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Social Epistemology

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Epistemology is the study of knowledge and related phenomena, such as attitudes (e.g., belief, understanding, trust), attributes of these attitudes (e.g., justification, warrant, reliability), and traits (e.g., intellectual humility, open-mindedness, intellectual courage, and their opposed vices such as intellectual arrogance and intellectual servility). *Social epistemology* is thus the study of knowledge and related phenomena as they play out in social interactions. These interactions occur at timescales that range from direct, face-to-face chatting, to asynchronous joint inquiry over the course of months, years of formal schooling, and the transmission of cumulative cultural knowledge across generations. They also occur on social scales ranging from dyads to triads to groups whose members we can track (approximately 150) to large, anonymous institutions and societies. As groups increase in size, their members may specialize into roles, and the geometry of the network by which these members are interconnected becomes highly consequential.

History

The history of philosophy is rife with topics in social epistemology. In the *Meno*, Plato offers a thought experiment about a man who acts as a travel guide (Cooper, 1997). The travelers must rely on him, so the question arises whether it makes sense to follow the guide only if he knows the way or whether it is sufficient that he merely has a true belief (which does not qualify as knowledge) in order to be a reliable guide (*Meno* sections 97a–98c).

In the Islamic tradition, reports of the sayings and doings of the prophet—known as *hadith*—were transmitted through a multigenerational network of professional memorizers over nearly a millennium. For a *hadith* to be accepted as authentic, each link in a chain of testimony tracing all the way back to Mohammed had to be verified as an honest and reliable memorizer (Şentürk, 2005).

The boogeyman of social epistemology has been Descartes, especially the hyper-individualistic methodology he adopts in the *Meditations* (Descartes, 1637). In this work, Descartes presents himself as retreating to his private residence in order to rebuild the foundations of all knowledge from scratch. In reality, though, Descartes was a social butterfly and consulted many others for feedback on *Meditations*.

Enlightenment epistemology is known to be very individualistic. In 1660, the British Royal Society adopted the motto *nullius in verba*, a line from Horace that translates as "take no one's word for it." But there were some notable philosophers who endorsed more social views of knowledge, such as David Hume (Buckle, 2007) and Thomas Reid (2011). Hume argued for the trustworthiness of scholarship through expert scrutiny and Reid for the principle of credulity, or the right to trust the word of others.

Whether, how much, under what conditions, and in what manner we ought to take people's word for it is arguably the fundamental question of social epistemology. In the 20th century, one important development in this respect was the introduction of political considerations by feminist, Marxist, and anti-racist

epistemologists. Feminist perspectives rose in prominence after the publication of Harding and Hintikka (1983). The chapter by Nancy Hartsock (1983) in that volume introduced the notion of standpoint epistemology, according to which socially marginalized people who engage in political activism are especially likely to acquire knowledge of the conditions of their marginalization, making their testimony valuable in that context. Medina (2012) advances a similar argument about the epistemic advantages enjoyed by people marginalized on racial grounds.

Around the same time, but largely in parallel rather than in dialogue, a less-political perspective on social epistemology was being developed by Anthony Coady (1973, 1992), Alvin Goldman (1999), Steve Fuller (1988), Philip Kitcher (1990), and Edward Craig (1991), among others. In these works, testimony and whether to trust it are considered sometimes in the context of conversations among laypeople but often also in more specialized contexts, such as news reporting, courtrooms, and academic publications. Most social epistemologists agree that context matters in important ways because it shapes the concerns, patterns of attention, and incentives of the interlocutors. Someone who might be trustworthy on the witness stand under the threat of being charged with perjury may not be trustworthy in a personal interaction, even if they are answering the same question. A claim that has been vetted by multiple peer reviewers is likely to be more trustworthy than the same claim published anonymously on an online forum.

