When I first came across Chomsky’s scientific work, my initial reactions resembled those of an anthropologist attempting to fathom the beliefs of a previously unknown tribe. For anyone in that position, the first rule is to put aside one’s own cultural prejudices and assumptions in order to avoid dismissing every strange belief as incomprehensible nonsense. The doctrines encountered may seem absurd, but there are always compelling reasons why those particular doctrines are the ones people adhere to. The task of the anthropologist is to delve into the local context, history, culture and politics of the people under study – in the hope that this may shed light on the logic of those strange ideas.

The question of language and its origins is central to an understanding of what it means to be human. Although I immediately warmed to Chomsky’s courageous politics, his assumptions about language just baffled me. I was ready to admit my own limitations here: I had no training in theoretical linguistics. But I suspected that the gap between us was also deeply philosophical and cultural. It soon became clear that the tribe whose culture I needed to study was the Pentagon-funded war science community clustered around Chomsky in the formative period of his career. I have no interest in conspiracy theories. Not for a moment did I believe that the Pentagon’s initial funding of Chomsky’s ground-breaking work cast doubt on that work’s validity or implied some kind of master plan. It was also clear that nothing that Chomsky ever produced made the slightest practical contribution to American military power. Yet from the outset I suspected that Chomsky’s ‘revolution in linguistics’ would make sense to me only if I could fathom the time and place in which it all occurred. That would mean reconstructing the intellectual climate prevailing in the United States
immediately after the Second World War, when electronic computers, still in their infancy, were widely seen as the stuff of science-fiction fantasy.

When I began looking into all this, it emerged that the Pentagon’s scientists at this time were in an almost euphoric state, fresh from victory in the recent war, conscious of the potential of nuclear weaponry and imagining that they held ultimate power in their hands. Among the most heady of their dreams was the vision of a universal language to which they held the key.

As early as 1946, Warren Weaver had the idea of reducing all the world’s languages to ‘basic elements’ which a computer could handle. By 1955, Weaver was expressing the hope that a suitably designed machine might be able to use these elements to accurately translate from any one of the world’s tongues into any other. The boldest route to the heart of things, in Weaver’s view, was to delve right ‘down to the common base of human communication’ to discover whether a single computer code really did lie at the basis of the world’s superficially different tongues. Although Chomsky vehemently denies any connection between Weaver’s ambitious project and his own, the ferment around these ideas appears with hindsight to have anticipated the appeal of both ‘deep structure’ and ‘Universal Grammar’.

In championing his project, Weaver reminded his audience of its Old Testament counterpart, the Tower of Babel. Humanity did originally speak with one voice, but so great was our consequent cooperative potential that God feared we might reach up to heaven, asserting ourselves as his equal. To keep us in our place, he confounded humanity by confusing our tongues, rendering us incomprehensible to one another.

Unbelievable as it may nowadays sound, American computer scientists in the late 1950s really were seized by the dream of restoring to humanity its lost common tongue. They would do this by designing and constructing a machine equipped with the underlying code of all the world’s languages, instantly and automatically translating from one to the other. The Pentagon pumped vast sums into the proposed ‘New Tower’.

The theme of mythical towers appears throughout this book. Prefiguring the Pentagon’s new tower was a still more ambitious plan hatched by Russia’s revolutionary artists and poets – who seriously aimed to build a vast tower reaching to the sky. Here, too, there was support from the state. Building in glass and steel, the young Soviet government planned to construct ‘Tatlin’s Tower’ as its ‘Monument to the Third International’. The genius behind this symbol of revolutionary internationalism and hopes for linguistic unity was the Russian poet Velimir Khlebnikov. Khlebnikov’s name is not usually linked with Chomsky, but for me it was a sudden shaft of light that
Khlebnikov was the primary inspiration behind Roman Jakobson, the renowned linguist whose insights about a universal phonetic alphabet led directly to Chomsky’s ideas about a Universal Grammar.

