In the book under review and in an as yet unwritten second volume that will focus on macro issues, Don Ross proposes a major shift in the focus of economics. He maintains that evolutionary biology and cognitive science must be fully integrated into economic theory. However, given its prominence in the title, I expected much more cognitive science than was delivered in this volume. Don Ross is a philosopher, and where an economist would jump right into the topic, Ross takes a philosopher’s more deliberate and careful approach, building his argument from the ground up. In fact, Ross’s approach is so deliberate that we have to wait for the second volume for an elaboration of his basic thesis, but he provides several hints about it in this one.

A major accomplishment in economics in the latter third of the twentieth century was the grounding of macroeconomics on micro foundations. Ross wants to turn all this on its head—he wants to ground microeconomics on macro foundations. Although I will show why this approach is not as bizarre as it seems on the surface, I think it goes beyond what can be justified by the current theory and evidence, as well as what is necessary to ground economics in evolutionary cognitive science.

It is difficult to determine exactly who the target audience is for Ross’s book. He states that ‘[i]t will likely startle economists to be told that understanding main disputes in the foundations of their discipline requires attention to implicit assumptions about the nature of consciousness’ (p. 38). While I agree with both parts of this statement, first, that economists will be startled, and second, that understanding the nature of consciousness is important (for both understanding Ross’s thesis and integrating cognitive science and evolutionary biology into economics), most economists will find the discussion difficult to follow. At least that’s my sense given my own difficulties, even after having spent several years reading and writing on these issues. Without at least
some background in philosophy an economist reading these sections will be daunted by the blizzard of specialized terms and probably be bewildered by such issues as Wittgenstein’s argument against the possibility of semantic internalism. One possible way to address the naïve economist would have been to skip all of the philosophical background and simply explain why his understanding of the nature of consciousness and the self leads Ross to his particular approach to economics. In other words, Ross’s discussion of the philosophy of the mind and the self is either too brief or too long; it should be long enough to provide the necessary background or it should cut to the chase. But if Ross is writing for philosophers he has another problem: discussions such as that of game theory, though presenting no difficulty to an economist, are much too terse for those without at least some background knowledge. Maybe his target audience is, like himself, the philosopher of economics.

In order to justify a new approach to economics, the old approach must in some way found to be inadequate. Ross does a good job of deconstructing neoclassical economics and, in the process, provides a brief history of economic thought that I found both useful and pitched at a proper level. Included in Ross’s version of neoclassical economics we find revealed preference theory (RPT), expected utility theory and game theory, where rational players play the Nash equilibrium. One of the problems with RPT is that it ‘could turn out to be useless for empirical science if there are no real structures it helps to isolate and measure…’ (p. 148). Ross argues that individuals do not have stable preferences, so there is no stable structure to isolate and measure. Further, the experimental literature has shown that individuals violate virtually all the prescriptions of normative rationality that come out of the extended neoclassical model. In ultimatum, trust, and public goods games as well as in the prisoner’s dilemma, individuals play as if they have other regarding preferences rather than play the Nash equilibrium. Also, Kahneman and Tversky have empirically demonstrated multiple ways in which people deviate from the dictates of expected utility theory. Another criticism of RPT is that it is institution-free, and it has been amply demonstrated by neoinstitutionalists/new institutional economists that institutions matter.

However, there are some problems with this section of the book. For example, Ross says ‘that convexity of the demand function does not require the substantive psychological hypotheses of diminishing marginal utility’ (p. 86)—this statement should have been …convexity of the indifference curves…. Later on he asserts that Samuelson defines an equilibrium for a ‘single firm as the point at which the ratio of the marginal physical productivity to the marginal cost is maximized…’ (p. 101)—this assertion is somewhat vague, he may mean to say that the ratio of the marginal products is equal to the ratio of factor prices. It is hard to know what to make of these and similar statements in the book, they are not typos, but rather seem to be the result either of sloppiness or an imperfect understanding of the details of the topics.

In pressing his case against the extended neoclassical model, Ross argues that the preference reversals found in the experimental literature challenge a core assumption of both RPT and rationality itself—transitivity. Time inconsistency, where an individual prefers $110 in sixty-one days to $100 in sixty days, but reverses those preferences if the choice is moved to the present so that the individual can have the $100 today or the $110 tomorrow, is a major problem for neoclassical rationality. This result is an important building block in Ross’s macro approach to micro, because it