

Developmental science. Edited by Robert B. Cairns, Glen H. Elder Jr & Elizabeth Jane Costello. Cambridge: Cambridge University Press. 1996. Pp. 291. Cased £30.00. ISBN 0 521 49585 7.

Developmental science is, to me at least, a new term. It seems to include 'developmental biology, developmental psychology, physiology, neuropsychology, social psychology, sociology and anthropology' (p.30), and, reading more closely, history. Like Molière's Monsieur Jordain who discovered he had been speaking prose all his life, many researchers will find they have been developmental scientists *avant la lettre*.

This book originates from the meetings of a group of scientists who in 1987 formed the Carolina Consortium on Human Development to reconcile differences and discover commonalities. The resulting book is clearly intended as the manifesto for a revolution in thinking about development. Is there, to paraphrase another famous manifesto, 'A spectre hanging over development', and will this book be raised in a thousand hands on their way to the intellectual barricades?

True to form, the book begins with a declaration (well actually a 'collaborative statement'). Despite being only 25 lines long it is both 'tedious and brief', using five words where one will do in a literary style more associated with some Central Committee of a Local ComIntern than with the precision and elegance of Marx and Engels. Thus, 'Time and timing are central to this perspective'; can this be other than trivially true, for how could development *not* find time and timing important? Or how about, 'We believe that recognizing the complexity of development is the first step towards understanding its coherence and simplicity'? Without the elegance of a Zen coan, this is equally gnomic and unfathomable. Is it a serious scientific claim or merely jumping on the passing bandwagon of complexity theory, chaos, fractals, and the like, concepts which predictably are invoked 20 to 30 pages later? Whatever else they do, complexity and chaos theories hardly say simplicity is likely to emerge, and if anything they set limits on the knowability and understanding of many complex systems. The authors should have reflected on the Buddhist comparison of the unenlightened mind to a pool of muddy water—clarity comes from being left alone not further stirring.

What then is the book's real message? My reading (and, I must be honest, it was not *easy* reading; 'wading through molasses' is the sort of phrase that comes to mind) is roughly as follows. Minds are extremely interesting things, and they do not come into the world fully formed but necessarily they develop through infancy, childhood and adult life. Understanding this process is important and intellectually very challenging. Minds are, however, inextricably intertwined with brains, which are complicated, being the stuff of biology and of biochemistry and even of physics, all of which may constrain how minds work, and we would be foolish to forget that. Neither do brains develop in social isolation. The raw material which brains process, of ideas, images, sounds, feelings, or whatever, is produced principally, or at least most interestingly, by other brains which inhabit parents, siblings, teachers, friends, lovers, enemies, etc. and this might affect how minds develop. Other brains have also created a rich, full material world of artefacts and toxins, of excitements, stresses and dangers. Language, tools, myths and modes of survival are mostly acquired from parents and predecessors, their contingent histories differing dramatically in different geographies. So woe betide anyone who would dream about a cognitive science which is not embedded at the micro-level in the biology of brains, neurones, genes and chemistry, and at the macro-level in social relations, the family, school, society, history and ecology.

And that, I think, is pretty well all it says. It takes longer, and there are more polysyllabic neologisms, such as 'microsystem' 'mesosystem', 'exosystem' and 'macrosystem' 'environtype', and 'co-constructionist perspective', but there is precious little in the way of empirical *evidence* to show practical scientists how to progress using these verbal felicities. My suspicion is that their real role in North Carolina was diplomatic, preventing the participants from falling out, perhaps ultimately because none was sure what was meant. And it didn't stop them saying some pretty dumb things. Is there any non-trivial way in which a 'web of social ties . . . relate[s] all lives to each other' (p.52); would our paths, O gentle reader, have intersected in any detectable way if I had not written this and you had not read it? And what does it mean to say there is 'no practical limit on the phenotypical variability that may result from exposure to all possible environments' (p.82)? Could I have developed those wings I had so much wanted if only the environment had been different?

In a chapter portentously entitled, 'Toward a unified framework', the authors are forced to admit even to themselves that 'some features of this proposition are hardly newsworthy' (p.15). It is the epitaph for the

book as a whole. I predict that the only bit to survive will be the title, and that in five years time we will all be 'developmental scientists'. It is a meme whose time has come.

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