Justified Group Belief in Science

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Getting Up to Speed

Rolin (2008) and Wray (2007) disagree about which scientific groups can possibly have knowledge. They agree that research teams can have knowledge. Wray claims that only groups satisfying the following condition can have knowledge; Tossut calls it the Wray Condition (W-Cond):

\[ \text{W-Cond: only group subjects that have organic solidarity can be the subject of knowledge (18).} \]

Wray (343-4) contends that neither scientific sub-fields nor the general scientific community satisfy the W-Cond. Only research teams do. Thus, only research teams and not scientific sub-fields or the general scientific community can have knowledge.

Rolin offers a different condition on knowledge, which Tossut calls the Rolin Condition (R-Cond).

\[ \text{R-Cond: a group subject must have group justification to have knowledge (18).} \]

Specifically, Rolin offers a default-and-challenge account of group justification: a group \textit{qua} group is justified in believing (or accepting) that \( p \) only if it is epistemically responsible; a group is epistemically responsible only if \textit{qua} group it can address any reasonable challenges to default entitlements underlying \( p \) (120). If some individual member of the group can alone address any reasonable challenges to default entitlements, epistemic responsibility and so epistemic justification are not group properties; they are individual properties. When no individual member can do this, the group’s membership can jointly commit to distribute responsibility for addressing any reasonable challenges to default entitlements (\textit{ibid}). In such cases, epistemic responsibility and so epistemic justification are group properties. Rolin’s crucial claim in response to Wray is that research teams, sub-fields, and the general scientific community satisfy the R-Cond.

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1 Tossut (18-9) is right to note, as Rolin (118) does, that the W-Cond and the R-Cond need not be understood as mutually exclusive. The point I make in Dragos (2016, 9, note 3), updated with Tossut’s terms, is this: according to Rolin (118) either (1) the W-Cond is unnecessary for group knowledge and the R-Cond is necessary, or (2) the W-Cond is necessary for group knowledge and it is satisfied by the R-Cond. On the former interpretation, scientific sub-fields and the general scientific community fail to satisfy the W-Cond. Yet, they can have knowledge because they satisfy the R-Cond. On the latter interpretation, Wray is incorrect that scientific sub-fields and the general scientific community fail to satisfy the W-Cond. They satisfy the W-Cond \textit{via} satisfying the R-Cond. Tossut nicely points out that the kinds of relations obtaining between members of a group, which is the issue occupying Wray, can be justification-relevant, which is the issue occupying Rolin.
community can all satisfy the R-Cond in some cases. Thus, contrary to Wray’s claim, all three types of groups can have knowledge.

Tossut summarizes Rolin’s reply to Wray as follows: the “R-Cond entails that since sometimes the general scientific community is the epistemically responsible subject, sometimes it can be a knowing subject” (18). The dilemma I pose to Rolin in Dragos (2016) stems from the claim that some subjects to which Rolin wishes to attribute the capacity for bearing knowledge are not identical to the subject involved in attaining epistemic justification. I argue at some length that research teams always rely on agents outside the team to address any reasonable challenges to some default entitlements. Specifically, research teams rely on individual non-members and on their parent scientific sub-fields. In Dragos (2016), I take Rolin to argue that our grounds for attributing the capacity for bearing knowledge to the general scientific community is just that, for some cases of knowledge, members of the general scientific community qua members of the general scientific community are relied upon for addressing any reasonable challenges to default entitlements. That is, the general scientific community can know just because the general scientific community can be involved in justifying. In Dragos (2016), I understand Rolin as uncritically assuming an epistemological principle I call autojustification (J-Auto):

**J-Auto:** the possessor or proper subject of any knowledge that \( p \) must be the possessor or proper subject of all justifiers.  

