2 Epistemic Voluntarism: Rationality, Inference and Empiricism

2.1 Motivating voluntarism

The work of Chapter 1 was to bring to the fore the importance of van Fraassen’s broader epistemological framework in understanding his articulation and defence of constructive empiricism. To put the point as succinctly as possible, since constructive empiricism is merely a view about the aim of science – rather than a substantive thesis about its epistemological limits – it is consistent with being a constructive empiricist to recognise any possible position with respect to the success of science in giving us knowledge about the physical world: that it aims for empirical adequacy does not in itself tell us to what extent scientific inquiry realises, falls short of or even exceeds this goal. Consequently, any argument that attempts to discredit constructive empiricism on the grounds that we have good reasons to believe that our contemporary scientific theories tell us a great deal beyond the empirically adequate simply fails to engage with the position.

That constructive empiricism must be understood as this arguably more modest epistemological proposal (as opposed to a rigorously selective scepticism that argues that our scientific theories produce truths only insofar as they refer to observable phenomena) follows from van Fraassen’s views on the nature of epistemology in general. According to van Fraassen, rationality is a matter of permission rather than obligation, such that one can only really criticise a course of cognitive action if it is guaranteed to sabotage its own chances of success. This allows us to generalise the point made above: it can be no criticism of constructive empiricism that our scientific inquiry outperforms mere empirical adequacy (and note that we have yet even to see a satisfactory argument to this effect), since the constructive empiricist is not committed
to any view concerning the success of science; and the reason why the constructive empiricist abjures any discussion concerning the success of science is that, from a voluntarist perspective, seeking to maximise truth is no better and no worse than seeking to minimise error. To put the point even more simply, if the only standards of rationality for the epistemic voluntarist is to avoid self-contradiction, then there is no sense in which forming true beliefs about the unobservable realm is any more of a cognitive achievement than refusing to speculate about the matter altogether, and thus no sense in which the various inferential practices employed by the scientific realist to this effect could possibly demand our universal assent. Scientific realists have one set of epistemic preferences, insofar as they pursue a wide range of beliefs formed on the basis of various rationally compelling ampliative inferences; they seek to offer ever deeper levels of explanation for the observable phenomena which they encounter, and often proceed through the postulation of ever more unobservable structure. Constructive empiricists have another set of epistemic preferences, insofar as they pursue a more limited range of beliefs formed on the basis of various rationally permissible ampliative inferences; they reject certain explanatory questions as requiring an answer (although of course one could still choose to answer them), and reject certain explanatory strategies as being even able to provide such answers in the first place. Crucially though, there are no objective criteria for adjudicating between these conflicting preferences, and any argument one way or the other will serve only to express the disputant’s own epistemological idiosyncrasies.

It is therefore important to ask what reasons there are for adopting epistemic voluntarism. Although the position has developed gradually over the course of his wide-ranging and voluminous writings, it is possible to distinguish three distinct lines of thought that together constitute van Fraassen’s motivation for his more permissive conception of rationality. The first is the most technical, and concerns the probabilistic coherence of an agent’s beliefs. For while van Fraassen argues that logical consistency and probabilistic coherence pretty much exhaust the constraints upon an agent’s rationality, he also maintains that probabilistic coherence is a more substantial constraint than it is usually given credit. More specifically, while most philosophers would accept that an agent’s beliefs should be synchronically coherent – that for any particular moment of time, an agent’s total distribution of credences at that time should satisfy the probability calculus – van Fraassen argues that in addition, an agent’s beliefs should also be diachronically coherent – that for any particular moment of time, an agent’s total distribution of