PART I

The Failed Pathway and Exit Strategies

Chapters 1, 2, and 3 in this first part of the book make the case for replacement of the *Homo economicus* individual conception. I argue that explaining what individuals are requires explaining their identity. Once an identity analysis is adopted, we see that the mainstream socially *un*embedded atomistic individual conception fails to explain what individuals are, and begin to see what an alternative socially embedded individual conception involves. Chapters 4–9 of the book develop that alternative conception and its normative implications.

Chapter 1 discusses the issue of scientific objectivity in economics. It criticizes a closed science "view from nowhere" conception of economics and defends an open science "view from somewhere" conception of economics as an objective science. The first conception is ascribed to current mainstream economics, is associated with its principle practices – reductionist modeling, formalization, limited interdisciplinarity, and value neutrality – and has as its foundation the abstract *Homo economicus* conception. Two problematic consequences of these practices are:

(i) value blindness regarding the range and complexity of human values;
(ii) fatalism regarding human behavior in employing a tenseless rather than tensed representation of time.

In contrast, the principle practices of an open science "view from somewhere" conception of economics as a science – complexity modeling, mixed methods, strong relationships to other disciplines, and value diversity – provide the foundations of a socially and historically embedded individual conception. Chapter 1 closes with discussion of the question: Might mainstream economics be a science bubble?

Chapter 2 introduces identity analysis and uses it to examine whether the *Homo economicus* conception can identify real-world individuals. It describes the self-referential, circular character of that conception and shows that the belief that *Homo economicus* identifies

real-world individuals rests on a fallacious inference known as affirming the consequent. Chapter 2 reviews how the identity concept came into economics by making a person's individual identity their utility function. This is compared with how social identity theory understands individual identity, and economics and social identity's view of representative agents is then distinguished. Sen's multiple selves view of individual identity is contrasted with both in light of its ontological basis. Section 3 of Chapter 2 critically evaluates rationality theory's two independence axioms regarding preferences, the logical basis for saying choice is context-independent and for the unembedded *Homo economicus* individual conception. It argues neither can be defended and that not only must choice be seen to be context-dependent, but that individuals need to be seen as socially and historically embedded.

Chapter 3 links context-dependent choice with what has recently been called in economics the "reconciliation problem" between positive and normative economics, and argues that efforts to solve that problem have led to a number of different strategies for reconstructing economics' individual conception. It first reviews the mainstream's "inner rational agent" attempt to preserve *Homo economicus* and then contrasts two broad strategies for reconstructing economics' individual conception based on opposing views of individual autonomy: an "internalist" view that makes it depend on private subjectivity and an "externalist" view that makes it depend on economic and social institutions. Chapter 3 reviews four, recent strategies in the literature which take the "externalist" view and move toward a socially embedded individual conception. All four make ability to adjust part of what people are, but all four remain attached to the idea that individuals are only made up of preferences. Thus, I argue they fail to explain how people are autonomous individuals able to choose and act freely.

1 *Objectivity in Economics and the Problem of the Individual*

Scientific knowledge is social both in the ways it is created and in the uses it serves.

Longino (1990, p. 180)

In its excessive quest for generality, utility-maximising rational choice theory fails to focus on the historically and geographically specific features of socio-economic systems. As long as such theory is confined to ahistorical generalities, then it will remain highly limited in dealing with the real world.

Hodgson (2012, p. 94)

And one might almost say that these foundation walls are carried by the whole house.

Wittgenstein (1974, sect. 248)

1 Objectivity in Economics: The Mainstream View from Nowhere Science Conception

Might mainstream economics be a science bubble? The long history of science is filled with examples of dominant, influential approaches that were later shown to be based on mistaken conceptual foundations, and a case can be made that this is so of mainstream economics. Sciences, like other world views, historically evolve, change, and get superseded. In the history of science, worries often first emerge when significant evidence cannot be readily accommodated within an approach or must be strenuously interpreted to fit preexisting conceptual commitments. The emergence of behavioral economics might signal the beginnings of such worries regarding mainstream rational choice theory. Yet in the long run, the issue is whether a science approach somehow produces objective science. This raises the question: What does objectivity in science involve and what basis is it thought to have in mainstream

economics? Most of this chapter addresses this issue, and at the end, I return to the science bubble question.