Core concepts

Concepts from individual epistemology

Many of the core concepts of social epistemology are borrowed from traditional individualist epistemology [see Conceptual Analysis]. These include normative concepts related to *epistemic status*, that is, the epistemic normative properties of people and their cognitive states. One essential epistemic status is *knowledge*. Most researchers focus on *propositional knowledge*, e.g., knowing that the proposition "tigers have stripes" is true. There are also literatures on *know-how*, which is often construed in terms of skill or ability or knowledge of the way to accomplish a goal, and *objectual knowledge* or acquaintanceship, such as knowing a person or city. As Plato already recognized in the *Meno*, knowledge is deeply connected to *belief* (Cooper, 1997). One good-making feature of beliefs is *accuracy*, or having true content. Epistemologists almost all agree that mere true belief does not qualify as knowledge, however. If I base my belief on whether it is raining here now on a coin toss that happens to turn out correct, that belief does not seem to qualify as knowledge. There is much debate about what third (or fourth) feature needs to be added to get from mere true belief to knowledge. Candidates include *justification* (i.e., being able to give a reason for why I believe), *warrant* (i.e., being well-positioned to know, even if I cannot explicitly give my reasons, perhaps because I have extensive training and can recognize patterns that I cannot quite explain), and *accuracy that manifests epistemic virtue* (i.e., expressing reliable dispositions such as good memory), among others (Sosa, 2007).

Other core epistemic attitudes include *understanding*, *wisdom*, and *ignorance* (Peels, 2023). Whereas knowledge is associated with the speech act of testifying or asserting (e.g., telling someone "the meeting is scheduled for 3 p.m."), understanding is associated with the speech act of explaining (e.g., "we scheduled the meeting for 3 p.m. to accommodate everyone's availability"). You can know that your dishwasher is broken without understanding it well enough to fix it. You can know that a friend has cut you off without understanding why they have done so. Thus, understanding is typically conceptualized as a kind of "knowledge+," with theorists debating what needs to be added to knowledge in order to transform it into understanding. Two prominent and related accounts hold that understanding is *knowledge of causes* or *knowledge of difference makers* (Sartorio, 2005). When you understand something, you are in a position to say what else would need to change in order for it to be different.

Finally, traits form an important class of epistemic statuses. These are traditionally conceived of as *virtues, vices, expertise*, and *skills*. Some theorists collapse virtues, expertise, and skills into a single category, arguing for the virtue-as-skill hypothesis. Others hold that virtues have skills as components but also require a motivational component. In any event, virtues (and expertise and skills) are conceptualized as acquired traits of character that facilitate the acquisition, maintenance, and transmission of knowledge and other epistemic goods (Zagzebski, 1996), whereas vices are conceptualized as dispositions that obstruct the acquisition, maintenance, and transmission of knowledge and other epistemic goods, or even promote ignorance and error (Cassam, 2016).

Concepts distinctive of social epistemology

Social epistemology is concerned with the epistemic functioning of groups and individuals in a social context. The core concepts in epistemology gain a new meaning in the social context. Consider how social epistemologists understand epistemic states such as propositional knowledge or know-how and traits such as epistemic virtues and vices.

Just like individuals, groups are often said to possess knowledge, know-how, or understanding. And saying this can mean different things. **Mutual knowledge** is when all members of a group possess the same knowledge individually. For example, I and everyone else in my household might know that the trashcan is full if each member of the household has looked at the trashcan in the last hour. When the matter is discussed during dinner, it becomes **common knowledge** (Lewis, 1969), meaning that all members of the group know that

1. the trashcan is full,
2. all other members also know item 1, and
3. all other members know item 2.

Mutual and common knowledge are basic concepts in game theory and epistemic logic (Fagin et al., 1996) and describe the kind of collective knowledge that is fundamentally individualistic, possessed by each group member. Sometimes, though, we speak of groups possessing knowledge in a different way. For example, we might say that geologists know how the Himalayas were formed, but they do not know how the moon was formed. Here, we seem to attribute knowledge to the group "geologists" as a whole. In such cases, we might speak of the group knowing something or possessing collective knowledge. There are two influential models of collective knowledge.

The first is the *joint commitment model*, where collective knowledge consists of a commitment made by members of a group in their role as group members (Gilbert, 1989; Tuomela, 2004; Pettit, 2023). We might say that scientists, in virtue of professional identity, commit to endorsing facts which are agreed upon by scientific consensus. For this model, there are different views about whether collective knowledge is always *summative* (a sum of individual members' epistemic states) or whether it can be *anti-summative* (something more than or outside of, the epistemic states of individual members) (Gilbert, 1989; Tuomela, 2004; Lackey, 2020).

