

#### CHAPTER 2

# Lionel Robbins and Scarcity

British economist Lionel Robbins (1898–1984) first published his small, but influential book *An Essay on the Nature and Significance of Economic Science* in 1932, only to revise it over the next three years for republication to account for hostile criticisms from his fellow academic economists. In the end, Robbins was able to have his definition of the discipline, organized around his construction of scarcity, adopted widely in the profession. Indeed, ever since the publication of his book, an untold count of students in their first economics course have had to parrot Robbins on his construction of scarcity on their first tests.

# DISUNITY IN ECONOMIC INQUIRIES

Robbins started his book with the observation that the economics discipline was beset with the problem of having various and divergent definitions with no unifying theme. He offers several prominent definitions he drew from "standard works" available in the early 1930s, which failed to show a unifying theme in what all economists do, or so he contended<sup>1</sup>:

- Alfred Marshall: "Economics is the study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being."<sup>2</sup>
- Herbert Davenport: "Economics is the science that treats phenomena from the standpoint of price."

- Edwin Cannan: "The aim of Political Economy is the explanation of the general causes on which material well-being of human beings depends."4
- William Beveridge: Economics is "the study of the general methods by which men co-operate to meet their material needs."5
- Arthur Pigou: Economics is the study of economic welfare, but mainly (if not only) "that part of welfare which can be brought directly or indirectly into relation with the measuring rod of money."6

Robbins concludes, "We all talk about the same things [generalizations], but we have not yet agreed what it is we are talking about."<sup>7</sup> According to Robbins, any science must evolve with the definition of a discipline following the development of its content: "Indeed, it follows from the very nature of science that until it has reached a certain stage of development, definition of its scope is necessarily impossible," Robbins muses. He cites, approvingly, John Stuart Mill's observation made a century earlier: "Like the wall of a city it has usually been erected, not to be a receptacle for such edifices as might afterwards spring up, but to circumscribe an aggregate already in existence."8

Robbins posits that it was not possible until "quite recent times" that the "identity of the problems underlying these different enquiries ... [could] be detected"9: "At an earlier stage, any attempt to discover the ultimate nature of the science was necessarily doomed to disaster. It would have been a waste of time to have attempted it." <sup>10</sup> Robbins justifies his own search for a unifying definition for the discipline because a sufficient range of economic "generalizations" had then been devised that were in need of "unification" through the identification of a common theme. Moreover, finding the "unity" would encourage progress in economic science and reduce misguiding conceptual distractions:

Unless one has grasped what this unity is, one is apt to go off on false scents. There can be little doubt that one of the greatest dangers which beset the modern economist is preoccupation with the irrelevant - the multiplication of activities having little or no connection with the solution of problems strictly germane to his subject... moreover, if these solutions are to be fruitfully applied, if we are to understand correctly the bearing of Economic Science on practice, it is essential that we should know exactly the implications and limitations of the generalizations it establishes. 11

Robbins acknowledges that the concept of "material" was common in widely used definitions of economics (see Marshall's, Cannan's, and Beveridge's definitions above), but he insisted that economic generalizations went beyond solely material concerns. However, if such matters were "of the order of marginal cases" that invariably fall outside the confines of any definition for a discipline, there is a more important consideration, the definition's "capacity to describe exactly the ultimate subject-matter of the main generalizations of the science." 12 Robins pointed to labor economics that is greatly concerned with wage determination, and wages in themselves often fit poorly with any people's material concerns. He added that "the wages of the members of an orchestra, for instance, are paid for work which has not the remotest bearing on material welfare" 13 and that workers might buy bread with his earnings, which fits within the material construction of the discipline, but the worker might also buy a seat in a theater. The "immaterial" uses of wages are so great as to make any material-based definition of economics "arbitrarily delimited."14

Moreover, a great variety of workers—for example, dancers and opera singers—also produce goods and services that lack material content, and citing Irving Fisher, Robbins contended that "the income from a material object must in the last resort be conceived as an 'immaterial' use." Indeed, in the words of Fisher, the income from valets and opera singers "perishes in the moment of its production," <sup>15</sup> a line of reasoning that caused Robbins to conclude, "Whatever Economics is concerned with, it is *not* concerned with the causes of material welfare as such" (emphasis in the original). <sup>16</sup> Besides, with any meaningful distinction between "economic" and "non-economic"—which is tantamount to "material" and "non-material"—sources of welfare, "there is still an economic problem of deciding between the 'economic' and 'non-economic'" uses of the fixed amount of time in a day. <sup>17</sup>

