



If the upshot of the previous chapter is correct, there may be little difference in the normative foundations of neoclassical and behavioral economic theory, but the difference when it comes to policy proposals by and large reflects differences in descriptive theory. This, then, brings us to the question of how to assess the relative merits of neoclassical and behavioral economics. It is not my intention to try to settle the argument here. A proper assessment would require a thorough discussion of experimental and other methods, statistical methodology, and interpretation of a wide range of empirical results. A discussion of this nature is beyond the scope of this book, which (as explained in the Preface) is primarily an exercise in exposition. Yet, in the preceding chapters, the aim has been to offer some indication of what is at stake in the debate between behavioral and neoclassical economists, as well as what a proper assessment would look like.

One important insight is that neoclassical economics is not as silly as some of its critics make it out to be, and that many of the objections against the enterprise are misguided. As we saw in Section 11.2, for example, observed behavior in the ultimatum game is perfectly consistent with Nash equilibrium predictions. And Sections 2.6 and 11.2 have shown that neoclassical economics does not say that people are selfish, materialistic, greedy, or anything of that sort. Thus, attacks on what some critics have called the “selfishness axiom” of neoclassical economics are misguided not just in the sense that selfishness is not an axiom in the calculus, but in the sense that selfishness is not implied by the theory. Relatedly, standard theory does not say that people relentlessly pursue their own happiness or pleasure, meaning that any criticism based on the assumption that it does is inevitably flawed. Moreover, as Sections 4.7 and 6.6 indicate, the standard approach does not say that people (consciously or not) perform any sort of calculations in their head. Thus, any criticism predicated on the notion that most people are unable, for example, to apply Bayes’ theorem in their head is misguided.

For practical purposes, economists have no choice but to use additional assumptions, often called **auxiliary assumptions**, in conjunction with the theories. In order to make substantive predictions, for example, the theorist might need to make more specific assumptions about what, exactly, people have preferences over, and how, exactly, these preferences order the available options. Depending on context, auxiliary assumptions might say that people only care about their own payoffs in dollar terms. The auxiliary assumptions need to be justified on independent grounds, and the justification may or may not be convincing. Such auxiliary assumptions, though, form no essential part of the neoclassical enterprise and can easily be replaced by others.

Discussion

There may be little difference between behavioral economics and large reflects difference the question of how to behavioral economics. It is not proper assessment would other methods, statistical of empirical results. All explained in the Preface) is preceding chapters, the aim take in the debate between what a proper assessment

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choice but to use additional assumptions, in conjunction with their assumptions, for example, the theorist is about what, exactly, people preferences order the available options might say that people assumptions. The auxiliary assumptions and the justification may or may not, though, form no essential part replaced by others.

A no less important insight, however, is that anecdotal, experimental, and field evidence all suggest that people's observed behavior deviates from neoclassical theory in predictable fashion. There is little doubt that people (sometimes) do things such as honoring sunk costs, relying on adaptive but imperfect heuristics, violating the sure-thing principle, acting impulsively, and exhibiting limited strategic thinking. If deviations were random and unsystematic, they would (for many purposes) be theoretically uninteresting. In fact, however, deviations are frequently substantial and systematic, which means that they are predictable and can be captured by using a descriptive, scientific theory. At a fundamental level, behavioral economics is the result of this insight. The fact that people's behavior is irrational does not mean that it is unpredictable, nor that it cannot be described using scientific means.

The models developed by behavioral economists can be challenged on various grounds. For one thing, it is possible that future studies will reveal that the models were based on inadequate data. Recently, psychology has been thrown into a so-called "replication crisis" as several apparently well-established results have turned out to be hard to replicate. This is obviously bad news for the results – and for the individual researchers who produced them – but it is not necessarily a problem for psychology: what makes science different from other kinds of human activity is that it is *supposed* to be open to revision in light of new data. While behavioral economists are by and large confident that their empirical results will hold up, chances are that at least some of them will not. Again, this is how science works. A challenger can also point out that it is sometimes possible, when the results hold up under scrutiny, to accommodate these results within the standard framework, either by redescribing the choices available to the agent or by admitting additional arguments into the utility function. And it is important not to attribute irrationality to people when their behavior is better described as consistent with standard theory. That said, neoclassical economists frequently bend over backwards to accommodate empirical results in a manner that is both artificial and *ad hoc*. In the interest of defending standard theory, orthodox economists sometimes cook up a contorted – so-called "exotic" – utility function that after the fact makes observed behavior consistent with the neoclassical utility-maximization narrative, though it is not supported by any other independent evidence. It is often both simpler and more plausible to infer that people sometimes are in violation of standard theory.

Some neoclassical economists, as we have seen, are happy to admit that this is so. In defense of analytical game theory, as we know from Section 11.5, it has been argued that neoclassical theory is only intended to apply under sharply circumscribed conditions. Of course, this defense of neoclassical economics does not constitute an argument against behavioral economics. Instead, this response might offers a way to reconcile neoclassical and behavioral economics. Many behavioral economists are happy to admit that observed behavior sometimes approaches or coincides with neoclassical predictions under certain conditions. But if those conditions do not hold, neoclassical economists should be able to agree that a non-neoclassical theory is required to explain and predict behavior. This is the domain of behavioral economics.

Note that nothing prevents behavioral economists from continuing to use neoclassical models for various purposes. Behavioral economists are glad to admit that neoclassical models sometimes do a great job of capturing observed choices. In fact, this is part of the reason why neoclassical models often survive as special cases of a more general behavioral model. Thus, the exponential discounting function (from Section 8.3) survives as a special case of the hyperbolic one (from Section 9.2): just set β to one and the latter reduces to the former. There is nothing inconsistent about this. But there is an interesting asymmetry between neoclassical and behavioral economics. Postwar neoclassical orthodoxy insists that economics must rid itself of all ties to psychology – hedonic and otherwise (see Section 1.2). An economist committed to this view cannot consistently help himself or herself to theories making references to things “in the head” whenever it is convenient to do so. In this respect too, behavioral economics has a distinct advantage over its neoclassical counterpart.

Science progresses in fits and starts. Rather than a steady progression of darkness to light, science tends to offer a series of increasingly complex models that capture to a greater or a lesser extent empirical phenomena that for whatever reason attract scientists’ interest. The “final” theory is likely to remain out of reach. The same is true of economics. In *Worstward Ho*, Samuel Beckett wrote: “Ever tried. Ever failed. No matter. Try again. Fail again. Fail better.” To use Beckett’s phrase, progress in science in general and economics in particular can be thought of as a matter of failing better. Incidentally, Beckett might just as well have been describing the study of science, which is never finished, or the writing of textbooks, which can always be improved. To what extent do behavioral economists fail better than neoclassical economists? I do not pretend to have the answer. But I do hope to have shed some light on the nature of both neoclassical and behavioral economics, and to have underscored some of the power and promise of economic analysis of social phenomena.

FURTHER READING

Worstward Ho, first published in 1983, is included in *Nohow On* (Beckett, 1989); the quotation appears on p. 101. Behavioral economists’ use of neoclassical theory is discussed at length in Angner (no date). For a deeper discussion about the nature of behavioral economics, its strengths and weaknesses, see Davis (2011) and Ross (2005). For a more advanced textbook, see Wilkinson and Klaes (2012).