

CHIP-6
 Concepts and history in psychology

Disciplinary neighbours

Steve Draper, Glasgow University

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

CHIP-6 13 March 2012 1

Introduction: disciplinary neighbours

2

This lecture topic

This lecture is about disciplinary differences, and relationships between disciplines.

Why does this matter?
 One way to understand how psychology operates, and to evaluate it, is to compare it to other disciplines.

3

The WHO definition of health is inter-disciplinary

“Health is a state of complete

- physical,
- mental, and
- social well-being;

and not merely the absence of disease or infirmity.”

[Medicine, psychology, sociology?]

<https://apps.who.int/aboutwho/en/definition.html>

4

Psychology's neighbours

Sociology
 Physiology, neurology
 Biology, (evolutionary psy)
 Computer science, artificial intelligence
 (Education) IQ, testing (psychometrics), learning
 Psychiatry, medicine
 Personnel management (HR); management
 Organisational psy
 Linguistics, psycholinguistics,
 Anthropology

5

A map: where would psychology go?

Science Single answers, original questions	Computer Science Medicine	Chemistry Philosophy
“Art” Original answers	Sculpture	Literature
	Applied single context	Unapplied (Pure) single generalisations

6

Disciplines (0)

Not necessarily very permanent

Vision science

Botany vs. Zoology

Immunology

Biochemistry

Languages → cultural studies, the fragmentation of language depts.

7

Disciplines (1)

Disciplines really do shape a person's mind. They think differently about things depending on the discipline(s) they've been trained within.

What do you think disciplines are defined by?

(subject matter, research approach, teaching method, ...)

Take a few minutes solo, and write down what you think. Only then, discuss/debate your answer with a neighbour.

8

Disciplines (2)

Disciplines really do shape a person's mind. They think differently about things depending on the discipline(s) they've been trained within.

⇒ So one possible way to define them is as a way of thinking, a characteristic approach to problems. [compSci, ...]

Subject matter [but: physics vs. mechanical engineering; nursing vs. being a doctor]

Even the meaning of "research" differs. (It's a science word, not normally used by Arts scholars.)

Teaching ("signature pedagogies")

9

Dimensions (1)

Can we find a system for classifying, mapping the set of existing disciplines? Are there just a few underlying ways in which they vary from each other?

Many (not all) studies come up with 2 dimensions.

Different authors describe these differently, but my version is:

- 1) Pure vs. applied
- 2) "Arts" vs. science .

10

"Arts" vs. science

Art vs. science // objective vs. subjective // abstract, concrete // soft, hard // public, private

Science studies what nature has; inanimate effects.

The "Arts" study what humans have done or created; human agency.

So "Arts" address intentionality, perspectives, feelings

So are likely to require uncertainty, perspectives, relativity.

You might say they are reflection on past human action, and look for (almost always multiple) perspectives.

Often (not always) this is grounded on human subjective judgments (– what other standard is relevant?)

These in turn lead to characteristic modes of thought: unresolved questions, seeking to problematise not problem-solve.

11

N.B. "Problem solving"

Employers frequently say they want graduates to do this. But really there are 3 contrasting component skills:

- a) Problematising: taking what others are letting slide by as OK, and flagging it up as something that needs treating as a problem. Every time a big fraud in a firm emerges, it is because people (auditors, ...) let it by. In fact employers need problem-spotters, although not all realise this.
- b) Redefining an identified but ill-specified problem into something specific that can be addressed.
- c) Solving it: pushing through to an actionable decision and conclusion. Generally speaking, the Sciences drill their graduates on this all the time, and the Arts do not; (or perhaps the applied disciplines do but the pure ones do not.)¹²

“Arts” vs. science (2)

Art vs. science // objective vs. subjective // abstract, concrete // soft, hard // public, private

*Science studies what nature has; inanimate effects.
The “Arts” study what humans have done or created; human agency.
These in turn lead to characteristic modes of thought: unresolved questions, seeking to problematise not problem-solve.*

In art itself, it's often about having a perception but not being able to articulate it. The artists specialise in producing these perceptions in others; the academic disciplines in attempting to articulate them.