# SCARCITY, THE UNIFYING THEME IN ECONOMIC INQUIRIES

Feeling confident that he had demolished any reliance on the "material" sources of "economics," Robbins moves on to take up the presumption that exchange is the delimiting issue of the discipline. He insists that there are four conditions that, ultimately, give "economic" meaning to life, even for people isolated from one another, which can be embraced by economists:

- Even "isolated man" (Robinson Crusoe is Robbins' favorite metaphor) wants both real income and leisure.
- "Isolated man" does not have the wherewithal to fully satisfy his desires for both real income and leisure.
- He can seek more real income and leisure in varying proportions.
- Various isolated people can be expected to seek different combinations of real income and leisure.

These four conditions also apply generally to people in all social settings, but they do not apply to all behaviors. A "multiplicity of ends" is of no interest to economists if all the ends can be satisfied. Similarly, limited means, by themselves, is not a matter of concern when the means can only be used in the satisfying one given end: "The Manna which fell from heaven may have been scarce, but if it is impossible to exchange it for something else or to postpone its use, it was not the object of any activity with an economic aspect." He concludes that

The economist studies the disposal of scarce means. He is interested in in the way different degrees of scarcity of different goods give rise to different ratios of valuation between them, and he is interested in the way in which changes in conditions of scarcity, whether coming from changes in ends or changes in means – from the demand side or the supply side – affect these ratios.<sup>19</sup>

By finding fault with alternative definitions of the discipline, Robbins presumes he then puts himself in a position to offer a more representative and inclusive definition of the discipline, "the science which studies human behavior as a relationship between ends and scarce means which have alternative uses." Accordingly, the purview of economists extends to "any kind of human behaviour" so long as the activity involves choices, or the sacrifice of some ends when others are achieved "There are no limitations on the subject-matter of Economic Science save this," Robbins boldly asserts. 22

At the same time, Robbins doubles back on where he comes down on the limits of economics—a couple of times, in fact. At one point, after asserting "no limitations," he argues that "economic generalizations" are not so applicable to those of "isolated man," or the Robinson Crusoes of the world, because they would be "uninteresting." The task of the isolated man is merely to apply his "productive powers to this or that."

Moreover, Robbins then followed Ludwig von Mises' advice by noting how economic generalization would not apply (at least, not fully) to central planners in communist countries because the dictates of the "executive" would not be guided by "prices and costs" and would, hence, be completely "arbitrary," which is to say that "economic analysis has [the] most utility in the exchange economy." Nevertheless, Robbins insisted that economic analysis still applies to isolated man because, after all, every isolated person's decisions are limited by the prevalence of scarcity. Even the decisions of the "executive" in communist/centrally planned economy is constrained by scarcity. They both must choose how best to employ their "productive power." Again, consistency in argument is not always a hallmark of his essay.

Robbins goes on to explore the relevance of ends and means taken separately. In themselves, "ends" are of little consequence for economists, and it matters little what they are: "The ends may be noble or they may be base. They may be 'material' or 'immaterial'—if ends can be so described." For ends to be relevant for economic analysis, "the attainment of one set of ends involves the sacrifice of others."25 Even for monks, economics applies because they have to work out the distribution of their time "between prayer and good works," with good works, in turn, having "its economic aspect equally with the distribution of time between orgies and slumber."26 Anticipating the "economic imperialism" (or the spread of economic analysis beyond business and into subjects covered in other social sciences that emerged in force in the 1960s, led by economists, such as Gary Becker and James Buchanan), even prostitution and other "indulgences" can be subject to economic analysis because the service must also confront the consequences of scarcity—and choices and tradeoffs.<sup>27</sup>

In Robbins' view, the *ends* themselves, taken separately from means, don't matter in economics, which distinguishes economics from ethics, a discipline consumed with *what ends* matter. To Robbins, what is important to the discipline is the ends/means conflict that requires choices and tradeoffs. Then what matters even more are the deductions economists can draw in theory from the ends/means conflict.<sup>28</sup> With similar arguments, Robbins delimits economic analysis further:

