

# 13 From Popper to Standpoint Theory

## Reason and the Canon

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### 1. Argument and the Canon

One way to evaluate the development of a ‘canon’ is to consider the imposition of a set of ‘canonical’ texts within a research community. These texts are taken as work that should be emulated in order to attain success within that community. The canon becomes a soft, but nonetheless real, restriction on research. In other words, there are no strict rules that forbid work that ventures too far outside the implicit boundaries of the canon, but there are community norms that strongly discourage it.

One might ask, though, how the canon actually works in this way. Let us, at first, focus on the disciplines of science and philosophy. Scientific and philosophical education tends to take place through formal and informal methods (e.g. coursework, mentorship, peer group discussion, independent reading and reasoning).<sup>1</sup> It may seem that, even if a rigid canon is enforced through course syllabi, those who are educated into philosophy are still free to reason as they like. After all, simply assigning a book as a textbook does not, in and of itself, restrict the ability of students, and later researchers, to choose different topics, methods or approaches. Researchers are, at least in principle, free to choose whichever models and methods they like for their work.

To paraphrase Rousseau: researchers are born free, but everywhere they are in chains.<sup>2</sup> The apparent liberty of scientists and philosophers to reason as they like is belied by a rigid set of standards for published work, and thus for being accepted into the research community.<sup>3</sup> To analyse the way these

1. In the 1950s, Roderick Chisholm and a large committee published a report on ‘Graduate Education in Philosophy’ in the Proceedings of the APA. The committee argued that ‘preparation for a teacher of philosophy should also be preparation for a philosopher and it should involve investigation which may itself contribute to philosophy or to historical scholarship within philosophy’ (Chisholm, Alexander, Hahn, Hayner, & Hendel, 1958–1959, p. 147).

2. They share these chains with researchers in the sciences, to be sure.

3. One may certainly publish in journals that are not so demanding, but the chances of obtaining a good job and tenure by doing so are miniscule.

standards operate, this chapter would have to delve into a sociological analysis of the development of departments, journals, main figures and research communities, and to demonstrate how these factors contribute to the evolution of norms for research.<sup>4</sup> That would be a daunting task, and one that cannot be achieved easily in one paper.

Instead, this chapter will focus, at first, on a closely related question: how best to encourage pluralist viewpoints and challenges to orthodoxy in a research community, while preserving the value of rational engagement between researchers. The chapter will focus on a critical analysis of Karl Popper's 'Myth of the Framework' argument levelled against Thomas Kuhn and Willard van Orman Quine. In *The Structure of Scientific Revolutions*, Kuhn had argued that scientists are initiated, via a process of training and education, into a 'paradigm', which provides a framework for novel achievements and operates using certain background assumptions. In *Word and Object*, Quine had argued for the indeterminacy of translation between frameworks. In Kuhn's hands, the incompatibility of paradigms had political implications for research communities. In Chapter 9 of *Structure*, Kuhn argued that clashes between incompatible paradigms lead to violent revolution: the overthrow of one paradigm in favour of another.<sup>5</sup>

Popper counters that Kuhn's and Quine's positions lead to a pernicious relativism that blocks the possibility of fruitful discussion between people with different background beliefs and commitments (Popper, 1976, pp. 35–36 and *passim*). The stakes could not be higher. Popper believes that if those who disagree cannot find some ground for rational engagement, they will resort to violence: relativism about the truth will lead to social breakdown.<sup>6</sup>

Popper opposes 'orthodoxy' of belief, but he also opposes any form of relativism (1976, pp. 35–36). Popper supports a pragmatic form of pluralism, in the sense that he supports challenges to any proposed orthodoxy of belief. But he also argues against epistemic pluralism, or relativism, about truth. There is a tension, in practice, between these commitments. If one has access to what one believes to be the truth, then of course one will attempt to install it as an orthodoxy. Popper argues not only that 'orthodoxy is the death of knowledge' and must be challenged, but also that knowledge of the truth is possible and seeking the truth is necessary (1976, p. 36).

Popper's critique of Kuhn and Quine is presented in Section 2. Section 2 will make explicit how one might actually mount a challenge to any idea of a philosophical canon using Popper's 'Myth of the Framework' argument. Section 3 will argue that Popper's notion of 'critical inquiry' is incomplete as a response to his framework worries. In fact, what is missing in the debates between Popper, Kuhn and Quine is attention to the problem of reception,

4. There is increasing work being done on the role of journals in philosophy (Richardson, 2012; Malaterre, Chartier, & Pulizzotto, 2019; Katzav, 2018 and more).

