

# **Situated Understanding and the Epistemic Value of Diversity**

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# Overview

- In this presentation, I will assert the following thesis:
- Explanatory understanding (as a cognitive achievement) can be usefully articulated on the framework of situated cognition, but may be better thought of as situated understanding.
- Furthermore, taking into account the situatedness of understanding adds to the case for viewing diversity as an epistemic virtue.
  
- 3 sections:
  - **(1) What is Understanding?**
  - **(2) Situating Understanding**
  - **(3) The Epistemic Value of Diversity**

# (1) What is Understanding?

- What is understanding?
- Objectual and Explanatory
- Objectual accounts of understanding see understanding as an object, generally a kind of knowledge
- Knowledge is propositional, and understanding is
  - Knowledge plus explanation
- Explanatory accounts see understanding as a kind of cognitive achievement
  - grasp of dependency relations, application abilities, or even coherence with other background knowledge

# Objectual and Explanatory Accounts in Practice

- **Objectual** accounts are epistemically and conceptually useful – they give us a practical way of analyzing what we *mean* when we say *something* is understood
- **Explanatory** accounts, on the other hand, treat understanding as a cognitive phenomena
- Understanding is a practice or skill that applies to the use of knowledge, not an object
- In other words, understanding can be thought of here as having the ability to use knowledge adeptly in the appropriate conditions, apply or combining knowledge correctly to make inferences, or explain how pieces of knowledge fit together

## (2) Situated Understanding

- **Situated cognition:**
- “Situated cognition approaches have in common a rejection of the ideas that cognition is individualistic (accomplished by each human individually), general (true of all individual humans and applicable in all situations), abstract, symbolic, explicit, language based and located in the brain as mediator between sensory input and action output.” (Solomon 2007)

- “[S]ituated cognition views human knowledge not as final objective facts but as
- (1) arising conceptually (e.g., dynamically constructed, remembered, reinterpreted) and articulated within a social context (i.e., a context conceived with respect to social roles and norms);
- (2) varying within a population in specialized niches (areas of expertise);
- (3) socially reproduced (e.g., learning in communities of practice; Lave & Wenger, 1991); and
- (4) transformed by individuals and groups in processes of assimilation that are **inevitably adapted** and **interpreted from unique perspectives (improvised in action, not simply transferred and applied).**” (Clancey 2009, p. 17)

# Situated Knowledge

- “From an investigative standpoint, the one essential theoretical move is contextualization (perhaps stated as "antilocalization," in terms of what must be rooted out): **we cannot locate** meaning in the text, life in the cell, the person in the body, **knowledge in the brain**, a memory in a neuron. Rather, these are all **active, dynamic processes**, existing only in interactive behaviors of cultural, social, biological, and physical environment systems. Meaning, life, people, knowledge, and so on, are not arbitrary, wholly subjective, culturally relative, or totally improvised. Rather, behaviors, conceptions, and emotional experiences **are constrained by historically developed structural relations among parts and subprocesses in different kinds of memories - neural, artifactual, representational, and organizational - and are dynamically constrained in action across system levels.**” (Clancey 2009, p. 28)

# Situated Understanding

- “Situated knowledge” (in this sense) takes into account the contexts and constraints involved in the production of knowledge itself – not in a theoretical sense, but in the sense of their influence on/scaffolding of the cognitive processes involved in providing knowledge.
- I propose, then, that this same framework can be used to articulate the unique “cognitive achievement” of understanding.
- Working definition of situated understanding: having the capacity not just to provide knowledge in the right contexts, but to synthesize new knowledge, explanations, or connections related to a particular item of knowledge in (cognitively) novel ways



## (2.1) Situatedness (in Feminist Epistemology)

- Feminist Standpoint Theory
  - Certain types of knowledge are more or less available to different groups based on the epistemic access afforded to those groups through social position.
- “Group identity makes an epistemically relevant difference ... simply because groups will sometimes operate with different **starting belief sets** based on their social location and their group-related experiences, and these starting belief sets will **inform their epistemic operations** such as judging coherence and plausibility.” (Alcoff 2012, p. 45)
- This is close... but not quite. By using the situated cognition framework and situated understanding, we get a more accurate way of discussing the actual cognitive processes involved.