The irony here is that while these Russians were anti-war anarchists and Bolshevik sympathizers, Chomsky found himself immersed in a political atmosphere of paranoid hostility to ‘world communism’ amid feverish attempts to master the theory of nuclear war. Against this background, Chomsky stood out as the leading figure in the Pentagon-funded cognitive revolution in linguistics, psychology and philosophy, while at the same time making himself heard politically as one of the few voices of sanity in a world gone mad. The more I researched this period, the more I was struck by the disconnect between Chomsky’s politics – which seemed passionate and courageous – and his concept of science, which seemed the reverse on every count. It soon became clear to me that the scientist in Chomsky excluded social topics with the same scrupulous rigour that the activist in him excluded any reliance on science. This disastrous way of fragmenting human knowledge made no sense to me at all.

The following pages are the result of my efforts to take a step back and investigate what possible circumstances could have driven Chomsky to that damaging position. It was not long before I came up with a startlingly simple theory. Chomsky was working in a weapons research laboratory. As the Vietnam War intensified, his political conscience told him that criminal activities were under way. In order to speak out freely, he needed to preserve his complete autonomy with respect to anything he was doing in that lab. He could only do this by denying that his linguistic science had the slightest political or social relevance. On this level, too, his thinking – quite separate from his politics – was declared to be radically autonomous, being purely formal, purely abstract, purely neutral. In this way, Chomsky played a major role in strengthening the Western world’s habit of detaching social issues from the remit of science. My aim here is to explain where this split came from so as to pick up the threads where Chomsky and his colleagues broke them off – restoring those essential connections between social action and science, practice and theory, body and mind.

Although most people know Chomsky either for his activism or for his linguistic theories, his output ranges far outside these subjects to include anarchist and Marxist politics, psychology, philosophy and recent developments in evolutionary theory. Consequently, this book has had to be just as wide-ranging, covering such topics as the history of computing, art movements during the Russian Revolution, McCarthyite US politics in the 1950s, student unrest in the 1960s, and gender relations among our evolutionary
ancestors. I ask my readers to accompany me on this intellectual roller-coaster, hoping that by the end it will become clear that the journey was necessary in order to get a handle on the extraordinary influence of Chomsky’s ideas.

So many people have helped me with this book. I sent Noam Chomsky the uncorrected proofs, mentioning that I was concerned lest my criticisms of his linguistic ideas might provide ammunition for the political right. Chomsky reassured me that having read through my book, he couldn’t detect any criticisms of his linguistic ideas! Chomsky always situates himself to the left of his critics, and so is not used to criticism from that quarter. Following his usual political instincts, he described my misunderstanding of the relation of the Pentagon to MIT, and to advanced research in general, as a mistake common in mainstream ideology and in right-wing economics.

Among the supporters of Chomsky that I contacted for advice, Michael Albert – whose revolutionary activism I admire – was the most blunt in his criticism, stating that my effort wasn’t even a book. George Katsiaficas gave me rich personal memories of student unrest at MIT during the Vietnam War years. Robert Barsky took pains to be helpful while objecting to my focus on what he called relatively inconsequential matters such as MIT’s military funding, an emphasis which he considers misleading in the context of language studies of the era.

Neil Smith took immense trouble to work through the entire manuscript, making detailed comments. At his suggestion, we met up and spent an afternoon combing through every possible point of misunderstanding. I am grateful to Neil for his generosity in reaching out to someone who disagrees with his own authoritative assessment of Chomsky’s work. In doing so, he introduced me to subtleties I had previously missed. I also owe much to Maggie Tallerman, Frederick Newmeyer, Norbert Hornstein and David Adger, all admirers of Chomsky, for pointing out mistakes and warning me that to criticize my subject is to tangle with a giant.

