A review of Daniel M. Hausman's *Preference, value, choice, and welfare*. New York: Cambridge University Press, 2012, 168 pp.

IVAN MOSCATI University of Insubria Bocconi University

Daniel Hausman's latest book is about preferences in economics, and the way in which economists use the concept of preference to explain, predict and evaluate actions and institutions. The book is divided into three parts. In part one, Hausman provides an analytical clarification of the notion of preference and the view of choice that are implicit in the practice of mainstream positive economics. In part two, he turns to normative economics and discusses, among other things, the extent to which preference satisfaction can be used to measure welfare. In part three, Hausman reviews empirical investigations of choices and preferences carried out by psychologists and behavioral economists, and explores at a very general level some ways in which these investigations should spur mainstream economists to modify their conception of preference and choice. In this review, I will focus on part one of the book because in my opinion it contains the key and novel tenets of the work.

As already mentioned, in this first part Hausman looks at the ways in which economists use the concept of preference to explain and predict choices, and attempts to make explicit what this use implies about what preferences are and how choice is understood in positive economic theory. This is a typical clarification exercise in analytical philosophy, which leads Hausman to conclude that preferences in economics are "total subjective comparative evaluations" and that mainstream economists understand choice according to what he calls the "standard model of choice".

By defining preferences as "evaluations" Hausman sets himself in opposition to a characterization of them as primitive, barely changeable, and possibly unreasonable desires, a characterization that is usually associated with David Hume's view of human nature. For Hausman, on the contrary, preferences in economics are "more cognitive, more like judgments, than [are] desires" (p. x). They are the output of a cognitively demanding process in which agents take into account not only their desires, but also everything they regard as relevant to their choices, such as moral commitments, beliefs about the consequences of their actions, or the pursuit of consistent behavior. Like judgments, preferences are subject to rational criticism and can be modified as a consequence of this criticism.

Preference evaluations are "subjective" in the sense that they are mental attitudes that differ from subject to subject; and they are "comparative" because "to prefer something is always to prefer it to something else. If there are only two alternatives, one can desire both, but one cannot prefer both" (p. x).

Finally, preference evaluations are "total" in the sense that the agents of economic theory are assumed to compare alternatives with respect to everything that matters to them. This holistic character distinguishes the economic notion of preference from the everyday notion:

In everyday usage, preferences are typically 'overall' comparative evaluations. In an overall evaluation, agents compare alternatives with respect to most of what matters to them rather than [...] with respect to everything that matters to them (p. 3).

In ordinary usage, moral commitments and other cognitively sophisticated evaluative dimensions are regarded as factors competing with preferences in determining choices rather than, as Hausman claims is the case in economics, factors that contribute to the very formation of preferences.

According to Hausman, the characterization of economic preferences as total subjective comparative evaluations draws from the four axioms of ordinal utility theory that constitute the core of positive economics. The first two axioms are mentioned in every economic textbook and require, respectively, that preferences be complete and transitive. The other two axioms, by contrast, are rarely formulated explicitly but, according to Hausman, are implicit in the practices of economists.

Axiom three allows economists to focus on the set of available alternatives and to disregard the context in which these alternatives become available. Hausman calls this axiom "context independence" and formulates it as follows: "Whether an agent prefers *x* to *y* remains stable

across contexts" (p. 16). Axiom four is called "choice determination" and links preferences to choices: "Among the alternatives they believe to be available, agents will choose one that is at the top of their preference ranking" (p. 15).

Although Hausman observes that "there seem be to counterexamples to all the axioms" (p. 17), the goal of this part of the book is not to assess the realism of these axioms but to make clear what they imply about what preferences are in economics. For Hausman, the only plausible way to have a complete, transitive, and context-independent ranking of alternatives is when such a ranking results from a total subjective comparative evaluation of the alternatives. In particular: completeness implies that agents evaluate alternatives in a comparative way; transitivity requires that the agents have carefully and thoughtfully evaluated all alternatives at stake; context-independence may emerge only if agents have evaluated everything that matters to them; while choice determination implies that preferences are not just judgments but motivate action.

While I agree with Hausman that preferences in economics are comparative and subjective, I am not convinced by his characterization of them as total evaluations, that is, as exhaustive and cognitively sophisticated assessments of alternatives. No economics paper characterizing preferences in this way comes to my mind, and the author does not cite any economic texts in which preferences are so defined. In their practice, or so it appears to me, economists seem to be closer to the Humean conception of preferences as desires.

One may reply that Hausman's point concerns what is implicit in the practice of economic theorizing, and that he therefore does not need extensive citations and long reference lists to make his case. It is enough to prove that the four axioms of ordinal utility theory imply that preferences are exhaustive and cognitively sophisticated evaluations. However, I find Hausman's "proof" of this thesis not only too quick—the issue is dealt with in just two pages of the book—but also too loose. It seems to me that if one adopts the loose standard of proof adopted in these two pages, one could draw from the four axioms of ordinal utility theory many different "implications" as to the nature of preferences in economic theory. For instance, in the spirit of the definition of economics as an "inexact and separate science" that Hausman put forward in a previous and much discussed book (1992a), one might be tempted to claim that the four axioms offer an inexact characterization

of selfish desires, which in turn allows economists to provide a unified account of the separate domains of social phenomena where selfish desires predominate as causal factors.

In my opinion, if Hausman had referred more closely to the economics literature and provided more textual evidence in support of his characterization of economic preferences as total evaluations, then this characterization might have been more convincing. Moreover, since I am not sure whether preferences as total evaluations are inexact and separate in the sense of Hausman's 1992 book, I would have appreciated a discussion of the relationships between the theses expressed in that work and those put forward in the book under review. Unfortunately, such discussion is missing.