# “Situating” Situated Understanding

- On the view that cognitive processes are not just in the brain, but involve brain, body, and environment:
- Gender norms influence our cognitive processes through:
  - biological/physiological effects (Anne Fausto-Sterling)
  - perceptive/interactive effects (Iris Marion Young)
- In other words, when thinking about how we are cognitively situated, we ought to take into account the effects of gender norms (and norms of gender/sex relationships) on bodily comportment and interactions with the environment
- We can also consider the effects of gender norms on affordance solicitation (environmental and social) and valuation/salience

# (3) The Epistemic Value of Diversity (in Scientific Knowledge Production)

- As Evelyn Fox Keller says, “Other factors above and beyond empirical evidence and theoretical necessity enter into the community’s choice of best theory.” (1984 p.5)
- Kuhn’s view provided the means for critical analysis of what Keller calls “the extrascientific factors affecting choice of scientific theories.” (1984 p.5)
- The choice of “best theory” relies on the values (social, political, economic, moral, etc.) of those deciding, as do the individual theories and beliefs that make up the paradigm
- These involve not just the factors above, but also presuppositions about gender, race, class, ability status, and many other things that are given to us in our cultural narrative.

# Knowledge Production in the Sciences

- ◆ Antony (2015) believes that that scientific paradigms neutralize knowledge production (in individual knowers).
- ◆ On Louise Antony's view, situatedness should be understood as experiencing marginalization or oppression for one or multiple aspects of one's identity. This is what gives marginalized persons privileged perspective on some phenomena. That aside, we have **universal inferential mechanisms** that get us to the facts.
- ◆ Thus, if we ever have gender or race equality, this will remove any epistemic need for diversity.

◆ The issue:

“Epistemic travel, in reducing idiosyncrasy, might then help with the problem of underdetermination: as **accidents of epistemic location** are filtered out, so too, one hopes, are spurious patterns eliminated—indeed, to the extent that *perspective* is eliminated.” (Anthony 2016, pp 165)

◆ Diversity (for Antony) is important in knowledge production:

- ◆ so that non-dominant groups can assist in pointing out bad (prejudicial) biases built into knowledge claims.
- ◆ so that the values and interests of non-dominant groups are more likely to be considered in knowledge production processes.

◆ But - Do we want perspective to be eliminated?

◆ In other words, diversity is *morally* and *politically* important – but is diversity *epistemically* important?

# Argument:

- ◆ If it is the case that there are a plurality of ways of performing epistemic tasks (as I argue), then we should take seriously the idea that social norms can contribute to the way that we *understand* in the explanatory sense. That is, it is not *just* marginalization that contributes to better knowledge production processes.
- ◆ We need to factor in:
  - ◆ Differences in experience
  - ◆ This contribution to our patterns of knowledge production (situated knowledge)
  - ◆ The relationship between these patterns and their influence on situated understanding (synthesis, application, inference, etc)

# One objection:

- Antony has criticized another argument for epistemic diversity (Helen Longino's) by arguing that if diversity is *epistemically* valuable, then both demographic and doctrinal diversity should be valued
- Response:
- There are plenty of reasons to accept that doctrinal diversity also contributes to better knowledge production given that participants are not dogmatic (ie they engage fruitfully with different paradigms of explanation without dogmatically adhering to a priori assumptions and are willing to revise their views given appropriate evidence)

# Conclusion

- Explanatory understanding (as a cognitive achievement) can be usefully articulated on the framework of situated cognition, but may be better thought of as situated understanding.
  - Furthermore, taking into account the situatedness of understanding adds to the case for viewing diversity as an epistemic virtue.
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- Thanks!