## PART II

## Inner discipline

The history of inhibition is a dialogue between the desire to exercise moral control and the description of natural control... Scientific theory, to be intelligible, had to show how the workings of nature made possible normative controlling actions in the lives of human subjects. (Roger Smith 1992: 10, 231)

To flee from memory
Had we the Wings
Many would fly
Inured to slower things
Birds with surprise
Would scan the cowering Van
Of men escaping
From the mind of man

(Emily Dickinson (c. 1872), 1968: 56)

. . . we can assume a complete dominance of the brain by the self . . . (Sir John Eccles 1994: 168)

## Introduction

It is sometimes difficult to see how 'sciences of mind' could have got off the ground in the wake of the 'scientific revolution'. Dualism in theology and metaphysics required the cordoning off of will from science (Burtt 1932: 318–19; Young 1970: 1–3; Daston 1982): along methodological divisions driven by the programmatic rhetoric of supernaturalist mechanism, philosophy took up abstract concerns about understanding, soul, and reason, while physics and biology studied inert bodies. But, of course, many phenomena between metaphysics and physiology were still studied, in joint philosophical and physiological theorising of memory, dreams, imagination, perception, and the passions.

Part II follows the linked fates of animal spirits and of neurophilosophical models of memory through the century after Descartes. Theories of memory as the brain's folding of the past excited cultural concern at psychophysiological fluidity and loss of control. The seductions of animal spirits theory, particularly in England, often lay outside the strictly physiological, in the attractive fluidity of the anxious discourses which medical psychology employed around it (compare Rousseau 1989: 38–44). Chapters 4, 6, 8, and 10 embed animal spirits in early modern natural philosophy, and develop the metaphysics of memory which they supported. I set up mysteries about why the fleeting hypothetical entities survived well into the Enlightenment despite experimental evidence against them, and about why they did eventually disappear in the eighteenth century before the development of a coherent replacement theory of neural transmission.

The other strand of part II, in the longer odd-numbered chapters, tentatively responds to these puzzles by showing how animal spirits and memory were, especially in England, implicated in larger cultural and philosophical debates about order and confusion in cognition; about the proper handling of the past; and about control of one's own physiology, the learned ability of self or soul to impose its ruling will on swirling animal spirits. Chapter 5 examines four English critics of the Cartesian approach. In chapter 7, I connect physiological theories of memory with early modern views about the continuity of personal identity over time. Chapter 9 looks at stratagems of evasion devised to ward off the seductions of the transient spirits, with their unwholesome associations.

This is still, in a sense, a story of disenchantment, another nostalgic fable of the disappearance of spirits. But it differs from other grand narratives of shifts from sympathy and resemblance to representation and correspondence, from

fluids to solids, from earthy organs to bloodless machines, or from timely local wisdom to context-free and universalisable knowledge. Crudely, I ascribe the narrowing and immobilising of presumed physiological forces not to seventeenth-century Cartesian mechanism but to eighteenth-century moralism, not to scientific authority but to changing social formations of personal identity. The soul imprisons the body not on publication of the Meditations but as control of truth in memory assumes deeper ethical urgency: the dominance of the brain by the self becomes not a slow immersion in embodiment, as in the Cartesian application of intelligence to the reflexes, but a social responsibility.

The historiographic picture I question is exemplified in two recent discussions of mechanism and the body. A medical historian, carefully delineating relations between late seventeenth-century theory and practice, notes how hard it was to reduce 'the complexity and apparent vitality of the body' to analogy or identity with 'the crude machines of the time' (Wear 1995: 359). He comments on the introduction of a concept of irritability in biological matter by an English physiologist, Francis Glisson (Wear 1995: 344): 'This deeply felt need to prevent the world from being reduced to complete lifelessness indicates the anxieties that might be aroused by too rigid an application of the mechanical philosophy.' Jonathan Sawday, in a marvellous multidisciplinary history of 'vivid dreams of punishment and partition' in Renaissance 'cultures of dissection', similarly argues that the triumph of 'the colder eye of science' silenced the body, newly 'divested of its latent capriciousness' (1995: 53, 22, 37; Sutton 1996). Epistemological ruptures as 'a world of affinity was collapsing' left the fearful self at odds with dead nature, for everything was 'falling into a collapsed and fragmentary rubble of displaced body parts and Cartesian doubt' (Sawday 1995: 234, 128).

But in fact the mechanists' world was not lifeless, and Cartesian bodies and brains were still capricious. As Catherine Wilson argues, 'there is no sudden impoverishment' in corpuscularian natural philosophy, and rhetoric of detachment and mastery long coexisted with receptive engagement with nature and living bodies (1995: 21–2, 38). Anxiety comes elsewhere, in conflict between the fragile control of memory and body which both old theory and phenomenology suggested, and more locally imposed norms of voluntary cognitive propriety.