

The Epistemology of Medicine as an Epistemology (and Ontology) of Practice

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Introduction

- Medicine is usually understood as an applied science (in contrast to basic research in, e.g., physics, biology, or history).
- The results of applied research are typically technical norms (cf. G.H. von Wright; I. Niiniluoto):
 - If you want to achieve X, you must/should do Y.
 - E.g.: If you want to cure infection X, you must/should use antibiotics Y.
 - Applied research is thus relative to human goals and interests; the results of applied research concern facts about the relations between means and ends.

Pragmatism

- From the perspective of pragmatism, the dichotomy between basic and applied research cannot be sharp: all research, in any academic field, is based on human interests and embedded in human practices.
- The epistemology of medicine is an epistemology of practice – but so is any epistemology!
- Human cognition generally is a practice-laden process based on historically developing practices of inquiry.

Habits

- Habit is one of the key concepts of pragmatism, frequently employed by the pragmatist classics Charles S. Peirce, William James, and John Dewey, among others.
- Human action is not primarily viewed in terms of individual actions but in terms of habits:
 - generality vs. particularity
 - continuity vs. discontinuity

The doubt-belief theory of inquiry

- Peirce, "The Fixation of Belief" (1877): the scientific method.
- belief – habit – action – surprise – doubt – inquiry – belief – ...
- Beliefs do not just give rise to various habits but are habits of action: to believe something about the world is to be engaged in (potential) actions in the world.
 - This concerns medical scientists' beliefs as much as everyday beliefs.
- Fallibilism: human inquiries are always fallible; any belief may need correction. (Any medical diagnosis, however well secured, could be mistaken.)

The metaphysics of habits

- Peirce's extreme scholastic realism: "real generals" (habits, laws, dispositions, possibilities) are to be distinguished from existing particulars.
- The pragmatic method itself (employed in slightly different ways by Peirce, James, and other pragmatists) is connected with this realism about generality: when examining the pragmatic meaning of our concept(ions), theories, or ideas, we ought to take into account their conceivable practical effects (not just actualized effects).

Habits and inquiry

- Accordingly, habit is a key notion in the pragmatic method of inquiry developed and employed by Peirce, James, Dewey, and their contemporary followers.
- The method might be applied very differently (e.g., Peirce vs. James) but it is in any case tied to the concept of habituality.
- Cf. James's (notorious) theory of truth: true beliefs tend to produce good effects (habituality again).
- Medicine: certain therapeutic interventions tend to produce certain effects.
 - Inquiry embedded in the practices of helping sick people.
 - Ethical context of inquiry (not only in medicine but in any field of inquiry)!

Fallibilism (again)

- The meta-level habit of critically reflecting on and, if necessary, revising and transforming one's habits (and hence one's beliefs, including one's beliefs about the correct ways of fixing beliefs) is one of the most important habits we can have.
- The advancement of this critical meta-habit is close to the advancement of the scientific attitude itself – critical pragmatic fallibilism.
- This is applicable to medicine as much as to all other fields of inquiry: any inquiry is a fallibilistic process of self-critically transforming our habits of action.

The ontology of illness

- What are illnesses to be cured through processes of inquiry and therapy?
 - Individual entities? Properties carried by the patient? Processes? States?
 - Different illnesses might belong to different ontological categories?
 - Peirce and "real generals" again: the ontology of illness must take seriously the reality of generals. The "same" illness (understood as a "general", not as a particular) may be instantiated in the same patient more than once, or in different patients at the same time, etc.
 - But generals do not "exist" – they are "real".

Continuity

- Peirce's realism about generality is closely connected with his doctrine of continuity, "synechism": everything is continuous with everything else.
- Presumably, also health and illness, as "real generals", are continuous: there is no sharp line dividing the two. (No fundamental discontinuity anywhere!)
 - This could be argued to hold both generally and in the case of health and illness instantiated in an individual patient (who as an individual is not discontinuous from other individuals, either – ethical dimension again!).

Conclusion

- Pragmatism is not the only philosophical tradition relevant to the philosophy of medicine, but may crucially contribute to a proper understanding of the epistemology of medicine as an epistemology of practice.
 - Any inquiry is a practice according to pragmatism.
 - There is no practice-independent epistemology or cognition at all.
 - No sharp, essentialistic dichotomy (discontinuity) between basic and applied research, as in more traditional philosophy of medicine.
- This epistemological approach may also be relevant to the ontology of illness (and health), in terms of Peircean realism about "generals".
 - The notion of realism, however, requires further reflection...

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