5. Kuhnian revolutionary 'violence' is only metaphorical: no guillotine awaits the ether theorist.

6. Popper means actual physical violence.

specifically, of how the community of inquiry must be constituted in order to recognise achievements and engage in fruitful discussion.

## 2. Thomas Kuhn's *Structure* and Karl Popper's Myth of the Framework

In *The Structure of Scientific Revolutions*, Thomas Kuhn begins by arguing that science does not proceed by accumulating results under a single framework.<sup>7</sup> Instead, landmark scientific achievements, like Lavoisier's *Chemistry* or Newton's *Principia*, set 'paradigms' for future research.<sup>8</sup> Paradigms are not just background theories, for Kuhn, although of course they may involve background theories.<sup>9</sup> Instead, Kuhn argues that 'normal science', science under a paradigm, should be seen as a practice deeply embedded in social norms involving how to recreate and extend scientific achievements.<sup>10</sup>

For Kuhn, a shift from one paradigm to another is a severe break. Scientists only decide to abandon one paradigm, and adopt another, after what they perceive to be a crisis for the original paradigm: the buildup of experimental or logical anomalies, for instance.<sup>11</sup> But once the decision has been made, a paradigm shift is not merely a piecemeal replacement of parts of a theory with new elements. It is an entire shift of worldview, replacing conceptual and ontological<sup>12</sup> categories wholesale.<sup>13</sup>

The most relevant chapter of *Structure* for the discussion that follows is Chapter 9: 'The Nature and Necessity of Scientific Revolutions'. Here, Kuhn motivates his central metaphor of a 'revolution' in science.<sup>14</sup> Kuhn

7. Kuhn (2012/1962), ch. 1. See the essay 'What Are Scientific Revolutions?' in Kuhn (2000) for a detailed explanation of how the notion of a revolution in science works against the 'cumulative' picture of science. As Mladenovic (2007) and Wray (2015) show, much of this argument in *Structure* itself is driven by Kuhn's appeal to the work of historians of science, whom he cites frequently throughout. Mladenovic notes that Kuhn's project changed later in the 1990s, but our focus here is on *Structure*.
8. Kuhn (2012/1962), ch. 2.
9. Paradigms can be viewed in multiple ways, and Kuhn does so in *Structure*. Margaret Masterman (1970) identified 23 distinct uses of the word 'paradigm' in *Structure*. She herself argued for an almost entirely social account of paradigms. Later, Kuhn responded, 'I can't make [what she said] work quite but it's very deeply to the point: a paradigm is what you use when the theory isn't there' (Baltas et al., 2000, p. 300).
10. A practical reading of Kuhn has been developed by authors, including Joseph Rouse (2013), Hanne Andersen (2000), Stig Brorson and Andersen (2001) and Paul Hoyningen-Huene (2002, 1993).
11. Kuhn (2012/1962), ch. 1.
12. This can lead to 'Kuhn loss': the loss of a set of things that the old paradigm referred to and the new paradigm does not.
13. Kuhn explains paradigm shifts by appealing to the notion of a 'gestalt shift' from Gestalt psychology, but care is needed here. Sometimes Kuhn does think the analogy holds, and sometimes he cautions against using it (Kuhn, 2012/1962, chs. 8 and 10).
14. See Wray (2007) for an analysis of Kuhn's notion of a 'revolution'. The essay is discussed further below.

intends scientific revolutions to be understood as analogous to political revolutions. They are not cumulative, gentle efforts at reform. Revolutions only occur once such efforts fail. Ultimately, the ‘choice between competing . . . paradigms proves to be a choice between incompatible modes of community life’ (2012/1962, p. 94).<sup>15</sup> A research community cannot pursue work under both paradigms at the same time. The old paradigm must be rooted out and replaced with the new one. If a scientific revolution is necessary, violent overthrow is the only option.

