

Changing your mind, closing your mind

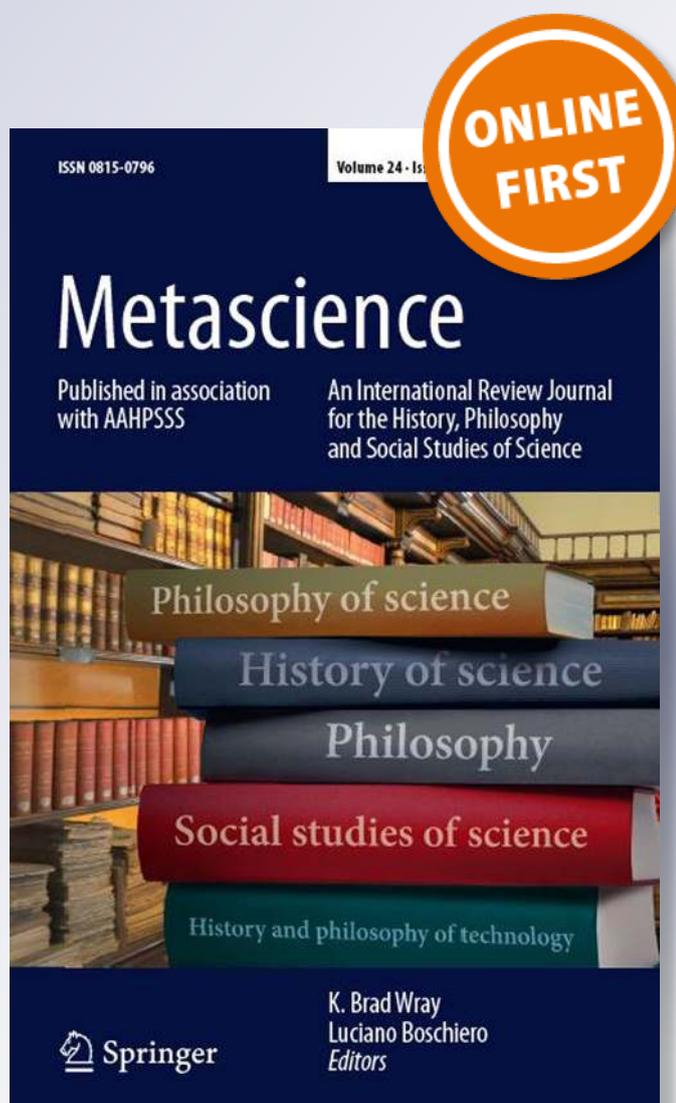
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Metascience

ISSN 0815-0796

Metascience

DOI 10.1007/s11016-018-0350-y



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Menachem Fisch: Creatively undecided: Towards a history and philosophy of scientific agency. Chicago: University of Chicago Press, 2017, 295pp, \$37.50 PB

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In *Creatively Undecided*, Menachem Fisch applies a model of rational, critical introspection first forwarded in Fisch and Benbaji (2011) to history and philosophy of scientific framework transitions. In the first half of the monograph, Fisch deftly brings developments in the philosophy of language and agency to bear on the nature of scientific change. The second half is an historical application of this model to George Peacock's work, especially to Peacock's, *A Treatise on Algebra* (1830). In this review, I will focus on the first half of the book. I anticipate that *Creatively Undecided* will prove to be a very important work in a stalled literature on the nature of scientific change. I also hope it will draw deserved attention to the novel account of rational introspection offered by Fisch and Benbaji (2011) in *The View from Within*.

Fisch's account is a hybrid of Popperian and Kuhnian ideas that are typically taken to stand in deep tension: (1) one can rationally modify one's commitments (i.e. beliefs, values, norms) only through critical introspection; (2) such modifications must proceed on the authority of one's own endorsed framework of commitments. The central philosophical question of the monograph is as follows: how can one rationally modify one's most foundational or central commitments—i.e. one's *framework principles*—through critical introspection? If rational self-criticism can proceed only on the authority of one's framework principles, what recourse does one have to rationally modify those very framework principles? None, it seems. Left to one's own devices, one has no framework for rationally appraising one's own framework principles. By definition, one has no principles more central or fundamental than one's framework principles, hence the classic tension between the Popperian and Kuhnian models of scientific framework transitions. Popperianism is of no help here. Rational introspection of framework principles cannot get off the ground without a framework to appeal to. Fisch also finds wanting certain post-

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Kuhn models according to which one can modify one's framework principles only arationally, either through gestalt-like conversions or as mere epiphenomena on the real changes that occur at the collective level. Fisch departs from Popperian individualism in the work of Korsgaard, Frankfurt, and Taylor. He also rejects the arationalism and collectivism of certain post-Kuhnian schools of thought, particularly in the work of Sellars, Walzer, Brandom, and Friedman.