I also see problems in Hausman's "standard model of choice", that is, his characterization of the understanding of choice that mainstream economists supposedly hold. In presenting this model (see especially pp. 36-37, and Figure 4.1), Hausman introduces a distinction between "basic preferences" (also called "distal" or "underlying" preferences) and "final preferences". The difference between the two is that while basic preferences are independent of "beliefs about properties and consequences of alternative actions" (p. 37), final preferences obtain when the agents take into account these kind of beliefs and adjust basic preferences in light of them. (Actually, Hausman notices that final preferences may have feedback effects on basic preferences, but I will pass over this further complication.)

Final preferences do not determine choices directly and independently. Actual choices depend also on what can be actually chosen, i.e., on constraints, as well as on beliefs of a kind different from those mentioned above, namely beliefs about what alternatives in the preference ranking are available. In sum, at a first level, basic preferences; and beliefs about alternative actions jointly determine final preferences; and, at a second level, final preferences, beliefs about what is available, and constraints jointly determine choice.

A first problem I see in Hausman's standard model is that his statement that economists refer to two different concepts of preference—basic and final—seems to contradict his claim that preferences in economics are univocally total evaluations. So far as I understand, it is the final preferences that are total evaluations. But if this is the case, what are basic preferences, and what is their role in economic theorizing? Could basic preferences be interpreted as desires? It seems that this is not the case, since basic preferences are also cognitively sophisticated evaluations that are limited only by their failure to take into account beliefs about the properties and consequences of alternative actions. Probably, basic preferences could be characterized as "almost-total subjective comparative evaluations" (although this is not the author's terminology). But still, Hausman does not clarify sufficiently the relationship between basic and final preferences, nor explain how to conciliate the distinction between them and the characterization of preferences in economics as total evaluations.

I also find the role of beliefs in the standard model problematic. In the first place, the very distinction between "beliefs about properties and consequences of alternative actions" and "beliefs about what is feasible" seems to me a muddy one. For instance, is my belief that I cannot fly, no matter how vigorously I flap my arms, a belief about properties and consequences of my actions or a belief about what is feasible? In addition, the distinction between the different functions that beliefs about alternative actions and beliefs about what is feasible perform—the former interacting with basic preferences to determine final preferences, the latter interacting with final preferences to determine choice—seems to me somewhat arbitrary. More generally, if we conceive of preferences as cognitively complex evaluations (be they "total" or "almost-total"), how can we really keep preferences and beliefs apart?

A final problem for the standard model as a characterization of how mainstream economists understand choice is that, as Hausman acknowledges, its causal explanatory structure is at odds with the as-if interpretations of economic theory that most mainstream economists embrace. Consider for instance the case of expected-utility theory, which is explicitly discussed by Hausman (pp. 37-45). If we frame expected-utility theory in the terms of the standard model, we can say that an agent's preferences over the outcomes of gambles are his basic preferences, while his beliefs about the probabilities of the outcomes are his beliefs about the alternative actions. These preferences and beliefs jointly determine the agent's preferences over gambles, which are his final preferences. Therefore, according to the standard model, expected-utility theory would explain the agent's preferences over gambles as causally derived from his preferences over outcomes and his beliefs about probabilities. However, this is not the way expected-utility theory is presented and usually interpreted in mainstream economics. The axioms of expectedutility theory concern the agent's preferences over gambles, i.e., his final preferences. Therefore, in expected-utility theory final preferences come first, and are not causally determined by preferences over outcomes and beliefs about probabilities. On the contrary, these latter preferences and beliefs can be identified only on the basis of final preferences over gambles. In the mainstream interpretation, then, expected-utility theory only says that, under certain assumptions, preferences over gambles can be represented as if they derived from the maximization of a linear function combining preferences over outcomes and beliefs about probabilities.

Hausman criticizes this as-if interpretation of expected-utility theory. He argues that by taking preferences over gambles as given, the as-if interpretation prevents economists from investigating what determines these preferences, and offers no guide about how to modify expected-utility theory when it is violated. (This criticism is in fact an application of Hausman's famous "under the hood argument" against methodological instrumentalism; see Hausman 1992b.) In many respects, I agree with Hausman. However, if mainstream economists understand expected-utility theory according to an as-if interpretation that is in clear opposition with the causal structure of the standard model, how can we claim that this latter model characterizes the view of choice that mainstream economists hold? In fairness to Hausman, I add that his application of the standard model to game theory in chapter 5 is much more convincing and makes that chapter one of the most appealing of the book.

More generally, in discussing the standard model Hausman seems to pursue two different goals at the same time: an analytical clarification of the view of choice held by economists, and advising them in a prescriptive spirit about the view they should adopt. Although both goals are perfectly legitimate, I think that Hausman does not distinguish them with sufficient precision, and this generates some confusion for the reader of the book.

In conclusion, in his new book Hausman discusses preferences in economics with his usual philosophical sophistication and a wealth of acute insights. However, it seems to me that the book leaves many issues open.

REFERENCES

- Hausman, Daniel M. 1992a. *The inexact and separate science of economics*. Cambridge (UK): Cambridge University Press.
- Hausman, Daniel M. 1992b. *Essays on philosophy and economic methodology*. Cambridge (UK): Cambridge University Press.

Ivan Moscati is associate professor of economics at the University of Insubria, Varese, and teaches history of economic thought at Bocconi University, Milan. He is currently working on a research project on the history of utility measurement. The first installment of the project is forthcoming in *History of Political Economy* under the title "Were Jevons, Menger, and Walras really cardinalists?: on the notion of measurement in utility theory, psychology, mathematics and other disciplines, ca. 1870–1910".

Contact e-mail: <ivan.moscati@uninsubria.it>