That is exactly what Karl Popper was afraid of: he fears the violence that follows the breakdown of efforts to communicate across paradigms. Kuhn’s ‘violent’ scientific revolutions are only metaphorical. Kuhn means that the imposition of a new paradigm takes place by overthrow of the institutions that govern a research community: a scientific revolution. Kuhn doesn’t mean that physical violence takes place. Rather, he means that the overthrow is not by means of rational argument, but by taking over the political system and institutions in charge of scientific research.<sup>16</sup>

Popper responds that, when rational argument breaks down in the political sphere, actual physical violence can be the result. Popper warns that ‘irrationalism’ and ‘relativism’ threaten peaceful, shared political life.<sup>17</sup> In ‘The Myth of the Framework’ (1976), Popper begins with the observation:

In my view, one of the main components of modern irrationalism is relativism (the doctrine that truth is relative to our intellectual background or framework; that it may change from one framework to another), and, in particular, the doctrine of the impossibility of mutual understanding between different cultures, generations, or historical periods.

(1976, p. 35)

Popper aims his critique at the broadest possible reading of *Structure*: he does not say so, but since *Structure* is aimed at science, and science is seen to be constitutive of rational discourse, Popper widens the net of the discussion to the foundations of rational, critical discourse: ‘This paper sets out to challenge relativism in its widest sense’ (Popper, 1976, p. 35). We will follow his lead in what follows since our wider context is the question of canons in philosophy.<sup>18</sup>

The process of discovering, building and testing the warrant for a claim, on Kuhn’s account, takes place within a paradigm. To Popper, this is

15. The practical reading of Kuhn shows its value here. With his notion of a ‘paradigm’, Kuhn is not talking about simply accepting a theory, or not. He is talking (as well) about a paradigm as a set of norms and values that govern ‘community life’ in a very practical way.

16. These institutions may be formal or informal: they may involve journals, universities, syllabi, textbooks and the like.

17. For a detailed and philosophically sophisticated analysis of relativism in the philosophy of science, see Kusch (2020).

18. An account of philosophical research communities similar to Kuhn’s can be given, *mutatis mutandis*, as Alan Richardson has shown (2015, 2002).

indefensible, not just because it undermines the truth of any claim, but because it undermines the ability of rational agents to criticise one another. The basis of Popper's position is quite simple:

The myth of the framework can be stated in one sentence, as follows: A rational and fruitful discussion is impossible unless the participants share a common framework of basic assumptions or, at least, unless they have agreed on such a framework for the purpose of the discussion. *This is the myth I am going to criticize.*<sup>19</sup>

To be clear, this is the position Popper *rejects*. One motivation for Popper's account is that, if there is no common basis for discussing the justification of a claim within separate frameworks, then subjects are imprisoned within their frameworks. Popper advocates breaking out of prison by 'studying the new language and comparing it with our own' (1976, pp. 51–52). Popper's point is subtle. It is not that statements cannot be relative to a framework at all. It is that, if we wish to make statements from within a framework, the truth and justification of that statement must be rationally evaluable from multiple standpoints: truth and rational justification cannot be relative to a framework. We must be able to compare any language with our own, and to construct a broader framework that encompasses both. Frameworks, Popper argues, can be distinct, but should not be mutually rationally inaccessible. If that is the case, then we lose the possibility for rational 'confrontation' and thus for critical inquiry across difference, which is a necessary condition for political stability.

Popper's position is weakest, in my view, when he criticises Kuhn and Quine for arguing that disputants must share background beliefs for rational and fruitful discussion to take place, including 'confrontation' or disagreement as well as the attempt to reach agreement.<sup>20</sup> Popper's motivation for this claim was Quine's argument for the indeterminacy of translation between frameworks in *Word and Object*, as well as Kuhn's argument for the incommensurability of paradigms in *Structure*.<sup>21</sup>

But neither the indeterminacy of translation nor Kuhnian incommensurability has the necessary consequence that the grounds of disagreement between those who inhabit different frameworks are unintelligible, and thus that no rational discussion is possible. Someone who is positioned within one framework must 'think themselves in' to the other in order to understand

19. Popper (1976, p. 36), emphasis in original.

20. It is possible that Popper does not make this argument explicitly in 'Myth', although I think it can be found there. Popper often holds back in this essay from making any argument at all, instead appealing to sweeping statements about Greek history and Biblical narratives. Surprisingly, Popper even espouses a narrative structure for science, as will be discussed in the conclusion of this chapter (1976, p. 43).

21. See Mizrahi (2015) for a more recent argument against Kuhnian incommensurability.

the other person's position. But, by definition, a rational agent can understand the basis of a framework. And, once one has done so, one can understand the reasons for accepting a claim within a different framework.