The first influential use of the term "mainstream economics" was in seventeenth edition of Paul Samuelson and William Nordhaus' *Economics* textbook (Samuelson and Nordhaus, 2001). Since then, there has been considerable discussion regarding what "mainstream" means. Some have emphasized the differences between neoclassical or orthodox and heterodox economics (Lawson, 2003, 2006; Dequech, 2007–2008; Lee, 2009; Mearman, 2011; Jo et al., 2017; Dow, 2021). Others have emphasized how new approaches in economics have shifted economics in varying ways and degrees away from an exclusively neoclassical economics toward a more multisided economics that draws on both traditional heterodoxy and increasingly other social science disciplines, and how these new research strategies contest many fundamental neoclassical principles and assumptions (Colander, Holt, and Rosser, 2004, 2006; Rodrik, 2015; Angner, 2019; Crespo, 2020b; Bögenhold, 2021; De Vroey and Pensieroso, 2021; Primrose et al., 2022; Ross, 2022; Truc, 2022).

I share many of the ideas in these two approaches but differentiate mainstream and non-mainstream approaches according to whether they employ closed or open conceptions of science. This distinction – originated by Ludwig von Bertalanffy (1968) – has been used in a number different ways in history and philosophy of science and more recently used effectively in economics to characterize different schools of thought (Dow, 2004; Chick and Dow, 2005; see Davis, 2023a) and in Critical realist philosophy of economics (Lawson, 1997, 2003, 2023). I add to this the distinction between a "view from nowhere" conception of science and a "view from somewhere" conception of science. I then associate these two conceptions and views with two alternative ways of looking at research practices in economics.

Objectivity in science is far from being an issue that concerns most mainstream economists, but if called upon to address it they might rest their defense of economics' objectivity as a science on what are often regarded as the mainstream's principle research practices:

reductionist modeling;
mathematical formalization;
limited relations to other disciplines;
value neutrality.

If then asked to explain why these practices make economics an objective science, they might say that they make economics like the physical and natural sciences that secure objectivity by enabling scientists to, as it were, "stand outside" their subject matter in a disinterested way.

This is the famous "view from nowhere" idea in science (Nagel, 1986; Sugden, 2018; Reiss and Sprenger, 2020). The rationale behind it is that objectivity in science depends on scientists being independent of their subject matter. Economics' principle practices, then, would presumably produce this independence. It would follow, were this stance indeed to produce objective science, that the contents of mainstream economics, including the *Homo economicus* doctrine and the full range of analysis dependent upon it, would provide an objective representation of economic life – just as if economists saw the nature of world as it is in itself clearly through a glass window.

Yet this is not the view of science that many physical and natural scientists hold. Their idea is that objectivity in science involves a "view from somewhere" and scientists instead "standing inside" their subject matters in an interested way. For example, astronomers, preeminently physical, natural scientists, are able to investigate a wide range of the electromagnetic spectrum not visible to the human eye because they have developed a number of specialized "viewing" technologies designed to allow them to also "see" the infrared, ultraviolet, radio, gamma, microwaves, and X-ray bands of the spectrum. That is, *what* science sees in the world depends on *how* scientists see, where this depends on their understanding of how their investigation influences what they see. Scientists always stand inside their subject matters, and the idea that they could stand outside them is a fiction that distorts their representation of the world and impedes their investigation.

In mainstream economics, I argue, this creates two false impressions about the economy: first, that what mainstream economists say exists in the economy is all that there is to be seen; second, that the economy appears to be a relatively deterministic system independently there to be discovered. The two corresponding effects of this misconception are: The first blinds us to the full range and complexity of human values and the different roles they play in economic life and society; the second, contrary to human freedom, imposes fatalism on economics regarding how people direct their lives and how economies can be constructed to promote human well-being and social goals. I argue, then, that both effects derive from the *Homo economicus* doctrine

that I have argued is foundational to mainstream economics and the lynchpin of its view from nowhere understanding of economics as a science (Davis, 2003b, 2011).

a Mainstream Economics' Value Blindness

The mainstream *Homo economicus* doctrine narrows people down to being self-regarding or essentially self-interested, isolated individuals, who only interact at a distance from each other through markets, and for whom direct interaction is an "externality" that can make markets inefficient. The means by which it does this narrowing down is its commitment to value blindness. Central to this, and the foundation of its utility maximization understanding of individual behavior, is the concept of subjective preference. Preference is of course a value concept, but though there exists extensive thinking about of the nature of value and valuing in science, literature, philosophy, and human thought generally, the only value the mainstream sees is subjective preference. This, it defines quite rigorously via rational theory's standard axioms that reduce value to a single, abstract relation. Only then does it makes sense to say people maximize utility, since were we to acknowledge the many different ways and things people value, it would make little sense to say people maximize just one thing.[1]

Thus, all one is permitted to say/see when we speak of the many ways people value things is captured by the ordinal preference relation. All different motivations people might have for why they prefer one thing to another, how much so, how any one set of preferences relates to other sets of preferences, and how preferences are related to different kinds of values (ethical, prudential, personal, aesthetic, attitudinal, etc.) are all set aside with the claim that because preferences are subjective, nothing else can be said about their content.

