CHAPTER 7

The Incommensurability of Styles of Reasoning: The Case of the Existence of Theoretical Entities

7.1 Introduction

In the previous chapter, I have argued that an important issue underlies the styles of reasoning project. I have called it 'the incommensurability issue': the question as to whether there exists a universal and atemporal justification for the claims made by a community that adopts a particular style of reasoning. In this chapter, I shall present a case study in which a claim made in the laboratory style of reasoning has no universal and atemporal justification. As I shall explain, Hacking *justifies* his belief that unobservable entities exist on the ground that they can be *regularly* manipulated by experimenters in order to find out and produce various phenomena (experimental realism); he also maintains that no belief that our theories are true is required in order to be realist about unobservable entities. I shall argue that his justification is *relative* to the laboratory style of reasoning. In particular, my point will be that, *if Hacking's characterization of styles of reasoning is correct*, his justification strategy based on experimental realism is no viable option for a member of a community that does not adopt the laboratory style of reasoning—the existence of a particle would be justified in the laboratory style of reasoning and unjustified outside it. Ultimately, from this case study I shall draw the important conclusion that the styles of reasoning project implies epistemic relativism.

Uncorrected Proof

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