• Economic analysis is not concerned with engineering-based "motion studies." The discipline is independent of technologies and is only concerned with how technologies affect the ends/means

conflicts, that is, the extent to which they are constrained by scarcity and, in turn, affect people's choices. And one of the "main dangers" that comes from natural sciences is the inability of natural scientists to distinguish between what is "economic" and what is "technical"<sup>29</sup>: "[T]he problem of technique arises when there is one end and a multiplicity of means, the problem of economy when both the ends and the means are multiple."<sup>30</sup> Economics, therefore, is the study of the implications of particular "relationships," between, on the one hand, the "ends as the possible objective of conduct" and, on the other, "the technical and social environments on the other."<sup>31</sup>

- Economic theory describes the "forms" of the relationships. Economic history describes the "substance" of the isolated relationships through time," or, rather, "the changing network of economic relationships" from time period to time period.<sup>32</sup>
- Robbins delimits economics in a way that seems to contrast with Marx's materialistic dialectic evolution of economy: "[T]here is nothing in economic analysis which entitles us to assert that all history is to be explained in 'economic' terms, if economic is to be used as equivalent to the technically material."<sup>33</sup>
- For Robbins, given the prevalence of scarcity and the changes in ends and means, "changes in relative evaluations are data," and evaluations are necessarily relative—that is, relative to the available resources to satisfy the pressing ends, which makes wealth an "essentially relative concept." Similarly, "productive power" is relative to the capacity of means to satisfy ends, with "productive power" changing with demand.<sup>34</sup>
- For many economist, scarcity occurs because of the conflicts that emerge when *limited* means confronts *unlimited* wants. All Robbins insists is necessary for scarcity to be prevalent is for the "given ends" to exceed the "given means," or that not all ends can be satisfied (emphasis in the original).<sup>35</sup> He doesn't hang his concept of scarcity on the notion that ends, or wants, need to come close to being unlimited, as any number of modern economists seem to do (at least as represented by undergraduate textbooks).
- For Robbins, a key ingredient to *economic* scarcity was the introduction of human evaluation. Quantities of goods and resources considered apart from their evaluation by people may be meaningful to disciplines such as accounting and engineering, but have

no meaning for economists' analytical interests. Even then, marginal evaluations of goods will not be positive without the quantity demanded exceeding the quantity that is available, or can be made available.<sup>36</sup> This suggests that for Robbins, *opportunity cost* is not merely *what* is given up in choices. Rather, it is the *value* of what is foregone in choices. Choices must be made based on some common denominator, which necessarily involves subjective evaluations of options subject to choice (a point that suggests he recognized that options far removed from being viable options would not be given separate evaluations, contrary to what is often presumed in modern choice theory).

- For Robbins, absolute scarcity was of no (or maybe of little) consequence to economists. Absolute scarcity had no more meaning than absolute distance or absolute speed, meaning without their consideration being a matter of relationships with other distances and speeds. What was important, and meaningful, in economic analysis was relative scarcity, or how scarce something was relative to the scarcity of other things, which showed up in "relative valuation" and relative prices. Prices taken separately "mean nothing": "Value is a relation, not a measurement." Economic choices are always and everywhere made based on the *relative* evaluations of options.
- Prices in the future can affect prices today, but prices, in and of themselves, have no meaning when compared with prices of the past. Prices of the past have meaning in relationship to the prices of other things then, and the same must be said of prices today. Without knowledge of *relative* prices, nothing can be understood by the comparisons of prices of given goods today with prices in the past.<sup>38</sup> "Bygones are forever bygones," Robbins points out repeatedly, which means that prices of the past can't affect prices today (a position that behavioral economists and neuroeconomists will now, no doubt, dispute with evidence and, maybe, some glee).<sup>39</sup>

# REBUKES OF HISTORICAL AND PSYCHOLOGICAL ANALYTICS

Having defined economics as a matter of drawing out the implications of scarcity, Robbins insists that his "aim" is "not to discover how Economics should be pursued" but to assess the "significance" that can be given to the "results" (by which he appears to mean "economic generalizations," or principles and laws) that had been, to his writings, devised, for example, the emergence of "food queues" whenever "the fixing of prices" has been imposed in relatively free markets. <sup>40</sup> While Robbins references historical events, he argues that they are not a basis for economic generalization. Why? Because history cannot be counted on to repeat itself, contrary to a widely held belief: "[H]istorical induction, unaided by analytical judgment, is the worst possible basis of prophecy." <sup>41</sup> The flow of events through time are simply the consequence of myriad interacting and, thus, ever-changing forces. <sup>42</sup>

