><section-header>