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Book Review

How We Misunderstand Economics and Why it Matters: The Psychology of Bias, Distortion and Conspiracy, David Leiser, Yhonatan Shemesh. Routledge, London (2018).

How lay people think and feel about the economy, and which economy-related expectations they hold is not only of scientific interest but also substantially influences economic results at the individual and systemic level. As empirical studies (e.g. Buch, 2018; Fornero and Lo Prete, 2017) show, the acceptability and effectiveness of economic policy measures and reforms also depend on how well citizens understand them. Especially in times of populist movements, highly emotionalised election campaigns (see e.g. experiences in connection with the Brexit Referendum) and 'alternative facts' or 'fake news', such an understanding is indispensable for the role of voters in order to be able to adequately assessing election programmes. Against the background of these considerations, the book written by David Leiser and Yhonatan Shemesh is timely and valuable for politicians, policy advisors, public relation experts, and particularly for economic educators in research and practice – the perspective that I will adopt in this review.

Both authors are specialists in their respective fields. David Leiser is a renowned researcher in Economic Psychology with an emphasis on investigating how non-economists understand economic issues. He is past-president of the Economic Psychology division of the International Association of Applied Psychology (IAAP), a former president of the International Association for Research in Economic Psychology (IAREP), co-founder and deputy director of the Center for Research on Pension, Insurance and Financial Literacy at Ben Gurion University, Israel, where he is Full Professor of Social and Economic Psychology. Prof. Leiser holds a BSc in Mathematics from the Hebrew University in Jerusalem, a MSc in Adult Education from the University of Illinois at Urbana - Champaign, and a PhD in Psychology from the University of Geneva, Switzerland, where he served as Research Assistant to Jean Piaget. He held visiting positions at the University of Chicago, MIT, Yale, Harvard, and Paris II (Panthéon - Assas) and Paris V (René Descartes). Yhonatan Shemesh holds a BA and MA in cognitive science from Ben-Gurion University of the Negev. His research focuses on the ways the human evolutionary cognitive endowment affects how people think and act in the modern world.

In their book, Leiser and Shemesh state that their aim is to "document lay beliefs about economics and try to expose their source" (p. 1), with an emphasis on macroeconomics. The ten chapters of the book can be grouped into three parts: The first three chapters (part one) are of introductory nature, whereas the chapters four to eight (part two) focus on specific aspects of how lay people (mis-) understand economic phenomena. In the final two chapters (part three), the authors explore some of the practical consequences that follow from their insights.

In the first chapter, Leiser and Shemesh argue that laypersons typically have a poor understanding of economics, and – even worse – are unaware of their insufficiency in the majority of cases. This is not surprising per se, as such a phenomenon can also be observed in many other academic fields (e.g. Shtulman, 2017; Sloman and Fernbach, 2017). However, in the case of economics this is of particular concern because people's economic beliefs do not only guide their behaviour but also affect public policy, especially in democratic regimes. The authors illustrate this problem with many real-life cases, for example from monetary, fiscal and social policy, and they hypothesise that these shortcomings are not caused by mere ignorance but are rooted in deeper and systematic biases of comprehension and comprehensibility of this specific domain.

The following two chapters further explore this hypothesis. Chapter 2 explains why economics is so difficult to understand by outlining the types of reasoning that characterise this domain. Those characteristics include the focus on aggregate data, the inclusion of direct and indirect effects, and the consideration of equilibrium as an explanation. These features stand in sharp contrast to everyday thinking, which could be portrayed as individualistic, direct and static. In addition, laypeople judgements typically hinge on moral considerations, which professional economists (at least those trained in a positivist tradition) usually try to avoid. Alas, as the authors further explain in chapter 3, the type of reasoning common in economics does not come naturally with the human cognitive makeup, and has developed rather late, both phylogenetically and ontogenetically. Inconsistencies have to be expected due to limited knowledge, unavailability of many of the relevant economic concepts and restricted mental processing power.

If not based on knowledge and cognizant reasoning, what then drives laypeople's understanding of economic phenomena? This question lays at the heart of the chapters that form the second part of the book with a focus on different contents and sources of laypeople's economic thinking.

Chapter 4 is concerned about intuitive theories of unemployment and inflation, two macro-economic phenomena that lay people care about. In both cases, the available empirical evidence supports some of the claims from the previous chapters, confirming that

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when people are asked about the causes of unemployment and inflation, they come up with simple and direct explanations and tend to omit more sophisticated systemic ones.

Whereas chapter 4 addresses those concepts in isolation, chapter 5 looks at how their relationship is perceived. This relationship is known as the famous ‘Phillips Curve’, a single-equation economic model, which describes a trade-off between rates of unemployment on the one hand and wage or price level changes on the other. Using this example, the authors make clear that laypersons divide economic variables into good and bad ones, and group them according to this feature. This leads to a phenomenon, which Leiser and Shemesh term the” good-begets-good heuristic”, meaning that “the economic world is viewed by the public as a largely undifferentiated whole, one that can be in more or less good shape, more or less healthy” (p. 59). Again, this is very different from experts, who assort variables as – rather neutral – elements of complex models.

