Collective Knowledge and Collective Justification

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Chris Dragos (2016) offers fresh insight into the debate about which sorts of groups in science can be properly said to have knowledge, with a focus on a debate between Kristina Rolin (2008) and K. Brad Wray (2007). As one of the participants in that debate, I would like to offer some remarks on what Dragos contributes to the debate, and where it might go from here.

The Debate: Some Background

The concern in the debate between Wray and Rolin is with the possibility of irreducibly collective knowledge; that is, knowledge that is irreducibly the knowledge of the group. There are multiple types of social groups in science, and social epistemologists who are engaged in this debate are concerned with determine which types of groups are relevant to the epistemology of science (see also Gilbert 2000; Andersen 2010; and Fagan 2011). Rolin, Wray, and others have focused their attention on the following types of scientific groups: scientific research teams; scientific specialty communities; and the scientific community as a whole.

Wray favors restricting the application of collective knowledge to research teams only, and purports to offer a principled reason for this restriction. Research teams, unlike scientific specialty communities and the scientific community as a whole, have organic solidarity. In such groups there is a division of labor. Each contributor attends to only some concerns and research problems that contribute to the larger project, which enables the group as a whole to know things that individually the members of team may not be able to investigate on their own.

Wray insists that neither a scientific specialty community nor the scientific community as a whole has a division of labor designed to achieve research goals. Instead, these sort of scientific groups are characterized by mechanical solidarity. The members of such groups are likeminded insofar as they have undergone a similar socialization or training. But when these latter sorts of groups are said to know something, what we really mean is that each individual member of the group knows. For example, it is individual chemists that have knowledge of the periodic table of elements, not the community of chemists. Thus, there is no irreducibly collective knowledge in these sorts of cases.

Rolin takes issue with Wray’s restriction of collective knowledge to research teams. She defends a more liberal conception of collective knowledge. Rolin claims that even scientific specialty communities and the scientific community as a whole can have justified beliefs about certain scientific matters. Rolin, as Dragos notes, ties her account of collective knowledge to a particular theory of justification, specifically to a default and challenge account, like the account developed by Michael Williams (see Dragos 2016, 1-2). Roughly, on this account of justification an agent is justified in believing something provided she is able to meet challenges to her claims when they arise. But the assumption is that an agent is justified, by default, until challenged (see Williams 2001; Rolin 2008). Rolin believes that there is no reason to think that scientific specialty communities and the scientific community
as a whole cannot satisfy this condition. Consequently, she sees no reason to believe that these sorts of groups cannot have collective knowledge.

Dragos is not the first to weigh in on this dispute between Wray and Rolin. Hyundeuk Cheon (2014) argues that Wray and Rolin are talking at cross purposes. Cheon argues that Wray is offering an account of how collective knowledge is produced, whereas Rolin is offering an account of how collective knowledge is justified. Wray tells us that it is by exploiting the power of an effective division of labor that a group is able to know things individuals could not know working alone. Rolin tells us that any group (or agent) that can satisfy the default and challenge requirement is justified in holding a view. Cheon thus claims that both Rolin and Wray may be correct, but about different issues.

Reconstructing Dragos’ Argument

Dragos takes a more partisan stand in the debate. Dragos presents an argument against Rolin’s criticism of Wray’s view, thus tacitly defending Wray’s restrictive account of collective knowledge. Dragos presents Rolin with a dilemma. The dilemma arises because of an equivocation on the notion of justification. Dragos notes that there are two different ways we might understand justification. Many accounts of justification assume that for a belief or proposition to be justified the justifiers must be possessed by the epistemic agent (be it an individual scientist or some sort of scientific group). An alternative account of justification assumes that for a belief or proposition to be justified the justifier need not be possessed by the epistemic agent. Dragos refers to the first type of justification as auto-justification (J-Auto), and the second type of justification as allo-justification (J-Allo) (see Dragos 2016, 4).

This distinction may look familiar to epistemologists, specifically, like the distinction between internalist and externalist accounts of justification. But Dragos insists that this is not the distinction that concerns him. In fact, he claims that many mainstream externalist accounts of justification, like Alvin Goldman’s, for example, would belong in the first sort of account, the account that says that the epistemic agent must possess the feature or trait that provides the justification in order for the agent to be justified (see Goldman 1979; also Dragos 2016, 4). Dragos’ second account of justification is meant to be compatible with the notion of extended cognition, a notion made famous by Andy Clark and David Chalmers (1998), though Dragos claims to draw inspiration from Sanford Goldberg’s work (see Dragos 2016, 5). On this account of justification, an agent (be it an individual or group) may be justified even when some of the traits and features that provide the justification are not possessed by the agent.