Moreover, in a rebuke to psychology (perhaps applicable, at least somewhat, to modern behavioral economics, grounded in psychological methods), Robbins also argues that economics cannot rest on "controlled experiments." Government policies may have been imposed at times in what approximates a controlled experiment, but "it would be very superficial to suppose that the results of these 'experiments' can be held to justify a proposition of such wide applicability," which suggests that controlled experiments would likely be a "very fragile body of economic generalizations."43 Conditions in the real world are exceedingly complex and simply not likely to replicate very often the narrow (and, to one degree or another) artificial conditions of controlled experiments, especially since choices must be made "not between certainties, but rather between a range of estimated probabilities" (a point that behavioral psychologists, starting with Daniel Kahneman and Richard Thaler, would hardly dispute today but is a line of argument that will have to wait for exploration in Chapters 4 and 5).44

On what then can economic generalizations be founded? Very simply, "a series of postulates," with the chief postulates being "assumptions involving in some way simply and indisputable facts of experience" (with "experience" allowing for history to work its way into economic theory, contrary to Robbins protestations that historical prices have no role in good theory). One such "indisputable fact of experience" is that consumers can and do order their preferences (with economists shying from explaining why consumers affix different values to different goods<sup>45</sup>) and that producers can use alternative combinations of available factors of production. Such founding presumptions do not have to be established by controlled experiments. Rather, "they are so much the stuff of our everyday experience that they have only to be stated to be recognized as obvious." Indeed, Robbins cautions that the founding postulates might seem so obvious that critics might fault economists for assuming very little, or nothing, in their basic postulates, which means they risk

not being able to deduce much of consequence from their basic postulates. Clearly, Robbins saw economics as an abstract deductive science with all derived postulates constrained mainly by what constitutes indisputable founding postulates and by the rules for logical consistency.<sup>48</sup>

Robbins was (apparently) conflicted over the value of psychologists operating as social scientists. At one point, he suggested that psychologists were pulled astray by "fads," or by what is "fashionable," in topics and methods of inquiry. Similarly, economists are pulled away from their central occupation of "recognizing the implications of choice in a world of scarcity ..."49 Still, economists, as economists, relied on people's "valuations" as "data," but had little to say about what people valued, a core concern of psychologists. For economists, people's values are a part of the "fundamental data" that—along with "technical possibilities of production" and "the ultimate factors of production"—that lead to generalizations.<sup>50</sup> Economists need values for drawing out their generalizations. They also need assumptions about details of some behavior of a "psychological nature" that are "approximations of reality." At times, economics can be founded on the assumption that people act in the role of "Economic Men" who are driven exclusively by self-gain (whether from selfish or selfless motives) or by money, and who are capable of choosing courses of action with some level of "rationality." However, Robbins makes clear that economists utilize such founding sterilized assumptions, which are hardly accurate descriptors of the driving forces of people's decisions and behavior, as "expository devices" that are "first approximations," all adopted "very cautiously." These expository devices "enable us [economists] to study, in isolation, tendencies which, in a world of reality, operate only in conjunction with many others and then ... to turn back to apply the knowledge thus gained to the explanations of more complicated situations."51

Similarly, perfect rationality, which presumes people's choices are completely consistent, was, according to Robbins, "irrational" "just because the time and attention which such exact comparisons require are ... better spent in other ways," which suggests the prospects of an "opportunity cost of 'internal arbitrage." Nevertheless, economic actors may be assumed to be "rational," or even "completely [perfectly] rational," but, again, Robbins insists that economists must keep in mind that such characterization of human decision-making and actions are introduced to facilitate the development of insights that might otherwise be missed with more realistic but complex founding premises about human decisions and actions.