This commitment to an abstract, logical representation of the preference concept is rarely explained or justified. Most rational choice

[1] There are a variety of recent views in economics and philosophy of economics about what preferences are, ranging from simply choices without psychological characteristics (Gul and Pesendorfer, 2008) to "total comparative evaluations" more like judgments than desires (Hausman, 2012, p. x). Economists, however, generally seem to take preferences to essentially be desires (Angner, 2018) without much consideration of what their nature is and how as values they relate to other kinds of values.

theory practitioners do not recognize that it involves a philosophically controversial epistemological stance. Nor is there much methodological or historical discussion in economics regarding what gets assumed in this logical turn.[2] Why, we should ask, does rational choice theory need to be "rational" in this specifically logical way? What, moreover, are the grounds for this narrowing of the concept of value?

In twentieth-century philosophy, the idea that concepts and theories need logical formulation is associated with logicism, a Platonist philosophical view resurrected in the early twentieth century and associated with Gottlob Frege and Bertrand Russell's effort to reduce mathematics to logic and Ludwig Wittgenstein's early logical approach to philosophy. Though Kurt Gödel overturned their larger ambitions, the conviction that philosophy and science required logical foundations was influential, and a succession of individuals now seen as the founders of modern economics – Ragnar Frisch, John von Neumann and Oskar Morgenstern, Jacob Marschak, Kenneth Arrow, Gerard Debreu, Paul Samuelson, and others – subsequently transferred this vision to the interpretation of neoclassical economic theory in developing the axiomatic foundations of what became rational choice theory. In contrast to earlier neoclassical thinking dating back to the late nineteenth century that treated preference as a broad, heuristic concept, preference became a concept that depended upon very specific logical formulation. People's rational behavior then reflected that they possessed "stable, well-ordered preferences."[3]

Rational choice theory has this history at its foundation. Though now it is commonly thought the theory implies people are rational in terms of their reasoning capacity, what "rational" really means is that their behavior can be explained in term of a set of logical axioms that allows us to say they have stable, well-ordered preferences. Not questioned is whether there are scientific reasons to think this, what philosophical commitments this involves, what their possible epistemological limitations might be, and whether there are conceptual and theoretical consequences of this commitment for economics as

[2] There are important exceptions (see especially Weintraub, 2002; Giocoli, 2003; Moscati, 2018). See Hands (2001) for the early and later twentieth-century history of methodology and philosophy of economics.

[3] See Hansson and Grüne-Yanoff (2022) for the history of development of the preference concept in economics.

a science – all despite the evident narrowing of the concept of value that this produced.

For proponents of the theory, then, rather than engage these questions and enter into discussion over what kind of concepts economics should rest on, particularly regarding one of the most human of all concepts, better to say that economics is simply about people's preferences rigorously understood, distance the preference concept from the broader idea of value, and say values in the broader sense are "non-scientific" and do not belong in economics. Value concepts, then, are "non-scientific" specifically because they lack precise logical foundations. Given this, one is then left to devote oneself to mathematically modeling behavior in rational choice terms. This ties "progress" in economics to "[t]he development and use of mathematical models [that now] is indeed representative of what large parts of economics does as a modelling science," and means that "theoretical progress is no longer what economists primarily aim to achieve" (Boumans and Herfeld, 2023, 224, 225). In terms of recent behavioral economics reasoning, this is a kind of confirmation bias in which the theory can never be falsified or overturned.[4]

A basic principle of science this move violates is to close off the development of a science to new information. Scientific theory constantly undergoes change and development as it accommodates new kinds of information, as occurred when astronomers and physicists changed their theory of what we can see when they developed new technologies that replaced seeing by human vision alone with what can be seen in the electromagnetic spectrum. It is ironic, then, that until quite recently mainstream economics barred experiments as a technology of investigation, claiming that they offered nothing new to be seen that rational choice theory did not already explain. Now of course experimentation is widely practiced in economics, and how choice is "rational" has become an issue. Why, then, should most economists continue to defend the theory?

