

PART III

**'The phantasmal chaos of association'**

These Subjects are so much involved in each other, that it is difficult, or even impossible, to begin any-where upon clear Ground . . .

(David Hartley, *OM v, I. introduction*)

Prompting someone to remember their past is akin to forcing them to sneeze at gun-point. The results are fated to disappoint, for true remembering, like sneezing, is not something one can do at will.

(Alain de Botton 1995: 89)

## Introduction

This has been a long haul through the history of science, through the animal spirits' ragged traces. Ploughing through links between memory and self, widely construed, in early modern neurophilosophy revealed threats which the physiological nature of memory, especially in distributed models, posed to strong forensic conceptions of the person and to allied notions of rationality, autonomy, control, and moral responsibility. Now I begin applying patterns discerned in history to current issues, contrasting criticisms of new connectionist models of memory and mind with attacks on earlier distributed models.

Chapter 11 sketches Jerry Fodor's objections to connectionism, comparing his concern with cognitive discipline in rejecting the plasticity of mind with earlier critiques of associationism. Bergson and recent humanist critics like Stuart Hampshire assume that classical associationism required separate mental 'atoms': in chapter 12 I question this, and argue that dropping atomism to accommodate creativity or complex reconstruction in remembering means rejecting only localist versions of associationism. To support this, chapter 13 gives a detailed account of David Hartley's distributed model, which not only develops the key notions of superposition and causal holism, but applies the basic memory theory to a wide range of psychological phenomena. Criticisms of Hartley by Reid and Coleridge (chapter 14) impose extreme requirements of unity and order on cognitive theory. Insisting on a natural order in cognition, the critics reassert the primacy of the unified self acting freely on and dominating what Coleridge called 'the phantasmal chaos of association'.

Here, then, we leave the animal spirits, but remember their fluid metaphors. The coupling of spirits theory with distributed models of memory saw the rejection of fleeting spirits by moral physiologists who sought more stable continuity of self over time. This shows just how unusual Hartley was: explicitly seeking, not to eliminate, but to subsume animal spirits in his vibrational model of associative memory, he stands out from a period when philosophies of mind, increasingly moralising and transcendentalist, drew further away from neurophysiology.<sup>1</sup>

1 My historical choice is again very limited. Different lessons might be learned, for instance, from Kant's complaint that associationism simply threw memories together in accidental heaps, and from the subsequent history of associationism in Germany: but that story is perhaps better known (Hatfield 1990). Kant thought that association allowed only the barren summation of memories, unable to resonate productively as human memory does (Casey 1987: 367–8).

In one sense, part III describes a historical rerun: just as the Cartesian distributed model was rejected by moralising critics, so Hartley's broader development of it received even more reactionary short shrift. But it also reveals a significant and puzzling difference between old and new attitudes to mechanism and associationism. Early modern critics from Glanvill to Coleridge saw distributed models as too chaotic, their unstructured traces too prone to interference to account for the disciplined preservation of past events in proper order. But modern complaints, from perspectives as different as Fodor's and Hampshire's, take associationism to be too passively mechanistic to catch the productivity and generativity of mental life, too reliant on stored items dully interacting by principles of seventeenth-century physics.

How can distributed models be both too active and too passive, both prone to jumbling confusions and devoid of creativity, with tendencies to infidelity and to tedium? Analysing the historical sweep of anti-associationist rhetoric reveals deeper motivations: the two forms of hostility are not as distinct as they seem. Both sets of critics require the involvement of an active, autonomous, controlling self in cognitive processes. Associationism, in contrast (whether construed as boring or excessively confused), provides no clear role for an executive self: there is no principled division between memories and their owner, between storage and processing.

The fact that Hartley, like Descartes, believed in a non-physical soul in no way assuaged his critics. Like Descartes, Hartley willingly formed working theories in natural philosophy to answer the cognitive appearances without the insurance of that soul's direct controlling involvement. Thus, as his opponents intuited, he opened up the spectral possibility, disastrous for the moral order, that the bare immanent results of history in different bodies, the merely natural dynamics of experience which sieve through the brain, might displace reason and leave society's norms without a common grip across individuals.

This sets the explanatory agenda. Rationalists and moralists insist on external intervention in the linking and shuffling of ideas, impressed by hard, logical, brittle cognitive processes, which we can sometimes feel as effort in conscious calculation. Associationists privilege soft, defeasible, fluid transitions which are less accessible to consciousness (Smolensky 1987/1991), and must show how the mere statistical and causal play of a haphazard world on the mind can produce the faint degree of order that remembering sometimes retains. Even voluntary recall and inventive reminiscence are at stake: if memory is reconstructive rather than reproductive, it is always 'creative', in that pieces of the past do not survive intact but are always transformed, lost, reused.

Cultural assumptions enter cognitive theory here, then, in at least two ways. Changing norms or wishes about control of the personal past affect the explananda for memory theory: and views of personal identity, of the social

functions of the self, impose limits on the extent of association. It is not necessary to embrace his dichotomy to sympathise with Deleuze's point (1991: ix), in interpreting Hume, that association was 'a practice of cultural and conventional formations . . . rather than a theory of the human mind': this allows distance, in turn, from the logicist dichotomy in cognitive science between 'true' thinking, modelled on inference and serial reasoning, and 'mere' mental causation figured as inexplicable babble (Fodor 1985a: 12), which itself can be historically situated and queried. The privileged explananda are often intricately linked with each other. The assumptions of common sense so precious to Reid and to Fodor, in their different ways, include not only requirements on the accuracy of memory and the rationality of belief fixation, but also views on free will, unity and continuity of self, responsibility, agency, and autonomy.

Yet attentiveness to culture sanctions no irrationalist anti-scientism. There cannot be a 'hard' set of mature sciences of mind and brain without some concepts evolving with and answering to cultural demands; and it is not as if society runs along leaving brains unchanged. Wriggling across the continuous levels of nature and culture is not interesting only with lab coats off: it is requisite method for better science. This is not to renounce old dreams of generality: rather, with complexity and mechanism back together, it is a plea for refusing to close out individual difference, the background factors which make a single case special even when it does fall, roughly, under general *ceteris paribus* laws. Never are all other things equal.