The rationality premise can be justified on two grounds. First, it can enable economists to draw out the implications of choices under conditions of scarcity that might otherwise be missed. Second, human decisions and behaviors must be rational at least in the sense that they are "purposive": "[I]f behavior is not conceived of purposive, the conception of the means-end relationships which economics studies has no meaning," which implies that without a presumption and reality of some level of purposive behavior, there is no "economic phenomenon."53

While economists might sterilize their founding premises, making them less than fully descriptive of the "indisputable facts of experiences" that are at the core of the founding premises of the discipline, "the concern of the economist is the interpretation of reality." However, in developing their interpretations of reality, economists confront an economic problem, that of using their limited resources in developing their theories and deductions.<sup>54</sup> This abstract quest for derived generalizations cannot fully mimic the methods of the hard sciences in two regards:

- First, economists' subjects harbor valuations for what they seek and do. Hard scientists' subjects-e.g., rocks-harbor no capability of valuations (or so we think!).
- Second, economists have an advantage in their inquiries over hard scientists: there is less reason to doubt the "real bearing" of economists' generalizations: "In Economics, ... the ultimate constituents of our fundamental generalization are known to us by immediate acquaintance." That is to say, economists can test their deductions/generalizations (at least in a preliminary way) by daily personal experiences and introspection, which natural scientists can't do: "In the natural science they [generalizations] are known only inferentially."55

Nonetheless, economists must constantly be testing the accuracy and breadth of the applicability of their generalizations and can use the tests for adjusting the underlying premises, uncovering "changing facts," and making predictions possible. However, Robbins argues, theory-some form of abstract thought based on "indisputable facts of experience" must ultimately guide analysis and the development of deductions that are subject to testing with real-world experience, or else the analyses are "purposeless." 56 Even then, any devised predictions must of necessity be applicable to a narrow segment of the course of events, because of the methods used in analysis and because of the great complexity of the course of interrelated and interacting courses of events, which means that predicting "the complete course of an uncontrolled history" is beyond the reach of any science.<sup>57</sup>

To reiterate, the limits of economic analysis is first set by the "relative scales [of] valuation" that are assumed as "data," but that are ever-changing in unknown (and often unknowable) ways as time passes—made all the more complicated by some people having "financial incentives" to actively change the data (valuations).<sup>58</sup> In effect, economists must rediscover their "laws of gravitation from moment to moment"; some natural scientists (physicists) don't have to do that because of the total absence of values at "the core of their theories."<sup>59</sup>

He concludes that economics is likely to lose its force in matters of politics because the interests of political operatives, especially in "larger groups," are hard to pin down, or are "hard to foretell a process of change, with its manifest elements of contingency, persuasion, and blind force," which suggests that in "the last analysis the study of Economics, while it shows us a region of economic laws, of necessities to which human action is subject, [it also] shows us, too a region in which no such necessities operate." Consequently, politics is a sphere into which "we make no enquiry"—at least when Robbins was writing.<sup>60</sup>

Of course, while Robbins may have been a good methodologist, he was not very prescient about the future efforts of economists to generate economic generalizations, using the scarcity framework he articulated. Within two decades of the publication of his classic (in the 1950s and 1960s), Robbins protestations to the contrary, public choice economists began aggressively pushing the boundaries of economics beyond the disciplinary limits Robbins assumed and began studying politics, both in the development of political institutions (rules for voting, for example) and policies that would likely emerge under given political institutional constraints (for example, constitutions), all under the presumption that people did not shed their rational (or purposive) inclinations and pursuit of self-interest when they moved from commercial spheres to "political markets." <sup>61</sup>

Given Robbins' emphasis on how economics' founding premises and methods are inextricably bound to what economists do and know, he would not likely be surprised that, today, the discipline is in a state of some stress, given the substantial evolution, and divergence, in what economists do and have learned since the early 1930s. He would

probably relent on his opposition to the integration of psychology methods to economics, as behavioral economists have shown can be done. Robbins would probably also welcome any effort to find another common denominator that might bring about the unity of purpose that he sought. As said early in this book, my goal is to do for my era what Robbins did for his.

# THE SIGNIFICANCE OF ECONOMICS

At the end of his book, Robbins asks, in so many words, what can be the significance, or redeeming value, of economic analysis for individuals and larger society? Surely, as he argued, it can't be simply the application of the "Law of Diminishing Marginal Utility" (caps in the original) to questions of redistributive income policies, as many economists in Robbins' day, and long before, thought could, and should, be done. While the law may (eventually) apply to individual's serial consumption of units of a good, it is grounded in subjective evaluations that cannot be assessed other than by the individuals consuming the good. There is no reason given by economic theory to expect the marginal value of an additional unit of a good to a poor person will necessarily be greater than it is to a rich person, no matter their absolute and relative levels of consumption. People, and economists, may make interpersonal utility comparisons for any number of reasons, but they have no scientific foundation, or economic foundation, from Robbins' perspective, for doing so.