And often in deliberately evoking multiple interpretations or perspectives on one thing.

13

Pure vs. applied

“Pure” focusses on a single cause and all its consequences
Applied on (achieving) a single effect and all its causes
(necessary and sufficient conditions)

E.g. of science related spectrum of pure to applied:
Theoretical physics - experimental physics - applied physics -
mechanical engineering - engineers (building machines) -
garage mechanic.

In “Arts” it may look more like a circle:
Painting - history of art, theory of aesthetics - craft - interior décor
Prime minister takes power - theory of politics - advisors to parties

14

Pure vs. applied (2)

So pure vs. applied may play differently in (interact with) the “art” vs. science dimension.

In science: First analysis (of nature); then synthesis (of artifacts)

In “arts”: First synthesis (of art objects, human events);
then analysis (articulate something of what governs these).

15

How would you classify these?

First solo for a few minutes,
then in pairs: how would you classify each of these disciplines
on the 2 dimensions?

- Chemistry
- Medicine
- Literary studies
- Sculpture
- Psychology

16

A map

Science Single answers, original questions	Computer Science Medicine	Chemistry Philosophy
“Art” Original answers	Sculpture	Literature
	Applied single context	Unapplied (Pure) single generalisations

17

Psychology?

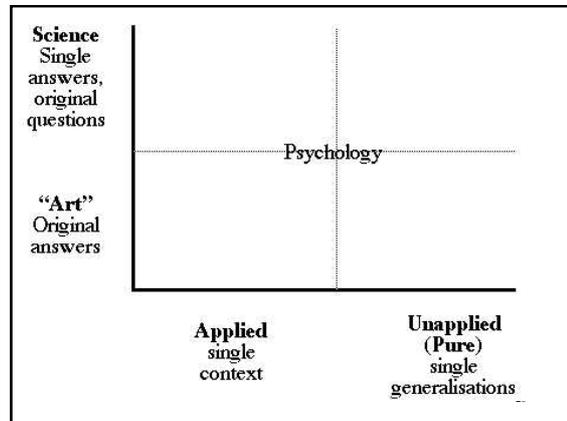
When I attempted to get some data on how to map the disciplines,
the first thing I found was that those in a discipline always see
it as near the centre (of the world);
And that the dimensions were useful to them mostly for
understanding the relationships between different bits of the
discipline.

E.g. for psychology: how physiological Psy, Social psy, visual
perception, abnormal etc. relate to each other.

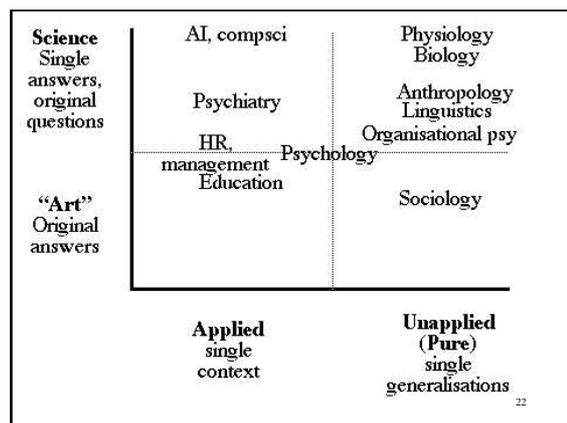
18

Part 4:
Psychology's disciplinary neighbours

19



- Psychology's neighbours**
- Sociology
 - Physiology, neurology
 - Biology, (evolutionary psy)
 - Computer science, artificial intelligence
 - (Education) IQ, testing (psychometrics), learning
 - Psychiatry, medicine
 - Personnel management (HR); management
 - Organisational psy
 - Linguistics, psycholinguistics,
 - Anthropology
- 21



A place to stop

23