The Ethical Turn in Epistemic Cognition

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Abstract: An engaged, informed citizenry is important for tackling many of the words most pressing sustainability issues. Epistemic cognition research may play a key role in understanding and developing such capacities. Recent shifts in epistemic cognition that draw on social epistemology are to be welcomed, however, there is further potential here in drawing on a recent ethical turn in epistemology to make explicit the ethical assumptions underpinning the area of epistemic cognition. That is, that epistemic cognition has ethical dimensions, including that we (1) care about consequential issues, epistemic issues that have stakes, (2) have epistemic obligations, and (3) should attend to concerns of epistemic injustice. I argue for scoping epistemic cognition to recognize these ethical turns, reflecting that the significance of bringing these concerns – already present in much work – into focus for further inquiry.

Introduction

Understanding how people navigate their own, and others' knowledge is one of the most pressing issues of our time in order to develop a sustainable society, and foster a citizenry that can engage across socio-scientific issues including political discourse on climate (Bråten, Britt, Strømsø, & Rouet, 2011). This paper draws on literature from epistemology, to mirror a turn in that field that has seen both renewed emphasis on the practical and social concerns of epistemology, and its relation to ethical issues. I draw on contemporary accounts in the philosophical epistemology literature, that enrich our understanding of how learners might think about the nature of knowledge and knowing, including analyses of 'epistemic stakes' in experimental epistemology (Beebe, 2014), epistemic injustice (Fricker, 2009; Kidd, Medina, & Pohlhaus, 2017), and social and virtue epistemology (see, e.g. Goldman, 2010; Greco & Turri, 2013; and approaches drawing on these, Chinn, Buckland, & Samarapungavan, 2011; Knight & Littleton, 2017). I argue that there are at least three ways (1) in which the conceptualization of epistemic cognition research should follow contemporary epistemology in taking an 'ethical turn', briefly:

1. **Epistemic stakes:** Our objects of analysis (topics, varieties and strengths of evidence) are grounded in the consequential; that is, we care about things that matter such as climate change, and we care less about things that matter less, such as epistemic features in how people select their lunchtime sandwich.
2. **Epistemic obligations:** That the practices and beliefs surrounding coming to know involve particular kinds of ethical obligations, with respect to ensuring we reason well (or responsibly), investigate (and take a curious stance), and pay heed to the ideas of others and their justifications for those ideas.
3. **Epistemic injustice:** And in particular, that a key ethical concern is that in coming to know through testimony, we should understand practices and beliefs regarding epistemic injustices – i.e., the downplaying of knowledge and justification arising from particular marginalized sources.

Note that I certainly do not wish to make the *strong* claim that epistemic cognition research has paid no regard to these issues. Indeed, my claim is that elements of these concerns have been strongly threaded through much epistemic cognition research, and indeed these three broadly align with, and add descriptive texture to, the AIR model's Aims, Reliable Processes, and Ideals (respectively) (Chinn, Rinehart, & Buckland, 2014), and Kelly's (2016) discussions of interaction analysis in epistemic cognition. However, their inclusion has generally been implicit, and thus conceptual models and empirical work on this ethical turn in epistemic cognition is lacking (for an exception, see Zimmerman and Chinn, 2020). Thus, these proposals are intended to 'make explicit' and elaborate existing models. Importantly, my claim is that contemporary epistemology can inform our understanding of learner's beliefs about the nature of knowledge and knowing, and that this ethical dimension in beliefs cannot be separated from the epistemic. That is, that learner's beliefs regarding the stakes, obligations, and injustices of epistemic matters are a legitimate object of inquiry, tied up with our wider epistemic practices.

Three ethical turns in epistemic cognition

Ethical turn 1: Epistemic stakes

Epistemic cognitions are intertwined with beliefs regarding the stakes of a problem. Problems have epistemic stakes insofar as what we believe (and our beliefs – for example – about how we justify those beliefs) have

consequences in real-world decision making. The stakes or consequences of our epistemic contexts are significant in epistemology at large; epistemic contexts in which being right matters less, might reasonably result in a lower quality evidence or reasoning being acceptable (Beebe, 2014). This principle applies to epistemic cognition research, and learning at large. A significant component in understanding epistemic stakes is ethical; we care about epistemic contexts that are consequential. Indeed, this principle is enacted in the selection of topics on which epistemic cognition research has been conducted, most commonly socio-scientific topics around environmental and health related concerns in which we wish for people to reason sustainably (personally and environmentally). This consideration is clearly central to epistemic cognition work – we ask students to engage with epistemic issues around sustainability, not around sandwich choices, although both have epistemic features – yet it is not an explicit feature of that research. Foregrounding this ethical concern in the epistemic stakes of epistemic cognition research leads us to greater consideration of the kinds of topics that matter (those with stakes), including that many topics of concern – the environment, personal health decisions – disproportionately impact marginalized communities.