Fisch's rejection of collectivist notions of rationality seems grounded in his distaste for outright anti-individualism about rationality. Surely, there is more to individual rational agency than mere intra-personal epiphenomenal reporting. I, and many others, share this sentiment. But I wish to buttress it with a more direct argument. Just like intra-personal accounts of rational self-criticism, collectivist models of rationality have trouble making sense of how framework principles can be modified rationally. Collectivists can contend that framework principles can be rationally modified if rationality is understood to be an irreducibly group-level, communal, or cultural phenomenon, with intra-personal 'rationality' being mere internal reports of group-level, communal, or cultural developments. This means framework principles belong primarily to groups, communities, and cultures and derivatively to individual members. However, this move only pushes the problem back: how can a group, community, or culture rationally modify its framework principles through group-level, communal, or cultural introspection? Left to its own devices, a group, community, or culture has no framework for rationally appraising its own framework principles. By definition, it has no principles more central or fundamental than its framework principles. The problem is the same as that faced by the Popperians.

The central philosophical insight of *Creatively Undecided*, and of Fisch and Benbaji (2011), is that an individual's rationality—or, at least maintaining the epistemic health of one's framework principles—requires external epistemically salient inputs. On Fisch's model, a person can become sufficiently ambivalent towards one of her framework principles through dialogue with a trusted critic of that principle:

Subjecting ourselves to the normative appraisal of fellow reasoners, is to apply our rationality to itself; as it were, to employ others in reflecting critically upon our own attempts at critical reflection, acknowledging our own fallibility by engaging their help. This is human rationality at its utmost, at the very point in which critical reflection comes full circle and critically engages itself.
(30)

This way, the targeted framework principle can be dislodged from one's other framework principles, bringing it under the purview of one's framework. From here, the Popperian model of rational, critical introspection no longer faces the problem outlined above. Popperian introspection can proceed after inter-personal instigation. The crucial point is that a trusted critic must kick-start the process. When it comes to critical introspection of one's own framework principles, a trusted critic makes Popperian rational agency possible. This is Fisch's Hegelian middle ground between Popperian and post-Kuhnian options.

I contend that the above model applies not just to individual rationality but also to that of groups, communities, and cultures. Regardless of which sort of subject we are talking about—individual, group, community, or culture—the framework dependency of rational, critical introspection means no subject can rationally modify their framework principles autonomously. Thus, as I argued, collectivism runs into the same problem facing Popperianism. If this is right, Fisch's model is not merely superior to the collectivist model, as Fisch contends. It is the *only* model that allows a subject to be *rationally* self-critical of their framework principles.

But what interests me most about Fisch's model is a corollary Fisch does not explore. I believe Fisch's model lends itself directly to an account of deep epistemic failure or *closed-mindedness*. The claim at the bottom of Fisch's model is that maintaining the epistemic health of one's framework principles requires standing in relationships of trust to critics of one's framework principles. When one fails to stand in a relationship of trust to anyone whose criticism could 'ambivilate' one towards a given framework principle of theirs, that framework principle becomes immune to rational scrutiny. Such an individual has become closed-minded towards that framework principle. That is, that principle is not accessible to that individual's rational capacities. It can be modified only arationally.

Accounts of group-level closed-mindedness and group polarization are quite straightforward from here. An individual who is closed-minded with respect to a given framework principle is closed-minded in virtue of associating strictly with like-minded individuals. Such a group is defined by the common, closed-off position of its membership. As I claimed above, if left to its own devices, such a group has no framework for rationally appraising its position. This is group-level closed-mindedness: a position endorsed by a group that the group cannot rationally modify or even consider modifying. Group polarization occurs when groups endorsing opposing positions fail to engage in trusted, critical inter-group dialogue. These groups have become closed-minded in opposing directions. They are truly polarized. For individuals and for groups, relationships of trust across ideological lines are necessary for avoiding or combating closed-mindedness. This ensures no ideology is taken to its extreme without trusted scrutiny.

In sum, *Creatively Undecided* is an innovative work that can breathe new life into the literature concerned with the nature of scientific change. It also has promising applications elsewhere. For example, I believe the above model of closed-mindedness that falls out of Fisch's account has much to offer to the literature concerned with the epistemic utility of civil, oppositional discourse.

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