Similarly, Robbins reasons that economics focuses on equilibrium analysis, but there is no "penumbra of approbation" for equilibrium theory; "equilibrium is just equilibrium." Even freedom, or free markets, is not necessarily an "ultimate good" deemed desirable for itself. There's nothing in economics that suggests that ends, whatever they are, are "good" or "bad," and economics per se is "neutral" between ends (not even on the end goals of wage controls).<sup>62</sup>

In answer to his question on the significance of economics, Robbins opines that economic analysis can help people with this type of question, "If you want to do this, you must do that." The discipline can also help people identify their ends and then help them see the implications of alternative courses of action and, hence, make rational judgments. 63 Robbins deduces, as in the case of tariff analysis, that economics "enables us to see what *sets* of ends are compatible with each other and what are not, and upon what conditions such compatibility is dependent.

And, indeed, it is just here that the possession of some such technique becomes quite indispensable if policy is to be rational" (emphasis in the original).<sup>64</sup> (In making these points Robbins lays out a basic presumption underlying Milton Friedman's methodological position on "positive economics," as we will see in the next chapter.)

Later, Robbins closes his *Essay* with a statement on the rationality premise that seems at odds with his focus on positive analysis: "[Economics] relies upon no assumption that individuals will always act rationally. But it does depend for its *raison d'etre* upon the assumption that it is desirable that they should do so," later adding, "The revolt against reason is essentially a revolt against life."65

In short, Robbins saw economics as having a didactic purpose, to instruct people and policymakers not so much on how people can be expected to behave, but on how they can make their decisions with greater rationality, which makes economic analysis, for Robbins, didactic. Still, Robbins draws up short of arguing that economic analysis instructs people on how they *should* behave (points that Friedman would find unobjectionable).

# CONCLUDING COMMENTS

For Robbins, the core of economics was scarcity, or rather drawing out the implications of people having to make choices, individually and collectively. The discipline did not require an assumption of rational behavior, and certainly not perfectly rational behavior. Perfect rationality could be irrational behavior because of the time and energy, or costs, required to make perfectly rational decisions, which could easily be greater than the gains from greater precision in decision-making, at least beyond some point. However, the discipline did require "purposive" behavior, or else there was no ends/means dilemma for people to resolve. Robbins accepted the use of an assumption of perfectly rational behavior but only as a "convenient" means of thinking through the implications of scarcity—or rather as a means of coping with the scarcity conflicts embedded in thinking itself.

Thus, Robbins touched on the scarcity of people's mental capacities in determining the scope and methods of economic analytics. However, the *scarcity* at the core if the discipline that Robbins had in mind was largely the conflict that existed in the external world between the means and the internal world of subjective evaluations, both taken as exogenous data

imposed on the analytics, not generated within the analytics. Purposive behavior is made necessary in the main when the means/ends dilemma is made the unifying theme of all economic analysis. Material and nonmaterial choices—indeed, all economic methods and generalizations—are made necessary by limited capacities for productive efforts and resources in the external world. The scarcity of people's (neuronal) resources was not central to the efforts of economists to draw out generalizations, in Robbins' view. Such internal constraints were set aside or, more aptly, assumed away for analytical convenience.

Robbins eschewed the issue of the centrality of the human brain is his scarcity paradigm. No doubt, Robbins recognized, seemingly in passing, people's mental limitations, but he doesn't seem to have considered—not directly and with care, at least—the brain's limitations in delimiting what economic actors do, or how economists conduct their investigations, or how economics can and should be taught. People might try to "optimize" in some rough and ready way, but he never explored how the human brain might be asked to do the same, which could affect how people—economic actors and economists—could be bounded mentally in what they could accomplish.

In constructing economics the way he did and being as persuasive as he was with other economists (and textbook writers) in getting them to adopt his scarcity construction of the core of the discipline, Robbins liberated economists to think in terms of maximizing and optimizing decision-making, and then make the leap to perfect rationality, and with an additional leap to perfect maximization and optimization. "Focus": Robbins accepted that data—resources and wants—are revealed through people's market interactions and are given to economic analytics.