To say that frameworks are *incommensurable* and that translation between them is *indeterminate* is not to argue that the grounds of discussion and confrontation are *rationaly inaccessible* to people who inhabit distinct frameworks. Kuhn argues that Aristotle's concept of motion does not have a straightforward analogue in Newtonian physics.<sup>22</sup> That is to say, one cannot translate any given statement about 'motion' in Aristotle's natural philosophy into an equivalent statement about 'motion' in classical mechanics. But that is not to say that someone initially trained in the Newtonian paradigm cannot understand statements about motion in the Aristotelian paradigm. Quite the contrary: Kuhn's essay 'What Are Scientific Revolutions?'<sup>23</sup> contains a detailed narrative about how Kuhn himself came to understand the difference between Aristotelian and Newtonian motion, and how that difference was rooted in the distinction between the two paradigms.

To clarify the situation, consider a case of disagreement stated in general terms. Imagine a disagreement between person A, who prefers framework A, and person B, inhabiting framework B. Person A thinks their way into framework B, which involves understanding the background beliefs and commitments that make up framework B. Having done so, person A can understand the following:

1. Claim A that person A believes within framework A.
2. Claim B that person B believes within framework B.
3. The reason there is at least a *prima facie* conflict between claim A and claim B.
4. The fact that the conflict in (3) can be clarified by showing that analysis of frameworks results either in agreement or in recognition of the grounds for disagreement.

Statements 1–4 must be true for the state of affairs Popper cites as 'The Myth of the Framework' to obtain at all.

It should now be clearer why Popper's readings of Quinean indeterminacy of translation and Kuhnian incommensurability of paradigms motivated his account in 'Myth'. We can show that claims for failure of translatability between frameworks are one root of Popper's argument (though not the only one) by proving the following proposition:

**Proposition 1** If frameworks are inter-translatable, then the statement that the grounds of discussion and disagreement are unintelligible between frameworks (the 'Myth') is false.

22. See 'What Are Scientific Revolutions?' in Kuhn (2000).

23. Reprinted in Kuhn (2000).

The following is an argument for Proposition 1:

1. If we can show that any statement of framework A can be translated into a statement of framework B, and that the inference rules can be translated as well, then we can show that either the premises and rules of inference supporting claim A are valid in framework B, and vice versa, or they are not.
2. If premise (1) is true, then either there is no disagreement or there are grounds for disagreement. If the premises and rules can be translated, then there are two possibilities.
  - a. The premises supporting claim B, and the rules of inference allowing for the inference, hold good in framework B, and can be translated to premises and rules that hold good in framework A. Then person A has reason, *within her own framework*, to accept claim B and vice versa. In that case, there is no disagreement, and discussion will uncover the rational grounds for agreement between the two subjects.
  - b. If the premises and rules used to support claim B can be translated, there may be some factual claim that is accepted in framework A but not in B, or some rule of inference that holds in A but not in B (or vice versa).<sup>24</sup> In that case, we can identify the grounds for disagreement, and this yields explicit grounds for discussion of whether the disagreement is rationally justified.

Therefore, if Kuhnian incommensurability (or, *mutatis mutandis*, Quine's indeterminacy of translation) doesn't hold, then the claim that the grounds of disagreement and discussion are unintelligible between frameworks doesn't hold, either.

Thus, the Myth of the Framework is a consequence of failures of translation between frameworks.

The above is effectively a restatement of Popper's argument against Kuhn and Quine. Popper likely would observe, after reading the above, that the grounds of disagreement in (2b) above are differences having to do with *the background framework*. The 'Myth of the Framework' is precisely the statement that one cannot resolve these differences between frameworks on rational grounds.<sup>25</sup>

But one can argue that frameworks are incommensurable, but that the differences between them are based on rational grounds. For instance, a short

24. Note that, in the Myth of the Framework example, Popper does *not* require that the frameworks be categorical. If he did, then premise (2b) would not go through. Note further that translatability does not in general require categoricity unless we impose the further requirement that the translation be bijective.

25. For instance, according to Popper's reading of Kuhn, Kuhn argues that paradigm shifts cannot be rationally reconstructed.

while before Popper was writing, the differences between Brouwer's intuitionistic logic and Hilbert's formalist approach were debated. Some specific disagreement between Brouwer and Hilbert might be traced to Brouwer's acceptance of intuitionistic logic and Hilbert's rejection of it. According to Popper's anti-framework argument, this disagreement between Brouwer and Hilbert would be considered 'irrational'. But Brouwer can provide reasons in support of his acceptance of the intuitionistic framework, and Hilbert can do likewise. The conflict between intuitionistic and formalist frameworks is a rational conflict, in the sense that the conflict is based on reasons.