J-Auto says that the knowledge bearing subject is identical subject that contributes justifiers. Thus, if a group to which Rolin wishes to attribute knowledge is not identical to the set of individuals contributing justifiers (i.e. to the set of individuals relied upon for addressing any reasonable challenges to default entitlements), J-Auto implies that knowledge cannot be attributed to that group. The first horn of the dilemma I pose in Dragos (2016) is this: if J-Auto is assumed, then for knowledge generated by research teams the set of justifier contributors extends beyond the research team; thus, research teams cannot know (5). In other words, Rolin’s argument that the general scientific community can have knowledge comes at the cost that research teams cannot.

If this is right, it pushes Rolin toward a different epistemological principle, which I call allojustification (J-Allo):

**J-Allo:** the possessor or proper subject of any knowledge that \( p \) need not be the possessor or proper subject of all justifiers.

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2 In Dragos (2016), I use the term “J-factor” instead of “justifier.” But the introduction of a new term is unnecessary. The term, “justifier,” is originally due to Alston (1989, 189). Tossut kindly employs my terms and she’s correct that justifiers/J-factors are simply “all the factors that are subject to epistemological evaluation to determine whether justification obtains” (19). I thank Wray (2016) for prompting the use of “justifier.”

3 In Dragos (2016, 4), I am sloppy when defining J-Auto as the principle according to which the knowing subject *does* possess all justifiers. J-Auto should be defined as the principle according to which the knowing subject *must* possess all justifiers. Tossut rightly points out that the previous formulations of J-Auto and J-Allo are compatible (19-20). Wray also offers a helpful clarification: “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
The upshot of J-Allo for Rolin is that research teams can depend on non-members, including their parent scientific sub-fields, for justifiers. Even when the membership of a research team does not itself do all this work, the research team can still possess knowledge. Yet, according to the second horn of the dilemma I pose in Dragos (2016, 5), J-Allo undercuts the motivation for Rolin’s central thesis that, contrary to Wray’s claim, the general scientific community can have knowledge. According to J-Allo, contributors of justifiers are not parties to the knowledge bearer simply in virtue of contributing justifiers. It is possible for an agent (whether individual or group) to contribute towards knowledge in a justification-relevant way without that agent possessing knowledge. Inversely, knowledge bearers need not contribute all justifiers; they can depend on others. In Dragos (2016, 5), what I take Rolin to have shown is only that the general scientific community can contribute justifiers to some subject’s (e.g. an individual’s or a research team’s) knowledge, not that the general scientific community can have knowledge.

I will respond to two of Tossut’s criticisms in the remainder of this section before conceding to a third in the following section. I will then respond to a fourth criticism in the conclusion of this paper. First, Tossut contends that I “assume that R-Cond is meant to be a sufficient condition for knowledge” (20). I claim responsibility for this confusion, since I ambiguously claim that Rolin “straightforwardly infer[s] collective knowledge from collective justification” (ibid). This does not mean that a specific token of knowledge attains the status of knowledge strictly in virtue of being justified. Rather, the inference I target is from group justification to viable candidacy for knowledge. Put another way, in Dragos (2016) I take Rolin’s argument to be that groups are appropriate candidates for having knowledge just because they can attain epistemic justification. Indeed, in posing the second horn of the dilemma against Rolin’s argument, I write that “collective justification is insufficient for collective knowledge,” (Dragos, 8, emphasis added) by which I mean it is insufficient for establishing candidacy for knowledge. This is also why J-Auto and J-Allo are merely necessary conditions.

Second, Tossut contends that “if Dragos wants to discard Rolin’s approach, he should also tell us which alternative interpretation of collective justification he has in mind” (19). I will first say that in order to identify what appear to be shortcomings in a proposal, one need not offer a solution or a replacement proposal; criticisms are often useful, insightful, and so can stand on their own. Still, Tossut’s suggestion is a nice guiding principle given the sheer volume of negative philosophy on offer. I do not think Dragos (2016) qualifies as negative philosophy, however. I do state that Dragos (2016) is an application of a larger issue I am developing elsewhere (6). Furthermore, there is a positive proposal in Dragos (2016): J-Allo is a general principle that I think should be considered when constructing any account of justification. It is an important consideration, given the reality that for much knowledge

property or trait of the knowing agent.” (2016, 25, note 1). I thank both Tossut and Wray for their help clarifying J-Auto and J-Allo.