The second is the *distributed cognition model* where the cognition and its end products are seen as located in a system consisting of multiple agents (Clark, 1997). A paradigm case where this model seems applicable would be a tech company producing machines that are so complicated that no single individual understands exactly how every part works, yet the company knows how they work and is able to produce them. A debate within this approach is whether distributed cognition requires or implies that the distributed cognizer possesses knowledge (Giere, 2017).

Social epistemologists are also interested in what kinds of traits are conducive to knowledge or understanding in a social context. *Other-regarding epistemic virtues* are traits that are conducive to knowledge for others in the community or surroundings of the agent who possesses the virtue. One example of such a trait is honesty, because an honest person is likely to produce more knowledge in those around them (Kawall, 2002). Such virtues can be categorized into four types (Alfano, 2021). The first is source virtues: traits that make someone a good source of information for others. Honesty, epistemic generosity, and integrity fall into this category. The second is receiver virtues: virtues that make one a good receiver of information. This category includes the virtue of inquisitiveness, which involves the ability to ask good questions of the right people (Watson, 2015). The third is conduit virtues: virtues that make someone good at relaying information. The fourth is echoic virtues: the tendencies that allow a person to reiterate information they receive back to the source of information, as good teachers, therapists, and coaches often do (Alfano, 2021).

Other-regarding epistemic virtues tend to align with moral virtues. Virtues such as honesty and integrity are morally good in part because they enhance the epistemic status of others. However, misalignments between moral virtues and epistemic virtues have also been noted. For instance, curiosity is considered an epistemic virtue, but curiosity can drive one to sit outside the window of one's ex-partner all night to see what they are up to (Miščević, 2020; Ross, 2020), which would be inappropriate or immoral. Some epistemologists have

responded to the misalignment of epistemic and moral goals by adopting the position that epistemic goods are only valuable insofar as they contribute to moral goodness (Zagzebski, 2017).

Social epistemologists also study the opposite of epistemic virtues, namely other-regarding epistemic vices. Epistemic arrogance is the tendency to assign too much credence to one's own viewpoints and opinions due to ego-defensive mechanisms (Tanesini, 2021). Epistemic insouciance is a lack of care toward inquiry, which causes one not to inquire and to discourage inquiry by others (Cassam, 2016). Such traits, when they are motivated by a desire to obstruct the knowledge of others, come close to epistemic malevolence. An example of this comes from the abolitionist Frederick Douglass's autobiography, where his enslaver tries to prevent him from being taught to read (Baehr, 2010).

Recent work has also identified collective epistemic virtues and vices. These are character traits possessed by collectives such as groups, communities, and institutions (Astola, 2021; Fricker, 2010). People regularly attribute traits to collectives, e.g., "this company is incompetent." Such collective vices have been studied conceptually and empirically (Meyer et al., 2021). For example, an engineering company, which, due to a hyperfocus on revenue, fails to consider viewpoints that conflict with revenue-generating decisions, could be said to suffer from collective epistemic arrogance.

Questions, controversies, and new developments

From individuals to dyads

Some cases of inquiry, such as checking the weather by looking out the window, are individual. However, many of our daily inquiries are in some way interpersonal and require various dyadic (two-person) interactions. One particular type of epistemic interaction has attracted a lot of attention: testimony.

When people give testimony (and not just in legal depositions), they communicate information to others and ask others to take their word for it (Fricker, 1987). It involves an epistemic interaction that requires trust. Views differ on whether testimony is a basic source of knowledge, like perception or logical reasoning, or whether it is a composite type of knowledge, combining perception and inference. In cases of cumulative culture passed down through generations, testimony is conceived as a basic source of knowledge (Levy and Alfano, 2020) .

