

into popular mode. Even in their discussion of the animal behavior literature they are less critical of simplistic conclusions than someone closer to the research front would be, for example the recent popular book, *Wild Minds: What animals really think*, by the neuroscientist and psychologist Mark Hauser. This gets more problematic the closer they come to the human literature, with its reification of 'homosexuality' or 'alcoholism' as if these were relatively unproblematic categories. Well-meaning reform by nomenclature, for example when they replace 'sex' by 'gender' and 'intelligence' by 'mental function', doesn't quite solve the problem.

A similar problem arises in the treatment of that old 'gene versus environment' chestnut. Although the authors regularly refer to the role of 'the environment' as a counter to an overemphasis on gene talk, they don't try to unpick the multiple meanings and levels embraced within that portmanteau term; instead it retains its monolithic character (for contrast, see how the neuropsychiatrist Nancy Andreasen, in her book, *Brave New Brain*, handles the term). Surely, at a point in the history of our science when the very term 'gene' decomposes into varying strands of differentially spliced and edited DNA, it is time to distinguish between cellular and organismic environments, diet, personal, historical, class and gender developmental histories. Even the idea of 'shared versus non-shared' environment, such a prominent feature of behaviour genetics discourse, makes the manifestly over-simple assumption that the home environment is the same for each of two sibs, an assumption that a little self inspection of all of our personal family histories should serve to dismiss.

Are we Hardwired? finishes with a robust defence of 'free will,' available to us, according to the authors, by courtesy of our complex brains and the chaotic, non-deterministic nature of development. There follow a couple of appendices, one on genetic methods, and the other a brief history of the excesses of past eugenic thinking and its implications for the future uses of genetic knowledge. Both the authors' conscious social liberalism and the attempt to spring the determinist gene/environment trap are welcome, and it seems churlish to quibble that their discussions are hardly likely to satisfy either a historian or a philosopher. But those of us, and I do not exclude myself, cannot help it if our proper ambitions to explore the implications of our science lay us open to such critics.

References

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