4 To be more precise, the second horn of the dilemma is just more acute when applied to the general scientific community. Really, the idea is more general; J-Allo undercuts motivation for claiming that there is any or much group knowledge. I return to this general point in the conclusion of this response.
there are justification-relevant relations obtaining between the cognitive efforts of multiple agents.

In Dragos (2016) I spell out this reality specifically in the context of Rolin’s default-and-challenge account of justification (5-8). I point to the complex, dynamic, and epistemically rich relationship obtaining between research teams and non-members, and between research teams and their parent sub-fields. A consequence of this complexity is that the epistemically responsible subject in science is often (very) extensive. My argument in Dragos (2016) is that epistemic responsibility is an insufficiently precise indicator of candidacy for knowledge possession. This is not a problem for a default-and-challenge account of justification itself, and so Tossut need not worry that Rolin’s approach is being discarded (19). Indeed, Rolin’s account is a very helpful way of illustrating the complex, dynamic, and epistemically rich relationship between research teams and their parent sub-fields. My argument in Dragos (2016) targets the idea that a subject is a candidate for having knowledge just because it is involved in an epistemically salient way.

Rolin’s Argument from Justified Group Belief

Tossut is correct that I misunderstand Rolin’s argument in Dragos (2016), though the misunderstanding is not, as Tossut contends (20), due to a misunderstanding of justification as a sufficient condition for knowledge. In Dragos (2016), I take Rolin to argue that a group is a candidate for having knowledge just because the members can together attain epistemic justification. However, Rolin does not argue that the capacity for knowledge possession comes from the capacity for epistemic justification alone. It comes from the capacity for epistemic justification of belief (or acceptance) that \( p \) of a subject jointly committed to believing (or accepting) that \( p \). In Dragos (2016), I overlook the group belief component of Rolin’s proposal. I take this to be the core point of Tossut’s (20) criticism B of my argument. This correction is all the more welcome because it is the kind of proposal I am careful to not rule out in the conclusion of Dragos (2016). There, I reject what I call the argument from group justification to group knowledge (9). However, I explicitly leave open the possibility of a successful argument from group belief to group knowledge (ibid). According to this argument, groups can have beliefs (or acceptances) that are subject to epistemic evaluation. If group beliefs can satisfy the other conditions on knowledge (e.g. justification, truth), groups beliefs can attain the status of knowledge. Rolin (2008) takes Gilbert’s joint commitment account of group belief and appends to it her default-and-challenge account of justification. This is the kind of proposal I did not want to rule out.

Yet, I think my argument in Dragos (2016) still provides good reason for Rolin to accept J-Allo. According to Gilbert (2000, 39-41), a group believes that \( p \) when its membership jointly commits to take \( p \) as the position of the group. Each individual member who jointly commits to believe that \( p \) is obligated to not deny that \( p \) without qualification (ibid, 44). According to Rolin (2008), a group’s belief (or acceptance) that \( p \) is justified only if the group is epistemically responsible. That is, the group is justified only if its membership also jointly commits to distribute responsibility for default entitlements among the group’s members.

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The last four words of the preceding sentence suggest a commitment to J-Auto: members of the knowledge bearing subject must contribute all justifiers. I still think this is a problem because I do not withdraw the claim that motivated my argument in Dragos (2016): some subjects to which Rolin wishes to attribute the capacity for bearing knowledge are not identical to the subject involved in attaining justification. Yet, now that (I think) I have understood Rolin’s argument, I do not think J-Allo is a problem for it. A group can jointly commit to distribute responsibility for default entitlements among both members and non-members. Since Rolin does not infer a group’s candidacy for knowledge only from group justification, J-Allo does not undercut Rolin’s argument from justified group belief to candidacy for group knowledge. Rolin can accommodate the complication that some subjects to which she attributes the capacity for bearing knowledge are not identical to the subject involved in attaining justification.