The perfect rationality premise facilitated economists' exploitation of mathematics that further severed economists' analytics from "indisputable facts of experience," which Robbins believed had to anchor economic analytics. Not surprisingly, psychologists and behavioral economists (and behavioral and cognitive scientists in general) have jumped on contemporary economists for what they see are gross gaps between the promises of economic predictions and behaviors of real-world people who must deal with the internal scarcity of their mental capacities—before they can hope to come to grips with the external scarcity and the multitude of derivative choices people face.

## Notes

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1. Robbins (1935 (first published in 1932), pp. 1–2, note 1).
 2. As quoted in Robbins (1935, p. 1, note 1.1).
 3. As quoted in Robbins (1935, pp. 1–2, note 1.1).
 4. As quoted in Robbins (1935, p. 2, note 1).
 5. As quoted in Robbins (1935, p. 2, note 1.1).
 6. As quoted in Robbins (1935, p. 2).
 7. Robbins (1935, p. 1).
 8. Mill (1848, p. 120).
 9. Robbins (1935, pp. 2–3).
10. Robbins (1935, p. 3).
11. Robbins (1935, p. 3).
12. Robbins (1935, pp. 4–5).
13. Robbins (1935, p. 6).
14. Robbins (1935, p. 6).
15. Robbins (1935, p. 9).
16. Robbins (1935, p. 9).
17. Robbins (1935, p. 11).
18. Robbins (1935, p. 13).
19. Robbins (1935, p. 16).
20. Robbins (1935, p. 16).
21. Robbins (1935, p. 17).
22. Robbins (1935, p. 17).
23. Robbins (1935, pp. 18–20).
24. Robbins (1935, p. 20).
25. Robbins (1935, p. 25).
26. Robbins (1935, p. 26).
27. Robbins (1935, p. 28).
28. Robbins (1935, pp. 30, 32).
29. Robbins (1935, pp. 33, 34).
30. Robbins (1935, p. 35).
31. Robbins (1935, p. 38).
32. Robbins (1935, pp. 37–38).
33. Robbins (1935, p. 45).
34. Robbins (1935, pp. 45, 47).
35. Robbins (1935, p. 46).
36. Robbins (1935, Chapter 3).
37. Robbins (1935, p. 56).
38. Robbins (1935, p. 59).
39. Robbins (1935, pp. 62–63).
40. Robbins (1935, pp. 72, 73).
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41. Robbins (1935, p. 74).
42. Robbins (1935, p. 74).
43. Robbins (1935, pp. 74–75).
44. Robbins (1935, p. 78).
45. Robbins (1935, p. 86).
46. Robbins (1935, p. 79).
47. Robbins (1935, p. 79).
48. Robbins (1935, p. 79).
49. Robbins (1935, p. 84).
50. Robbins (1935, p. 101).
51. Robbins (1935, pp. 94, 97).
52. Robbins (1935, p. 92).
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- 53. Robbins (1935, p. 93).
- 54. Robbins writes, "The perception and selection of the basis of economic analysis is as much economics as the analysis itself" (1935, p. 106).
- 55. Robbins (1935, p. 105).
- 56. Robbins wrote, "[Realistic studies] may test the range of applicability of the answer when it is forthcoming. They may suggest assumptions for further theoretical elaboration. But is theory and theory alone which is capable of supplying the solution. Any attempt to reverse the relationship must lead inevitably to the nirvana of purposeless observation and record," which means he eschewed application of inductive science beyond the development of basic premises, which, necessarily, can't be deduced (1935, p. 120).
- 57. Robbins (1935, pp. 124–125).
- 58. Robbins (1935, pp. 127, 129).
- 59. Robbins (1935, p. 132).
- 60. Robbins (1935, p. 135).
- 61. See Buchanan and Tulloch (1962) and Buchanan (1975).
- 62. Robbins (1935, p. 143).
- 63. Robbins wrote, "It [economics] can make clear to us the implications of the different ends we may choose. It makes it possible for us to will with knowledge of what it is we are willing. It makes it possible for us to select a system of ends which are mutually consistent with each other" (1935, p. 152).
- 64. Robbins (1935, p. 154).
- 65. Robbins (1935, p. 157).

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