As Alan Richardson notes, there is more than one model of rationality. If 'one's model of reason is exhausted by experimental demonstration and deductive reasoning from universally evident premises', then 'one will be tempted to view scientific revolutions as irrational' (2002, p. 260). But there are other models available. Another model is to provide a set of rules that 'jointly constitute . . . the rules of rationality' within a framework (2002, p. 256). On this model of rationality, it can be rational to make a certain inference within Brouwer's intuitionistic framework, but not within Hilbert's formalist one.

Popper is still left with a worry. Remember that Popper's real concern is to avoid the breakdown of rational engagement in discussion and critical inquiry because such breakdowns may lead to disorder and violence. It is highly unlikely that the conflict between intuitionism and formalism will lead to significant bloodshed. But Popper himself cites 'people like the Marxians, the Freudians, and the Adlerians', who in Popper's view engage in a 'depressing and repelling' practice of dismissing all criticism of their preferred framework:

[C]riticism of Marxian ideas was due to class prejudice, criticism of Freudian ideas was due to repression, and criticism of Adlerian ideas was due to the urge to prove your superiority, an urge which was due to an attempt to compensate for a feeling of inferiority.

(1976, p. 52)

Popper diagnoses his own repulsion as stemming from the tendency of 'people like' this to dissolve all rational confrontation into the framework: that is that any attempt to refute the conclusions of a 'Marxian', 'Freudian' or 'Adlerian' will be met, not with due rational consideration and critical inquiry, but with facile rebuttals derived from the framework itself.

Thus, Popper can concede to Richardson that there are distinct models of rationality. The 'Marxian', for instance, may see her own rules as constitutive of reasoning within 'the' Marxist framework.<sup>26</sup> But according to Popper,

26. It is optimistic in the extreme to think that there is a single Marxist framework, a point Popper does not raise.



that is the whole problem. Popper's Marxian, Freudian or Adlerian will never attempt to depart from his own framework enough to consider possible counterexamples to it. They exemplify Kuhn's normal scientist, who cannot be persuaded of the merits of the new paradigm, but can be swayed only by the violent overthrow of the institutions of science. Popper argues that this is not the fault of the inherent structure of scientific revolutions, as Kuhn alleges. Instead, Popper traces the need for violent revolution to failures of critical inquiry: some people are unwilling to consider 'confrontations' or refutations of their own views, and so they cannot be persuaded by rational means, only by revolution.

The ground-level problem Popper identifies is that, if epistemic positions and warrants are defined within distinct, particular, non-universal frameworks, and only valid within a given framework, then there is no rational means to resolve disagreements or to pursue fruitful discussion. By encouraging the view that frameworks determine rationality, Popper argues, Kuhn and Quine encourage pernicious relativism and the violent breakdown of society.<sup>27</sup>

Popper shies away from the conclusion that we should require agreement at the end of a rational discussion: '*we must not expect too much: we must not expect that a confrontation, or even a prolonged discussion, will end with the participants reaching agreement*' (1976, p. 38). After all, Popper argues, science should be an open-ended inquiry seeking the truth. Perhaps the truth is found in neither of the available frameworks. In that case, rational discussion should hold back from premature agreement, instead leaving the investigation open.

If we were to identify 'frameworks' with 'canons', or with what Popper calls 'orthodoxy', Popper's position can be cited as a reason against a universal canon. That is, one could make an argument of the following kind:<sup>28</sup>

1. Work within a research community cannot proceed rigorously without a way to settle disagreements and pursue fruitful discussions on epistemic, rational grounds: the method of critical inquiry.<sup>29</sup>
2. Critical inquiry must not impose on discussants the requirement to adopt a broad set of epistemic beliefs and commitments, that is a common framework, in order to pursue fruitful discussion or settle disagreements (*Conclusion of 'The Myth of the Framework' argument*).
3. A canon, in practice, imposes the requirement of a common framework by requiring adherence to common texts, background beliefs, and commitments.

27. Yes, that is really his position.

28. Note that I am not claiming Popper himself made this argument: only that it could be made, starting from the raw materials of his view used as premises.