Another context in which dyadic social interactions set the stage for theorizing is disagreement, especially peer disagreement. Suppose that you and someone else are trying to figure out how to split a bill at a restaurant. Both of you are educated and numerate, have access to the itemized receipt, and care about getting it right. Yet you come to a different split. Are you under any rational obligation to revise your belief in light of this disagreement? According to conciliationists, the fact that the person who disagrees with you is your epistemic peer means that you ought to change your view, suspend judgment, or reopen the inquiry. According to anti-coniliationists, you are not always under such an epistemic obligation (Kelly, 2010). Anti-conciliationists point out that in contexts where the disagreement is about something with much higher stakes (e.g., did the

Holocaust happen?) or relates to identity-constituting commitments (e.g., does God exist?), the conciliationist approach may be too flexible, even amounting to a lack of integrity. Conciliationists, by contrast, point to norms of rationality that indict those who fail to update their credence in light of disconfirmatory evidence. Others criticize the whole debate by pointing out that the conditions for epistemic peerhood are so stringent that they are rarely met and that the mere fact that someone disagrees with you might itself be evidence that they are not your epistemic peer (Mulligan, 2015).

There is also a small literature on "bad company" arguments, which rely on non-peerhood. The idea is that if you find yourself drawing the same conclusions as someone whom you regard as (severely) epistemically or morally incompetent, you may have reason to doubt yourself (Blanchard, 2023; Levy, 2023; Piovarchy, 2023). Of course, it is possible to come to the same conclusion with both good and bad arguments, so the bad company concern is not decisive, but this literature raises new questions about agreement rather than disagreement.

Sometimes people fail to take others seriously as epistemic peers even though they should. This can happen through the exercise of *testimonial injustice* (Fricker, 2007), which occurs when someone gives less credence to the testimony of another because of identity-based prejudice such as misogyny, racism, or classism. Fricker calls this unjust discounting a credibility deficit and argues that someone who systematically applies credibility deficits embodies the other-regarding epistemic vice of testimonial injustice. Dotson (2011) extends the analysis by considering instances of *silencing* and *smothering*. In silencing, it is not that a speaker makes an assertion that is recognized as an assertion but is discounted. Instead, the speaker is not taken seriously as a potential knower in the first place and, thus, is not in a position to offer testimony. In smothering, would-be speakers self-silence for fear that their words will be misconstrued in such a way that they or members of their marginalized community will suffer further harms, e.g., when Black women in the United States (where fear of state agents is common and reasonable) decide not to report domestic violence by their male partners.

From dyads to triads

In the dyadic case, the question is *whether* and *how much* to trust another individual's testimony. However, in a triadic context, there may be testimony from two people who disagree with each other. This is described in the *two-expert problem* (Goldman, 2001). They may also be peers or near-peers. And they may purport to be experts in the domain, whereas we know that we are nonexperts. The question then is not whether to trust but *which* to trust, since trusting one of them necessarily means mistrusting the other. The problem is exacerbated by the fact that determining which purported expert is more trustworthy is best done by someone who is also an expert, but this is explicitly ruled out in the scenario in question. The thought experiment is not merely hypothetical. Problems like this crop up when, for instance, a debate is staged between two nutritionists. Goldman (see also Mercier, 2020) points out that while there is no surefire way to handle the two-expert problem, there are heuristics we can use, such as testing for plausibility, observing the purported experts' track records, checking for conflicts of interest, looking to broader consensus among other experts, and checking

whether the purported experts have received credentials from respected institutions (though the latter two take us beyond the triadic context).

Returning to the topic of testimonial injustice, Medina (2012) points out that credibility deficits also are better understood in triadic rather than dyadic contexts. When one person testifies to their marginalization, it often happens that someone in a more dominant social position denies or discredits their testimony. As in the two-expert problem, we receive testimony from not just one but multiple sources that sometimes disagree with each other. So once again, the choice is not *whether* to trust but *which* to trust. Medina goes on to point out that Fricker (2007) suggests that only credibility deficits (mistrusting when one should trust) are a serious problem. He argues that, in these more complex cases, credibility excesses (trusting more than one should trust) afforded to members of dominant groups are indistinguishable from credibility deficits applied to members of marginalized groups with whom they disagree.

A final way in which someone's epistemic agency can be undermined is through *gaslighting*, which can lead a would-be testifier to doubt their own perceptual, memorial, agential, or cognitive capacities so much that they lose the confidence required to offer testimony. Abramson (2014) argues that gaslighting, in common parlance, has come to refer to, intentional or unintentional, prolonged engagement with another person—typically a member of a marginalized group—that functions to undermine their self-confidence and that it often relies on social proof from others who concur with the gaslighter. Thus, whereas testimonial justice refers to cases where the hearer does not trust enough, gaslighting goes deeper by inducing *self-doubt* in the would-be speaker. Moreover, the effectiveness of gaslighting often depends on the internalization of identity-prejudicial norms by the target.