In a different camp are those intellectual historians who have put the Chomsky legend under a microscope. Randy Allen Harris helped me understand Chomsky’s puzzling repudiation of senior colleagues – notably Zellig Harris and Roman Jakobson – who had previously given him unstinting support. Saussure’s great biographer John Joseph responded with a series of engaging emails. I felt wonderfully understood when he mirrored back to me my subversive intention – to serve justice on Chomsky the scientist without doing an injustice to Chomsky the conscience of America.
Christina Behme read my entire manuscript and made numerous helpful suggestions. Where she disagreed with me, it was usually because she considered me too lenient with Chomsky. I also learned a great deal from David Columbia, whose ultimate political verdict on the US post-war cognitive revolution closely parallels my own.

In opposition to my picture of two distinct Chomskys, George Lakoff responded that the two figures embody the same idealistic – Cartesian – philosophy. We seem likely to continue to disagree on this point, but I did learn from the exchange. Peter Jones reminded me that Chomsky has an impressive track record in demolishing critics from the Marxist left. In similar vein, Rudolf Botha warned me of the sophisticated techniques developed by Chomsky – whom he describes playfully as ‘Lord of the Labyrinth’ – to ensure that, in any public contest, the world’s pre-eminent linguist must always be seen to win. I was happy to take heed of these warnings, resolving not to enter Chomsky’s labyrinth at all, but instead to dig round and tunnel under from outside.

Among friends or colleagues who made valuable editorial suggestions, I would finally like to thank Ted Bayne, Iain Boal, Angelo Cangelosi, Jean-Louis Dessalles, Martin Edwardes, Ramon Ferrer i Cancho, Richard Field, Morna Finnegan, Robin Halpin, Keith Hart, Peter Hudis, Mark Jamieson, Dominic Mitchell, Ian Parker, Gregory Radick, Katrin Redfern, Luc Steels, Sławomir Wacewicz, Ian Watts and Przemysław Żywiczyński. Derek Bickerton gave me crucial encouragement at a time when I badly needed it. Michael Tomasello’s appreciation of my decoding of Noam Chomsky came at a much later stage and greatly lifted my morale.

Outside the field of Chomskyan linguistics, it was my Sussex postgraduate tutor Robin Milner-Gulland who first sparked my interest in Khlebnikov. I am grateful to him for checking over the chapters dealing with Russia’s revolutionary years. Ronald Vroon helped with some of the intricacies of the Russian language, in particular the word sdvig (‘dislocation’ or ‘shift’) as used by Khlebnikov.

Turning to evolutionary theory, I am indebted to Volker Sommer for helping me to understand modern sociobiology and its origins, making some needed corrections to my final chapter. Biological anthropologist Sarah Hrdy has been immensely supportive of the idea that language’s evolutionary emergence should be attributed to profound social change. Sarah’s authoritative insights into the evolution of distinctively human ‘emotional modernity’ and mutual understanding have recently revolutionized the whole field of human origins research; it was her interest and support which inspired me to make hunter-gatherer gender relations and cooperative childcare central to the conclusion of my book.
I try to make my writing uncluttered, straightforward and accessible to a wide readership. Where I have succeeded, I am heavily indebted to Hilary Alton, who worked with me closely on my previous book on humanity’s evolutionary origins. If her influence is still discernible in this book, it is because, having written a complicated sentence or paragraph, I continue to ask myself: ‘How might Hilary have expressed that idea?’ It invariably works. Almost without exception, those who took the time to read my manuscript have told me how clearly the ideas are expressed and how much they enjoyed the adventure.

I have had the level of support from Yale University Press which most authors can only dream of. I really want to thank my editor Robert Baldock, who made it a pleasure to discuss with him all my political and intellectual anxieties. Once he had decided that Yale could take the risk of publishing me again, he gave me every encouragement. I would also like to thank Yale’s Clive Liddiard and Rachael Lonsdale for their skilled editing, good humour and apparently endless patience.

My three brilliant offspring Rosie, Olivia and Jude have all offered encouraging comments and criticisms. Jude in particular has set up this website for anyone wanting to read further: www.scienceandrevolution.org.

Camilla Power has been a constant source of intellectual understanding and support over the years, her criticisms always searching and thought-provoking.

Needless to say, any mistakes that remain are entirely mine.

Chris Knight
London, 2016