Regardless of their accuracy, heuristics are a popular way to understand the world and cope with bounded rationality and uncertainty in many fields (e.g. Gigerenzer et al., 2015), and so are metaphors, which are at the centre of chapter 6. As the authors state, metaphors “allow us to understand and reason about novel phenomena by recourse to prior experience in seemingly unrelated domains” (p. 61). Metaphors are ubiquitous in economic discourse, be it in the political arena or in the media, and non-economists get most of their information from these sources. But like heuristics, metaphors can be fundamentally wrong, and thus misdirect both, economic understanding and action. In this chapter, the authors discuss a number of such metaphors, of which the maybe most widespread but misleading one is the analogy between a government budget and a household budget.

Chapter 7 addresses a third way of dealing with the pitfalls and intricacies of complex economic phenomena: Ideology. By using the example of everyday notions of capitalism, the authors show how ideology works as a kind of cognitive shortcut. More specifically, they address how lay people perceive the efficiency-equality trade off, and illustrate how their perceptions are influenced by personality traits such as locus of control.

The last chapter of part two, chapter 8, is dedicated to lay conceptions of money and wealth. Based on the well-known account of the relations between commodity and fiat money, Leiser and Shemesh present evidence that those notions again vary systematically from the way economists think. This evidence particularly suggests that “[t]he ways money functions in a modern economy are not clearly differentiated by its users, and this confusion encourages an irrational attachment to the medium”. Given this state of affairs, they conclude that “an integrative and clearly articulated account of lay understanding of money may be unattainable” (p. 108).

As already mentioned, the third part focuses on the practical implications. In chapter 9, the authors explore the possibilities for economic and financial education. Here they summarise recent literature reviews and meta-analyses, indicating a rather low success rate of such efforts. Consistent with their findings on the characteristics of lay conception, Leiser and Shemesh therefore warn against overly optimistic expectations of such educational initiatives. Alternative remedies are then discussed in the final chapter 10. In this chapter, the authors recap their line of reasoning and provide tentative recommendations for public policy communication and educational activities. Not only do they underline the importance of trust as an asset that authorities have to earn, but they also offer an interesting distinction between economic issues that can be explained to the public (e.g. the often misunderstood fact that an overdraft on a bank account is equivalent to a loan) and those that cannot, or are difficult to, explain (e.g. indirect effects of different pension systems). Here they argue for an effective combination of communication or education on the one hand, and state regulation on the other. However, they also note that there is only few confirmed knowledge on how such a combination should look like, and consequently stress the need for extensive and diligent research to inform public policy in this regard.

How We Misunderstand Economics and Why it Matters is not a book about economic and/or financial education in the narrow sense, even though relevant issues are sometimes addressed directly, especially in the concluding chapters. The considerations are not founded on an educational or instructional theory — and the authors do not pretend this anywhere. Nevertheless, the book offers plenty of "food for thought" with regard to economic educational issues, of which I would like to highlight the following:

(1) The findings reported in the book once again demonstrate how important it is to consider what people think and know about any given domain in order to affect their behaviour, including their learning. Even if it is now almost a pedagogical truism that the linkage to existing prior conceptions has to be regarded as *the* central influencing factor for successful learning, there have been very few research studies to date that focus on this connection for economic and/or financial education (e.g., Aprea, 2015; Davies and Lundholm, 2012). The book further encourages this type of research and provides useful conceptual and empirical groundings from a psychological point of view.

(2) Given the domain-specific difficulties and hurdles, the authors very clearly define the scope of possibilities for economic and/or financial education. Although one can certainly disagree as to where exactly the limits of these possibilities lie, this view is not only modest but also realistic and less susceptible to fads and crazes in educational policy. In particular, they sharpen our awareness of the need to combine educational and regulatory measures in a meaningful way, instead of dwelling in unproductive ‘trench warfare’ of an either/or situation frequently found in ideology-driven political (and sometimes even scientific) discourse.

(3) In the preface of their book, the authors state that they use neoclassic economic theory as a reference. They justify this decision by arguing that convenience and familiarity guided their choice, and “as humble psychologists”, they are not in the position to endorse a particular school (see p. xiii). Again, I very much appreciate this modesty as a sign of scientific integrity and lack of any intrusiveness or pretention on part of the authors. However, in my view their findings neatly fit within the current criticism on mainstream economic theory and the discussion on the way economics as an academic discipline should be framed, investigated and taught in order to better align with economic reality, and ultimately make a better society. In turn, this discussion, as it is purported, for example (but not exclusively), by proponents of behavioural economics (e.g., Thaler, 2015), is highly relevant for economic education insofar as it directly affects the question of its goals and contents, and (even though more indirectly) also the way it is taught.

The book by Leiser and Shemesh is ambitious also from a didactic point of view. Its language is easy accessible, and the text is supplemented with vignettes, narratives and cartoons to illustrate various points.

In sum, *How We Misunderstand Economics and Why it Matters* gives an excellent overview of current empirical findings in this field, mostly coming from economic psychology. It is provoking in the best sense of the word: It challenges conventional ideas on what "the economy" actually is, stimulates new ideas for research and practice, and inspires the reader to think for him- or herself. I recommend reading this book to everyone concerned with the education of economically well-informed and responsible citizens.

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