29. Popper's conclusions in 'Myth' are related to his political positions: epistemic agents, in his view, should be free from coercion, and that can be the case only if conflicts are resolved on rational, not political grounds.

Therefore, a canon is not only unnecessary for critical inquiry within a research community, but it is also dangerous to it.

Popper argues that he is an opponent of ‘orthodoxy’. This argument, using his conclusions in ‘Myth’ as premises 1 and 2, makes his reasons for saying so more explicit.

### 3. Recognition and Communication

In closing, I will say more about the lacunae in Popper’s notion that a community of rational inquiry can close the gaps Kuhn and Quine found in communication between frameworks.

Popper’s community of inquiry is governed by a single ideal of ‘rationality’. Popper argues for this ideal by citing the growth of science and inquiry in the West, which he sees as constitutive of science and even of critical inquiry:

The critical tradition is constituted by the adoption of the method of criticizing a received story or explanation and then proceeding to a new, improved, imaginative story which in turn is submitted to criticism. This method, I assert, is the method of science. It seems to have been invented only once in human history. It died in the West when the schools in Athens were suppressed by a victorious and intolerant Christianity, though it lingered on in the East. It was mourned during the Middle Ages. And it was not so much reinvented as reimported in the Renaissance, together with the rediscovery of Greek philosophy and Greek science.

(1976, p. 43)

It is rather unfair to cite this passage as Popper’s definition of science, since he gives much more compelling accounts elsewhere (in the introductory passages of *Conjectures and Refutations*, for instance). I cite it only to note that, when Popper is pressed to explain why he values ‘critical inquiry’ over other types of social, community life or even ‘human nature’ (1976, p. 59), he returns each time to some version of *criticism*: that any viewpoint must be subject to rational confrontation.

Popper argues against Kuhn’s idea that ‘normal science’ involves a certain practical way of looking at or interacting with the world. ‘[I]n science, as opposed to religion’, Popper argues, ‘it is the *theories* that are paramount’ (1976, p. 56). Scientific inquiry, to Popper, is only the rational method of evaluating theories, and excludes consideration of social practices or modes of community life.

Popper’s versions of ‘science’ and ‘rational inquiry’ are restricted to consideration of *theories* and *arguments*, and exclude in principle consideration of the social and political practices that characterise a particular community. Any position or framework must be subject to rational criticism. But the standards of rational criticism themselves are considered to emanate from a

practice that, as Popper recognises earlier, arose only once in human history and only in one specific cultural context. Nonetheless, Popper argues, these standards must be recognised as having sway over the community of rational inquiry. If they are not, then we risk the tyranny of the frameworks.

Thus, while Popper nominally opposes the canon (or, as he calls it, ‘orthodoxy’) in philosophy and in science, arguably, he brings a version of the canon in by the back door. Standpoint epistemology can be credited with recognising this slippery move, and with demonstrating that Popper’s community of rational inquiry requires a more substantial account. Filling in those lacunae was among the motivations for the development of some strands of standpoint epistemology.

Still, given his opposition to frameworks and to social analyses, it is somewhat surprising that Popper’s position has been cited as one of the precursors of feminist standpoint epistemology.

Feminists build on a tradition including Mill, Popper, and Feyerabend (Lloyd, 1997) by offering (i) a more articulate conception of ‘all points of view’, stressing the influence of the social positions of inquirers on their theorising; and (ii) a greater stress on the importance of equality among inquirers.

(Anderson, 2020, §8)

Anderson cites Longino (2001) on the idea of a ‘community of inquiry’ as linked to certain ‘objective’ virtues only in certain cases.

In Longino’s account, a community of inquirers is objective if it: (1) offers public venues for the criticism of knowledge claims; (2) responds to criticisms by changing its theories according to (3) publicly recognized standards of evaluation; and (4) follows a norm of equality of intellectual authority among its members.

(Anderson, 2020, §8)

Longino’s account (or at least, the aspects mentioned earlier) does resemble Popper’s, in that these virtues are entirely intellectual and rational, and have to do mostly with the standards for critical evaluation of knowledge claims.

I want to urge that we broaden the scope of our conception of the community of inquiry much further.<sup>30</sup> Here, I will appeal to the question of how results are communicated within a community of inquiry. What allows for the recognition of a philosophical or scientific achievement, as such, in the first place? Popper focuses on the conditions for disagreement: for being able to criticise another scientist. I want to give scope, as well, to the conditions for

30. While I cannot argue fully for this conclusion here, this chapter will provide provisional reasons for broadening the scope in this way.