Greater attention to epistemic stakes in epistemic cognition research motivates two shifts. First, it suggests that a component of attending to disciplinary norms and situated practices in understanding epistemic cognition, is the understanding of stakes, and commensurate consequences for evidentiary standards and other epistemic concerns; we demand greater epistemic certainty in some stakes than others, and understanding learner's perspectives on the consequential nature of epistemic matters is an important part of understanding their epistemic cognition. Second, it suggests that epistemic stakes are an important variable in the design of research studies and practical classroom interventions, both with regards to topics and the nature of the problem. Again, manipulation of stakes *is* a concern in existing work. For example, much work focuses on issues of sustainability (although of course there are many other social justice issues that might be relevant too), and at the problem level for example in asking students to imagine a friend has asked them, we introduce a manipulation of the epistemic stakes. However, a deliberate approach – and engagement by learners – to such manipulation would deepen our understanding, and focus work on areas of significant concern.

Ethical turn 2: Epistemic obligations

So, then, if we care about epistemic cognition because of the stakes, then this suggests that in some circumstances expectations vary based on context. This assumption suggests a kind of epistemic obligation, that under some conditions we are obliged to investigate more than in others. This suggestion strongly echoes that of Clifford's article 'The Ethics of Belief' in which he notes that our beliefs are consequential, and that having poor epistemic standards in one context might both lead us to have poor standards elsewhere, and to pollute the wider discourse with our faulty beliefs (Clifford, 1886). Recent shifts in epistemic cognition to attend to virtue epistemology reflect this stance, mirroring the ethical turn seen in virtue epistemology that is grounded in theory better known for (virtue) ethics (see particularly, Chinn et al., 2011) in understanding reliable knowledge forming mechanisms. In a recent analysis of this position in the context of public discourse and research in science denialism Torcello (2016) notes that Clifford's claims play out in the sense that poor beliefs in one domain can both 'infect' other beliefs, and impact wider discourse. Torcello thus proposes that there is an ethical imperative in developing scientific capacity and curiosity, that guards against denialism. This might have particular characteristics in practice, including a respect for other's views and their reasons, and an obligation to justification as an active (curious) imperative, targeted at active citizenry. In particular, respect for a plurality of voices and positions and engagement with their justifications are central obligations (Knight & Littleton, 2017), as is the translation of belief to behavior, although this is understudied in epistemic cognition work (Chinn & Rinehart, 2016). This has implications insofar as it suggests both particular foci on epistemic practices, and insofar as it implicates beliefs regarding epistemic obligations – and their ethical scope – in epistemic cognition research.

Ethical turn 3: Epistemic injustice

Finally, a particular feature of our epistemic obligations is the due regard to epistemic and testimonial injustice and ignorance that philosophical epistemology literature has increasingly attended to (notably, Fricker, 2009; Kidd et al., 2017). This work recognizes (1) that testimony is a source of knowing, (2) that injustices occur in which one is less inclined to believe an informant (possibly oneself) because of ones' status, and (3) by extension that this leads to such testimony being ignored, and the potential for ignorance regarding particular groups.

Epistemic cognition research of course is grounded in understanding how people think about the source and justification for knowing, although the role of testimony in this has been less well explored. There are clear ethical implications in understanding epistemic injustice. First, with respect to understanding how people treat testimony (that might be identical in content and warrant) from differing groups, particularly marginalized groups. Second, in understanding that an important focus for research is that very marginalization and ignorance; that is – related to the first concern – that how we treat sources (as well as topics) has stakes, and that understanding how

people think about knowledge and knowing should include analysis of how people navigate longstanding injustices, ignorance of issues impacting particular groups, and their epistemic components.