**Joint Commitment in Science?**

If Rolin’s (2008) argument is an argument from justified group belief to group knowledge, I think it is vulnerable to an independent criticism: many (perhaps most) of the results we call scientific knowledge are not cases in which scientific groups have beliefs (or acceptances) in the joint commitment sense. I stress that the following criticism concerns only Gilbert-style joint commitment notions of group belief (or acceptance). There may be other accounts of the type of agency or intentionality obtaining in scientific groups in terms of which we might say there are justified group states that can possibly amount to knowledge.

de Ridder (2014) targets Wray (2007), Rolin (2008), and Gilbert (2000; 2004), all of whom he takes to adopt joint commitment models of group belief (or acceptance) in science. de Ridder agrees with Bird (2010, 29) and Thagard (2010, 280) that scientific groups generally do not jointly commit. Rather,

Formation of a collective view, if it happens at all, is usually more organic or emergent. And when a collective view has formed organically, it is not normatively binding. When an individual scientist is convinced she has good reasons to reject the view, she is not under any obligation to refrain from doing so, at least not solely in virtue of her being a member of a collective (41).

In short, Gilbert’s account of group belief “has limited application in science,” especially in the context of entire scientific subfields or the general scientific community (ibid).

Curiously, Rolin argues only that the general scientific community should jointly commit qua general scientific community to distribute responsibility for default entitlements among its membership. She does not argue that it does. If de Ridder, Bird, and Thagard are right that it does not, then Rolin (2008) only shows, at most, that a hypothetical general scientific community can have knowledge.
Conclusion

I close by responding to a fourth of Tossut’s contentions. She claims that debate in collective epistemology, including Dragos (2016), is concerned that “collective knowledge might prevent the possibility of individual knowledge” (20). I am not concerned that the possibility of group knowledge prevents the possibility of individual knowledge. My underlying motivation is that we should invoke group knowledge only if it is necessary to analyse what is going on. I take it from Wray’s (2016) commentary on the larger issue that he agrees. I also believe to be speaking for others (e.g. Giere 2007; Thagard 2010). I propose to collective epistemologists that J-Allo is important to this end. J-Allo strengthens the possibility that each case of knowledge can in principle be given a plausible analysis as individual knowledge. J-Allo allows for some (perhaps many) cases in which individuals know even while depending on others for justifiers. I anticipate that some (e.g. Wray, Giere, Thagard) may welcome this approach, or at least encourage its exploration.

I anticipate that Wray specifically may welcome J-Allo because, even if it is necessary to invoke some group knowledge, I contend that we should invoke only as much as necessary, and only as many kinds of group knowers as necessary. I believe this reflects Wray’s (2007; 2016) contention, since he accepts that knowledge can be had by some groups and not by others. To this end, J-Allo is important; it may allow us to avoid attributing knowledge widely among many types of groups. J-Allo allows for the possibility that groups of all kinds can make justification-relevant contributions (i.e. they can contribute justifiers). This does not mean groups of all kinds can have knowledge. While J-Auto leads us to this conclusion, J-Allo says that a group is not party to the group knowledge bearer strictly in virtue of contributing justifiers. Instead, groups (e.g. research teams) can have knowledge while depending on others, including other groups (e.g. scientific sub-fields or the general scientific community), for justifiers.

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References


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6 A main motivation for the criticism Tossut offers in reply is that individual and group justification can be different. In response, I offer a reply analogous to the one I offer about group knowledge: we should invoke a uniquely group-level justification only if it is necessary to analyse what is going on. My hope is that a general account of justification is possible, at least knowledge-level justification. Indeed, my larger project is to develop the structure of a general theory of individual and group epistemic justification.

7 I thank Brad Wray for helpful comments on a draft of this response.