**recognition:** for the community of inquiry, or a subset of it, to be able to recognise a scientific or philosophical result as a result. Popper argues that recognition can be rationally reconstructed so that each move of theory development becomes logically necessary. But retrospective analysis effaces a key aspect: communication. Here, I don't mean just communication of results. Instead, I mean how results are received and evaluated by the community of inquiry.

It is implicit (and sometimes explicit) in Kuhn's account that, when a scientist makes an argument for a novel claim, that argument is made to a research community already initiated into the same paradigm in which the scientist is working. This obscures, to an extent, the problem of communication within a research community. Kuhn's work in *Structure* came at around the same time as a number of other accounts, many of which were much more sophisticated in their analyses of research communities.<sup>31</sup>

Recognition of an achievement involves what Michael Polanyi called 'tacit knowledge' (Polanyi, 2015/1958): being able to perform cognitive tasks, to put results in a context of similar work, to compare complex relationships with other complex relationships. Recognition requires evaluation.

What does it take to recognise a philosophical work as an achievement? At a minimum, it takes a community of inquiry that has the right kind of abilities, social contextual information, and tacit and explicit evaluative capacities to **recognise** the achievement as such. As mentioned earlier, Longino (2001) provides a detailed analysis of a community of this kind. In the case of philosophy, at least, it is precisely these abilities, in turn, that allow the community of inquiry *to develop the results further*.

For example, a Western philosopher may remark, 'This Buddhist philosopher might be first-rate but I don't have the training to evaluate her work'. True, someone trained primarily in the Western tradition might understand the work superficially, as a bare set of claims. But that person – or so the argument might go – is not able to recognise the work as an achievement in the field, and certainly cannot be among the *first* to recognise it as an achievement independently. Not because the work is flawed, but because the putative evaluator is not trained to evaluate it.

Note that the ability to evaluate is not restricted to the ability to understand the rational basis of the claims involved. Someone not trained in a tradition does not have the elaborate complex of social-contextual, evaluative knowledge that they acquired by being initiated into their own sub-field of philosophy, and which makes them 'experts' at assessment of work in their own sub-field.

A working hypothesis in this realm is that the conditions for being able to competently *evaluate* philosophical work, in practice, are the same – with

31. In this chapter, I have restrained myself, with some difficulty, from discussing work on rhetoric and philosophy, which is of course directly relevant to the question of communication. I will take up this question in future work.

some exceptions – as the conditions for *extending* and *developing* the work. The same evaluative capacities that allow the community of inquiry to recognise a philosophical achievement, and why it is interesting and novel, is the same set of capacities that allow us to develop the results further.

For instance, if a Western philosopher were to learn the basics of Buddhist metaphysics, by reading the relevant texts, studying with the relevant faculty and attending the appropriate conferences, eventually that person would be in a position to evaluate work in that field. But, arguably, she'd also be in a position to work in the field herself: to *extend* and to *develop* the philosophical positions there by finding gaps, significant problems and anomalies to resolve. The conditions of extension turn out, in practice, to be the conditions of criticism.

This is how we can respond to Popper's 'myth of the framework'. Because Popper sees disagreement as arising between frameworks, he makes the conditions for resolving that disagreement depend on opening all assumptions to criticism and confrontation in the process of rational discourse. But criticism *itself* requires a set of tacit evaluative capacities appropriate to a given approach. Without those abilities, there is no way to 'reason your way in' to whatever system or approach is at issue, or to evaluate the claims of any framework. But that ability is not restricted to a universalist picture of reason, but rather must include social and framework-dependent facts about how one is initiated into the community of inquiry in a particular field in the first place.

Popper's worry does stem from a common experience with people trained in different frameworks who make little or no effort to learn the ropes of the other system. Criticisms seem to come out of left field, to make no sense, because we are playing by different rules. But that is a very low level of discourse, engaged in by people who have made little effort to learn. We can do better.

If we think of learning a system less as learning a set of claims, and more as putting ourselves in the position of being able to *evaluate* those claims, we meet Popper's desideratum of allowing for critical inquiry, without needing to eliminate frameworks. By strengthening our account of the tacit evaluative capacities of the community of inquiry, as they develop over time, we can resolve Popper's framework worries. And in this way, we can allow for research communities that do not need canons or orthodoxies: not even the orthodoxy of 'rationality'.

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