Rationality in Economics is based on Vernon Smith’s 2002 Nobel lecture, and five of his previously published papers. But it is emphatically not just a ‘greatest hits’ collection of his major work. Rather, this work is just a starting point for a book that tries to fill what Smith sees as a major failing of the field of study with which he is inextricably identified: experimental economics. ‘Experimental economics,’ says Smith, ‘is good at measurement, testing, and discovery … It has not been good at integration and interpretation within the broader context of human social and economic development.’ His goal is ‘to obtain a larger vision of meaning in social and market behaviour’.

The subtitle, Constructivist and Ecological Forms, refers to the distinction between two kinds of rationality: the logic of a single mind or organisation working rationally and consciously towards an explicit goal; and the logic of unintended consequences that can result in emergent order despite the lack of any overarching design. Examples of the latter are frequently found in nature, such as snowflakes and the evolution of life. Following Hayek and Adam Smith, we have also learned to see such emergent order in the complex of social interactions we call the ‘market’ or the ‘economy’.

The first part of the book is mainly devoted to elaborating the above distinction. The second and third apply it to market and personal exchange respectively, covering topics such as auction design and ultimatum games, while the fourth tackles the more ambitious subjects of philosophy of science and the workings of the mind.

Vernon Smith’s overarching theme is that these two types of logic are not necessarily in opposition. In particular, constructivist logic is good at generating new ideas (or in evolutionary terms, variation), but ‘selection … is
better left to ecological processes’. (p.38) This applies in academia as well as in
the marketplace: although individual theories and experiments are the result
of constructivist thought, the cumulative results that we call ‘science’ are the
product of a complex process of ecological selection, which is why all attempts
to construct a cut-and-dried philosophy of science have failed.

It is impossible in this space to give an adequate summary of the vast range of
subjects, opinions, asides and conjectures contained in this book. I will merely
mention a few of the more intriguing.

On why we are poor Bayesian statisticians: Life is not Bayesian; we can draw a
yellow ball from the urn despite only having priors on white and black, and we
are adapted to deal with this kind of situation. In other words, we are adapted
to deal with surprises, rather than optimal sampling from a set of pre-defined
states. A consequence is that our intuitions are less than optimal in situations
which are susceptible to more ‘rational’ Bayesian calculation — that is, where
there really are only white and black balls.

On loss aversion: We are evolved to survive, not maximise profits (or utility).
Double or nothing below a certain income is perfectly rational.

On behavioural economics: ‘Our bounded rationality as economic theorists is
far more constraining on economic science than the bounded rationality of
privately informed agents is constraining on their ability to maximize the gains
from exchange in markets.’ (p.159)

This last hints at a quirk which Smith shares with Hayek: an allergy to state
regulation, and a willingness to take extreme risks in dismantling it, which
sits oddly with a philosophy that emphasises the limits of human reason. It
makes sense, in economics as in medicine, to say that we are dealing with a
very complex system that we do not fully understand. Since there are many
more ways to be dead than alive, this would seem to encourage extreme caution
when tinkering with the status quo. Yet in their antipathy to state regulation,
they were willing to take extreme risks in dismantling it. Thus Hayek wanted
Thatcher in pursuing her cause to tolerate 20 per cent unemployment rather
than a mere 10 per cent. And Smith confidently argues that the Californian
electricity crisis was caused by not deregulating enough. A respectable view,
perhaps, but the confidence with which it is held is an incongruous with an
evolutionary mindset.

In a similar vein, I think Smith is prone to conflate the ability of his experimental
subjects to generate efficient outcomes under conditions of ‘incomplete
information’ as to the overall market supply and demand, with the ability of
markets to deal with ‘incomplete information’ with respect to the quality of the
good being purchased. Thus his attempt to redefine ‘market failure’ as merely
a failure in our theory of markets, and his criticism of Akerlof and Stiglitz for pushing policy views beyond the scope of their academic findings, comes off as a little forced, not to mention ironic.

But to Smith’s original goals, it would be hard to argue that the man does not have vision. But I find it equally hard to see this book as a vehicle to communicate this vision to a wide audience. Anyone without a strong background in experimental economics, game theory and the philosophy of science will quickly find themselves struggling with both the level of assumed knowledge and the frequently dense prose.

It is beyond the powers of my narrow constructivist rationality to predict whether this book will be seen as a magnum opus or simply the indulgence of a great man nearing retirement. I will leave this judgment to the far greater ecological wisdom of the profession.