Making it explicit: Implications for the field

Above I have outlined three ethical turns in epistemic cognition research. These three dimensions are well aligned with existing research agendas in epistemic cognition, and indeed we see these ethical concerns across that existing work already. The benefit of 'making explicit' is that in doing so we bring into focus the important intersections between epistemic and ethical thinking in everyday life, established epistemic cognition research, and the practices of teaching and learning. Three key implications for a research agenda arise. First, simply, that each of the three dimensions is deserving of conceptual and empirical attention; we should understand more about these ethical turns in epistemic cognition. Second, that our established research is a rich source for drawing out ethical implications, both in the study paradigms developed, and in re-analysis of designs for their ethical dimensions (as briefly suggested above). And thirdly, that existing practice particularly in classrooms is likely to be a rich source of insights; educators must navigate myriad concerns in their teaching, and many will be keenly aware of the intersections described above, providing sites for research-practice integration.

Epistemic cognition research has significant potential to contribute to developing an informed engaged citizenry for a sustainable world. To make that explicit, we must make explicit the ethical turn that goes beyond perceived abstract ideas of epistemology. The dimensions above provide three themes to draw on in that regard. These may be read in a weak or strong version. The weak ethical turn above is simply that we should attend to these issues, that they are part of epistemic reasoning and practice and thus objects of study. The stronger ethical turn, then, is that beyond being objects of study they are imperatives for the work, that in taking such a turn the emancipatory potential of the work is realized. That is, for example, climate change is not simply an issue of study because it is consequential in terms of epistemic stakes (weak ethical turn), but also because there are myriad ways that research can impact on this consequential issue, including by incorporating ethical dimensions into discussion such as the disproportionate impacts on the Global South, by engaging with a plurality of voices – particularly those typically marginalized – and tackling areas of silence or ignorance in our knowledge on issues as an important epistemological and ethical challenge.

Disagreement: Epistemic and ethical dilemmas

A particular context to which we might turn is disagreement. Across a wide body of epistemic cognition research, multiple source comprehension (e.g. Ferguson, 2014) and argumentation (e.g. Sandoval & Millwood, 2007) are central. In these contexts, students are generally faced with sources that disagree with each other on some topic, and asked to either summarize or evaluate that disagreement to come to a conclusion. Such disagreements are commonplace in everyday life, and navigating them is central to active engagement in society. A significant body of work in epistemic cognition has focused on a subset of disagreements around what might be characterized as "expert vs non-expert" disagreement including cases in which multiple expert sources agree while non-expert sources differ, and concerns of uncertainty in the nature of science as the grounding for disagreement, or for example narrower explanations for disagreement such as vested interests (e.g. Thomm, Hentschke, & Bromme, 2014). This work is certainly important – learners clearly do struggle to navigate expertise – however, disagreement may be characterized in a much broader way. This broader characterization incorporates expert-expert disagreements (what philosophers would call 'epistemic peer' disagreement) of various kinds in which disagreement might center on issues such as the characteristics of the expertise, the problem itself, of the proposed action (for example, resource allocation policy). Indeed, disagreement is undertheorized even in the philosophical literature; as Frances and Matheson note in the Stanford Encyclopedia of Philosophy "Compared to many other topics treated in this encyclopedia, the epistemology of disagreement is a mere infant." (2019). Of relevance to an ethical turn in epistemic cognition, is that: (1) our existing tools for research in epistemic cognition provide resource for exploration of ethical concerns, through their incorporation in multiple source and argument based designs that take on this wider scope; ethics teaching frequently makes use of dilemmas as focal points, and these tasks provide an equivalent task structure, and (2) that in adopting this approach the clear intertwining of the two features is clear, in bringing to the fore both the ways that ethical and epistemic issues come together in questions around issues such as whom to believe, and what action to take on that basis (2).

An ethical turn in epistemic cognition research recognizes the social functional role of knowledge in society, and its fundamental entwining with ethical concerns. Epistemic cognition research has incorporated many ethical concerns in the established body of work, through the objects of analysis, focus on reliable methods for engaged citizenry, and a broad care for learning. By making the ethical turn more explicit, a more granular analysis of these concerns and their teaching can be developed (a weak ethical turn). A strong ethical turn moreover

recognizes the significance of this shift for pressing societal issues. Bringing these concerns into focus highlights the potential of research in the area for impact.

Endnotes

(1) There is also a more content oriented fourth way related to the ways that we come to develop our moral reasoning and judgment. Facets of this development must relate to epistemic features, in the sense that we – for example – trust particular sources or authorities, from the Bible to the textbook, or recognize simplicity or complexity of moral judgment, etc.

(2) Lyons (1990) provides an intriguing preliminary discussion of epistemic-ethical dilemmas perceived by educators.

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