

Preface

Just after I graduated, I was struck by a sudden urge to share what I had learned during my chemistry degree. Inspiration came to me in the form of a story about atoms. I fancied that carbon would be like a mafia godfather figure, having his fingers in so many pies. In the burgeoning narrative, silicon became its arch rival—an element in the same group with the capacity to form the same number of bonds, yet unable to forge organic compounds. The element's seething jealousy would drive his bid to reign supreme in the silicon chips of the artificially intelligent machines that would overthrow their carbon-based oppressors.

As original as these ideas seemed, they made dreadful fiction. Just awful. The various drafts I pushed on my friends were met with polite expressions of utter bewilderment. After much soul searching, it finally occurred to me that a non-fictional text might be the best way to share my love of science and that was how this book came into existence.

But what does this story really explain about my actions? I wrote the book because I love writing and because I love science, but this admission only presupposes more fundamental questions. Why do I love writing and science? Many of the questions considered in this book are relevant to the point of inquiry: does my urge to create have something to do with the number of receptors in a region of my brain linked with creativity? Were the genes for that variety of receptor expressed

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more or less frequently because of other genes I inherited? Perhaps a mutated gene I inherited. Or did my upbringing cause my body to express a normal gene more or less frequently? Finally, was the book's authorship a meaningful expression of human consciousness or does it all boil down to a status-chasing exercise in securing passage for my genes in future generations?

While I have been writing this book, a lot of people have complained that human nature is much too complex to boil down to chemistry. Physicists and biologists might say this because the book draws on their disciplines, as well as that of neuroscience and others. But what the people meant was that surely culture also influences our behaviour. Some people also admitted that they do not like the idea that our motivations arise from the machinations of molecular self-replicators. As such, I think it is worth saying something about the book's title. Is it saying *all* of our behaviour is explicable in terms of chemistry and this book explains *all* the chemistry involved, or is it saying *some* of our behaviour is explicable in terms of chemistry and this book explains all that chemistry? The answer to this question is for you to decide.

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