From triads to networks

Our epistemic life, and the dyadic and triadic interactions we have with other knowers, takes place in the context of a network of knowers. When we are faced with a two-expert problem, we may seek out more experts, being mindful of how independent these experts are and rely on multiple sources of information. Our epistemic position (how well positioned we are to gain knowledge) depends on multiple factors, including number, independence, diversity, and reliability of sources, and effort required to change the structure of one's epistemic network (Sullivan et al., 2020).

One subfield of social epistemology studies how epistemic networks behave as a whole. The *wisdom of the crowd* effect, where large groups of nonexperts epistemically outperform experts, has been documented in many areas (Nofer & Hinz, 2014). Such cases can be understood as cases of epistemic *group capability*, *group skill*, or *group virtue*.

Social epistemologists are also interested in questions about what conditions are required for crowds to attain wisdom. Crowds are not always wise and suffer from epistemic dysfunction. Such cases include crowds that are too polarized (O'Connor & Weatherall, 2018; Weatherall & O'Connor, 2020) and groups with too much

conformity or the presence of collective epistemic vices, such as collective arrogance (O'Connor & Weatherall, 2019).

In dyadic interactions, it seems that more information transfer is always better epistemically speaking. However, in the case of networks, limiting information can increase the probability that a network or group converges on the truth (Zollman, 2010). When a group of inquirers consist of individuals who have only a limited set of information, or have differing prior beliefs, they perform better than groups where individuals can access all available information. This is because being able to access all information tends to equalize agents' credence in hypotheses, and therefore, potentially fruitful hypotheses remain unexplored. In networks where information is compartmentalized, agents ignorant of the evidence against a hypothesis are likely to keep pursuing it. The more alternative hypotheses are pursued, the less chance there is of hypotheses being rejected too early (Zollman, 2010; Gabriel & O'Connor, 2022; Smaldino et al., 2024). Cases where the epistemic vice of individuals contributes to the epistemic success of the group is called mandevillian intelligence, or mandevillian virtue (Smart, 2018; Astola, 2021).

Broader connections

Social epistemology has been addressed at greater length for a philosophical audience (see Further reading). Social epistemology also draws from other fields and can also contribute in turn to those fields because the main topics of social epistemology include networks (Baronchelli et al., 2013), social learning (Gweon, 2021) [see Social Learning], epistemic character (Sutton & Douglas, 2020), and communicative behavior (de Ruiter et al., 2010). Every field that considers any of these topics intersects with social epistemology to some extent. Social epistemology describes how groups gain and preserve information. Processes like this are essential in almost all domains of human activity and have been essential in human evolution.

Cumulative culture describes knowledge that is only possible in the context of intergenerational transmission [see Cultural Evolution]. Humans have the ability to preserve knowledge, transmit it to the next generation, and add to or refine that knowledge; think of the transmission of language, religion, technological know-how, and science (Boyd & Richerson, 2005). The study of evolutionary epistemology (in the tradition of authors such as Lorenz, 1941), sees the evolution of cognitive capabilities as a source of explanations for how human and animal cognitive processes function (Riegler, 2006).

Finally, the rise of large team research has led to discussions of the social epistemology of research. This trend is especially pronounced in physics, where a recent paper had over 5,000 coauthors (Aad et al., 2015). It is inconceivable that every coauthor of this paper understands all of the details of the experimental design, equipment, materials, models, analytical strategy, and so on of the research. Indeed, it is inconceivable that any single one of them possesses this understanding. In general, though, we often expect that when someone offers testimony, they are able to survey their own reasoning, transfer it to others via explanation, and detect and trace flaws in it when these are pointed out. In cases of large team science, these conditions are not met by any

individual but only by the group. Similar arguments have been made about the rise of team mathematics that draws on disparate areas of mathematical expertise and knowledge (Habgood-Coote & Tanswell, 2023). These cases from science and mathematics may help to inform our verdict on the dispute between summativists and anti-summativists canvassed above.

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