

# Session 11. Pluralism III: Chang's active normative epistemic pluralism

Dr. Neil Barton

n.a.barton@ifikk.uio.no

FIL4200: Epistemology and Philosophy of Science

20. March 2023

Last week we look at Cartwright's "patchwork" pluralism.

This (at least under one interpretation) is a version of **strong** pluralism: Truth should be relativised to a particular "patch".

This week we'll examine Hasok Chang's *active normative epistemic pluralism* that tries to remain more ontologically neutral.

Aims for today:

- (1.) Examine Chang's pluralism and his criticisms of monism.
- (2.) Look at some of the usual objections and how it fares with respect to them.

## 1 Chang's pluralism

Let's start with Chang's definition of **Monism**:

**Monism** about scientific knowledge springs from the notion that science is the search for the truth about nature; since there is only one world, there is only one truth about it, and only one science that should seek it. (p. 259)

Thus put, there's a combination of both a **metaphysical** and **normative** component.

Chang proposes an *active normative epistemic pluralism*.

**Normative** because it is advocating how science *should* be practiced rather than merely *describing it*.

**Active** because it proposes that we should *do* some things (e.g. reform policy).

**Epistemic** because it concerns the production of knowledge rather than depending on an underlying metaphysics.

**Question.** Immediate question: What do we mean by knowledge here? (In particular, must Chang actually take a stand on the metaphysics in substantiating the kind of knowledge he wants?)

**Claim.** This pluralism is not relativism.

**Relativism** (as Chang is characterising it here) is the doctrine that any existing points of view should be equally tolerated.

**Point 1.** Relativism is compatible with monism.

(Not anything goes, but many things go.)

**Point 2.** (?) We can talk about the relative virtues that different theories have.

Chang argues that this version of pluralism has several benefits over monism.

## 1.1 Benefits of toleration

**Hedging one's bets.** Even if we accept truth, getting at truth is hard. So perhaps it's better to have a multiplicity of approaches to increase the probability we get the "right" one.

**Division of domain.** It is easier to cover a wider array of phenomena if we tolerate pluralism.

**Satisfaction of different aims.** Science often has different aims (literal truth, explanatory power, empirical adequacy, and convenience of classification), and pluralism allows for their pursuit within different theories.

**Multiple Satisfaction.** Different theories can carve up the world differently. Why shouldn't we have two different true theories using different primitives?

## 1.2 Benefits of interaction

**Integration.** Many systems can work together in achieving a certain aim.

e.g. GPS system. "by means of satellites kept in place by Newtonian physics, and atomic clocks ruled by quantum mechanics and corrected by special and general relativity, this system maps the spherical surface of the round earth on a geocentric grid (or rather, a geostatic grid), and gives advice to people on the ground from a flat-earth point of view"

**Co-option.** Taking results from one area and employing them in one's own system (e.g. Lavoisier using the phlogiston theorist's experimental results).

**Competition.** Theorists working within different systems compete with one another.

Lots more to discuss if people want to; **Pluralist Historiography, Pluralist Philosophical Practice, Complementary Proliferation...**

# 2 Questions

## 2.1 In favour of monism?

**Question.** Isn't **unification** a theoretical virtue?

**Question.** Can't monism (e.g. fanaticism) be beneficial for scientific practice? Chang acknowledges this, but we might question him.

## 2.2 Issues with pluralism

**Question.** How wide-ranging is pluralism (e.g. pluralism in methodology/testing vs. pluralism in theory)?

**Question.** Should we be pluralist about theoretical virtues?

**Question.** Does that let "bad" theories (e.g. creationism) in? Would this be a bad thing?

**Question.** Are we pushed to the meta-level? (Pluralism about pluralism and monism?)

**Question.** Are there costs to pluralism? e.g. paralysis?

## 2.3 Politics and pluralism

**Question.** Chang motivates his pluralism via analogy with the political. How analogous are science and the political really?

**Question.** Are there fields where monism seems to work (e.g. where standardisation is important)?

**Question.** How might pluralism in science affect public perception of science?