4
On the Nature and Norms of Acceptance and Belief

4.1 Another perspective on scientific attitudes

Constructive empiricism – as articulated and defended by van Fraassen – is intended as but a component of a broader picture of our epistemic lives; it is a conservative assessment of the aim of science motivated not so much by scepticism at our ability to acquire knowledge about the unobservable as it is by a particular orientation towards explanation, a visceral disinclination for speculative metaphysics and a permissive conception of rationality that demands no greater license for a philosophical position than its logical consistency. And initially, this voluntarist framework appeared to provide the ideal habitat for van Fraassen’s empiricism. The most pressing objection facing a position that claims that the acceptance of a scientific theory involves as belief only that it is empirically adequate is that, since there appears to be no principled epistemological distinction between what our theories say about the very large (but extraordinarily distant) and what they say about the very small (but routinely detected), any justification we may have for believing a theory to be empirically adequate will also be justification for believing that theory to be true. But the constructive empiricist is not offering us an argument concerning the warrant of our various scientific beliefs – he is offering us an alternative conception of the scientific enterprise against a background epistemological framework that rejects all questions of justification as ultimately an expression of taste.

We have however seen two problems with this picture. The first is that epistemic voluntarism – essentially carte blanche to avoid answering difficult epistemological questions – is far from being an intuitive philosophical position, and van Fraassen’s arguments in its support leave a lot
to be desired. The doxastic constraint of diachronic probabilistic coherence certainly complements the voluntaristic perspective; but since diachronic coherence is only compelling for those who already endorse a voluntaristic attitude towards epistemic judgements, it hardly constitutes an independently compelling case for van Fraassen’s minimalist conception of rationality. With respect to our inferential practices, van Fraassen does raise pertinent sceptical difficulties concerning our methods of ampliative inference; yet these arguments are too corrosive to motivate epistemic voluntarism, since in order to undermine those rule-based practices that are his target, van Fraassen must invoke a sufficiently radical scepticism that leaves his inferentially permissive alternative equally groundless. And while the prospect of a stance-based conception of empiricism is an interesting one, van Fraassen has yet to show any conclusive advantage it may have over its doctrinal ancestor, or to provide sufficient detail to show how it doesn’t simply collapse into full-blown relativism.

Secondly, and more importantly, we have also seen how epistemic voluntarism is utterly unable to resolve those problems concerning the internal coherence of constructive empiricism. The basic difficulty is that in order to maintain his crucial distinction between the observable and the unobservable (as well as maintaining a philosophically satisfying account of modality and mathematics), the constructive empiricist appears to be committed to some of those very beliefs about unobservable phenomena (nomological possibility, the existence of abstract mathematical objects) that such an account was meant to render illegitimate. The general response to this problem advocated by van Fraassen has been to defend an impoverished – but internally coherent – notion of observability (modality, mathematics), and to try and make up the doxastic deficit with a series of arbitrary stipulations that are justified only insofar as they are to be articulated within the context of a voluntaristic framework in which substantial epistemological questions are moot. Unfortunately, however, the problem of internal coherence is more pervasive than van Fraassen gives it credit: since even the notion of logical consistency is one for which the constructive empiricist struggles to provide an internally coherent account, it is clearly unacceptable to appeal to an epistemological framework that presupposes such a notion (even if it presupposes very little else) in order to justify any attempt to salvage one’s position. Epistemic voluntarism cannot therefore rectify the constructive empiricist’s account of abstract mathematical objects; since this account underlies his views on nomological possibility, epistemic voluntarism cannot therefore rectify the constructive empiricist’s