One possible rationale is that were preference relationships allowed to be more complicated incorporating many kinds of values, the whole

[4] As Mary Morgan has put it in her "world in the model" examination of economics' postwar modeling practice: "As models replaced more general principles and laws, so economists came to interpret the behavior and phenomena they saw in the economic world directly in terms of those models" (Morgan, 2012, p. 3).

apparatus of predictable equilibrium, supply-and-demand relationships could break down, taking much of mainstream thinking with it. Then what would economics have to offer as a presumably objective science? I return to this issue in the following section in connection with the mainstream's fatalism problem. But ultimately, I believe, the deep rationale for the mainstream's narrow conception of preference/value rests on its narrowing the ontological conception of the person to what fits the idea that people are essentially self-regarding or self-interested, isolated individuals who interact mostly at a distance from one another through markets. I comment briefly on the Platonist philosophical instincts that undergird this view.

We can characterize the mainstream's narrow conception of preference/value, embodied in rational choice theory and the practice of reductionist modeling, as an abstract essentialism – the philosophical view that what science investigates can ultimately be reduced to sets of abstracts essences underlying the phenomena we observe. Plato elaborated this view long ago in his *Republic* (1941), arguing that society ought to be governed by "philosopher kings" who alone can see and fully apprehend these essences (or his transcendent Platonic forms). These "philosopher kings" tell us what we cannot see, and tell us what we ought to see, which only they can truly see. For the mainstream, this hidden underlying essence of value is the abstract preference relation (the basis of risk-free and risky choice analysis). As the essence of value, it secures economics' objectivity as a science, and thus the discipline's and economists' "philosopher king" role in producing a well-governed society explained in terms of the market mechanism – all as encapsulated in *Homo economicus* doctrine.

Plato's theory treated the everyday phenomena we observe as imperfect representations of the underlying essences on which they depend. What we ordinarily see is at best an approximation of those underlying essences. The error of the ordinary person for the abstract essentialist is to take the way the phenomena appear as meaningful and producing valuable information. What they should see were they able to grasp the hidden, underlying essential relationships is that empirical research in economics can ultimately only confirm rational choice theory. Experiments, should they contradict this, must be redone because they must somehow be mistaken. For example, if people sometimes appear to be altruistic, this somehow still needs to be shown to be really just utility maximizing behavior.

If people are believed to exhibit present bias and weakness of will rather than behave rationally, this can only be because their "true" inner preferences have not been correctly identified.

Consider now how mainstream value blindness goes hand-in-hand with a fatalism about economic life and ultimately a rejection of human freedom. I address this in connection with how the mainstream's view from nowhere imposes a particular conception of time upon economic life.

b Mainstream economics' fatalism and the problem of time

When we increase the number and kinds of values we say operate in economic and social life, human behavior becomes considerably more complex. In contrast to the mainstream reduction of value to one form that produces a single set of behavioral relationships, when different types of values interact in multiple, often in unexpected ways, human behavior becomes less predictable and equilibrium-like and more indeterminate. Indeterminacy is not same thing as human freedom, but it is a reason to suppose it exists whereas arguing that behavior is highly predictable and determinate puts human freedom in question. As Elizabeth Anscombe put it: "The truth of physical indeterminism is thus indispensable if we are to make anything of the claim to freedom" ([1971] 1981: 146).[5]

Indeed, if people are generally predictable, which a reduction of human values to preferences and the logic of preferences allows one to say, then there is no need to even use a freedom concept or say people behave "freely" other than to appeal to popular sentiments. Given that most people believe freedom exists in some form, it is not surprising that the concept is used informally in economics, as in the claim that economics is "choice" theory. Here, then, I argue that underlying the mainstream view is an understanding of time in which people really do not have choices.

The meaning and nature of time is a largely neglected subject in the methodology of economics, so we need to turn to philosophy to understand some of the main issues involved (see Gale, 1967; Emery, Markosian, and Sullivan, 2020). A key issue concerns the difference between the past–present–future temporal sequence and the

[5] She went on to add: "The physically undetermined is not thereby 'free.' For freedom at least involves the power of acting according to an idea…" (*Ibid.*). Drakopoulos in a pair of publications (2022, 2023) shows how the standard view's historically narrowing the preference concept to rule out interpersonal comparisons of utility serves its "conceptual resilience."