The dilemma that Dragos presents Rolin with draws on this distinction between these two different general accounts of justification. Dragos aims to show that on either account Rolin cannot defend her liberal account of collective knowledge according to which all three types of scientific groups can have collective knowledge. Here is my reconstruction of the two horns of the dilemma.

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1 Here the term “possess” does not mean having cognitive access to something. After all, according to reliabilists like Goldman, an agent can be justified even if she does not have cognitive access to the justifier. But, Goldman would insist that the justifier must be a property or trait of the knowing agent.
First, Dragos assumes that Rolin accepts the first type of account of justification (J-Auto) according to which a knowing agent must possess the justifiers in order to be justified. In fact, Dragos thinks this is Rolin’s view (see Dragos 2016, 5). But Dragos argues that we can imagine cases where a research team relies for justification on the beliefs of others who are not part of the research team (see Dragos 2016, 5-6). Thus, the team’s justification for their belief is not possessed by the team itself. This is a problem for Rolin because she insists that when a group is justified, the group must be able to address any challenges to their alleged justification. But in cases of the sort that Dragos imagines this is not possible. The team itself cannot meet the challenges. Instead they must defer to those who are not part of the research team. Thus, contrary to her aim in criticizing Wray’s account, Rolin must accept a restricted conception of collective knowledge. But, whereas on Wray’s account it is only research teams that can have collective knowledge, on Rolin’s account it is the claims to collective knowledge that research teams make that are questionable (see Dragos 2016, 6).

Let us consider the second horn of Dragos’ dilemma, the horn that assumes that the proper account of justification is the second account (J-Allo) which allows an agent to be justified even if she is not in possession of all of the justifiers. Dragos argues that according to the second account of justification, “collective justification is insufficient for collective knowledge” (Dragos 2016, 8). His reasoning here is a bit murky, but I will attempt a reconstruction. I think Dragos means to suggest that, given the second account of justification (J-Allo), who is justified and who has knowledge come apart in a significant way that undermines Rolin’s liberal view of collective knowledge. An agent can be capable of justifying propositions but not have the capacity to know these propositions. So, though Dragos grants that a scientific specialty community may be able to satisfy Rolin’s default and challenge condition, he insists that such a group may not be capable of having knowledge.

For example, there may be someone in a particular specialty community who is able to justify every claim that we may think is justified by the community in the default and challenge sense that Rolin endorses, but it does not follow that the community as a whole knows each of these claims. The second horn of the dilemma gives rise to a gap between the capacity for collectively justifying propositions and the capacity for collectively knowing them. The implication for Rolin’s account is as follows. Her liberal account of collective knowledge is indefensible. The three types of social groups in science are not all able to satisfy the conditions required for collective knowledge, even if they can satisfy the conditions for collective justification.

Final Remarks

I will leave it to Rolin to address the challenges raised by Dragos as I understand them, and to Dragos to correct any misinterpretations I might have about his views or arguments. But I

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2 Dragos seems to be drawing on our intuitions here, as is typical in traditional mainstream epistemology. Our intuition, he assumes, is that the team is justified, even though they are not in possession of all the justifiers. Because Rolin’s account would lead us to deny that the team is justified, her account must be faulty in some respect.
welcome his contribution to this debate for a number of reasons. First, as one would expect, I welcome an ally in the debate, someone to aid me in advancing a view that I am partial towards. In fact, I am more confident than ever that my restricted conception of collective knowledge is correct. Second, I think Dragos draws attention to the importance of clarifying what we mean by “justification,” a conception that is central to the debate, at least as Rolin frames it. Third, I think it is fruitful to explore the relationship between the notions of (i) collective knowledge and (ii) extended knowledge and cognition.

In fact, this project is already moving ahead, thanks to the leadership of Duncan Pritchard and Andy Clark. Their research group, especially Orestis Palermos, have been exploring these issues in fruitful ways (see Pritchard 2010; Palermos 2014; and Clark forthcoming). I am in no position to report definitive results or a consensus view from Edinburgh, but these philosophers make a compelling case that in our efforts to understand the social dimensions of science, the notion of extended cognition may prove to be insightful.

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References