Conceptual progress in economics. Abstraction of social kinds versus idealization
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Introduction

Questions
I got interested in Austrian economics as I taught textbook economic theory to secondary school children. They would ask me questions I could not answer well enough, that is, not to my own satisfaction. Why would any entrepreneur try to engage in risky activities if the end state of perfect markets is zero profit anyway? The simple answer I gave was that the world is not perfect and that therefore entrepreneurs are lucky bastards. Most pupils unconsciously favour socialism by intuition, so to them it sounded plausible enough. But occasionally a pupil would ask why a world would be judged ‘ideal’ if no one could earn any profit in its perfect markets. How could an ideal state provide for the necessary incentives to innovate, to serve customers, and what is the point of corporate tax without profit? Why, indeed, having corporations or smaller enterprises anyway if the ideal is this type of perfection?

My own further puzzlement ensued about economic theory. This happened only after such pupils (who sometimes struck me as brighter than myself) had posed these deep questions about the economic order. Why do free market economists describe markets, in consequence, as perfect if the allocation proceeds under a regime of complete lack of any incentives. The presence of incentives provides a necessary condition for capitalism; so why qualify that as imperfect?

The Austrian mechanistic approach to economics gives an answer to these questions. The classical approach made a black box of the mechanism underlying market phenomena, but the Austrians opened it. The classical theory disregarded, by ‘assuming away’, as it were, the question of how people deliberate. Ludwig von Mises and Friedrich Hayek asked questions about the dynamics of decision making by individual agents if these entered trade. Their forerunners, Carl Menger and Eugen von Böhm-Bawerk, had spelled out the subjective basis of the market process and applied the subjective value theory to capital and interest, respectively. Richard Cantillon may have been the first economist to stress the entrepreneurial aspect of the market process. (Surprisingly, Menger, in his turn, had Irish intellectual descent, as Cantillon had emigrated to France from Ireland.) Further back, the Scholastic philosophers had asked questions about the role of human action in a social whole. They were the followers of St. Thomas Aquinas who had discovered ‘competitive price’ (and his own version of the Law of Costs).

As we shall see, the subjective approach first focuses on what is directly visible to anyone. It starts with phenomena as these appear familiar to the individual and with personal intentions, visible by introspection. Next comes an explanatory story about the deeper lying mechanism. This raises the question of how a

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theory about the mechanism can be empirical. The mechanism, which describes how human action translates into market outcomes, does not seem to be empirically accessible in any easy way, either to a layman or a scientist. This is different with the (quasi-)observable results of the mechanism, however, like objective (i.e. market-) prices, profits, the distribution of wealth and poverty. These can be known by lay observation. So how can an Austrian theory be at the same time scientific and empirical? My thoughts ran straight into a Methodenstreit.

Related questions focus on explanation and prediction. In ‘neoclassical philosophy of science’ empirical tests are the alpha and omega of theory appraisal. It seemed to me that a mere empirical approach to comparative theory appraisal would not help to demarcate the truth content from the falsity content of Austrian explanatory theories. Does ‘explaining better’ also mean ‘being more truthlike’? Is it possible that the theory, which explains less satisfactorily, nevertheless is more truthlike? Is the concept of ‘explanatory progress’ – in contrast to ‘predictive progress’ – epistemologically fruitful in economics?

The first question this thesis deals with is what makes Austrian theory so different from classical and (much of) neoclassical theory. After all, all three lines of research seem to bring forth intellectuals with some degree of (neo-)liberal political orientation. Clearly, attention for the ‘economic mechanism’ is what sets Austrians apart. Böhm-Bawerk probably was the most polemical defender of the method. He engaged in lengthy narratives – as I call these – about the reasoning steps an entrepreneur must follow if his business is to survive. He did so at a price: Knut Wicksell and many other later economists looked down on his apparent lack of mathematical dexterity. But I dismiss Wicksell’s criticism. I believe (and I hope to convincingly show in chapter II) that Böhm-Bawerk was able to insert a fair amount of complexity into his economics in order to highlight an aspect of economic life, which would otherwise have been ‘assumed away’, that is, remained exogenous.\(^2\) Inspired by the Mengerian emphasis on entrepreneurial action, he aimed at a level of complexity so as to endogenise, for instance, the demand for capital.

My choice for Böhm-Bawerk as protagonist of mechanistic reasoning stems from my original idea to track down progress in economists’ concept formation. Böhm-Bawerk had introduced time as a constitutive variable into economic theory, such that positive interest had to be seen as inherent in all trade and in the investment period needed to produce something ‘capitalistically’. A stricture of his interest and distribution theory is that his model economy had to be in a stationary state. But the stricture was helpful, because many had thought that interest was inherent only in a growing economy (like for instance Jevons – the ‘English Böhm’). Thanks to Böhm-Bawerk we know that interest is positive even when economic development is at a standstill. Wicksell, in turn, had used and praised this idea, but wanted to make the theory dynamic. The Swedish effort to insert dynam-

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\(^2\) The expression ‘to assume away’ for disregarding variables by the introduction of a clause is sometimes used in economic methodology. It rightly reveals the deliberateness of the disregard. This is the reason why I shall copy this use throughout this thesis.
ics into the picture is a clear attempt to progress on Böhm-Bawerk. The original idea, then, was to get an insight into the cognitive patterns involved in such a progressive step. But it turned out too ambitious for my mainly philosophical thesis, as I stranded in highly complex Cambridge controversies and capital reversal problems.

What remains: a scrutiny of Böhm-Bawerk’s magnum opus as a statue of early Austrian analysis and Wicksell’s interpretation of it; an inquiry into the epistemological implications of their interaction in the light of the Methodenstreit; an evaluation of the apparent essentialist inclinations related to abstraction in Austrian thought; an investigation of how issues of truth and falsity in abstract and in idealizational theorising may bear on policy issues; and finally, an endeavour to stretch the feasibility of essentialism in social science up to the point where it is on the brink of losing plausibility.

The way in which we can resolve issues of the truth of merely explanatory theories has a bearing on epistemology. In order to cope with the inherent complexity of the socio-economic world scientists exercise two strategies. They (1) abstract from initial descriptions of this world – that is, they theorise – and they (2) hedge their theorems with clauses. The clauses somehow restrict the domain of application of the theorems, very often to ideal states of affairs that may never become actual. It seems to me that both the first strategy – abstraction – and the second strategy – this use of clauses with the aim to hedge a theoretical proposition – end up with ideal states or model worlds. It is therefore not clear whether the distinction between ‘idealization’ and ‘abstraction’ bears philosophical fruit. There is a lack of clarity is underlined by the fact that I occasionally came to speak with economists who confuse the two.

An example shows how abstraction and idealization can do similar jobs. The abstracted perfect circle, for instance, is a mathematical object and the really existing round objects in the world have properties due to which they are at best only near-perfect. The conceptualisation of the mathematical object clearly is the result of abstraction. But it is at first sight unclear whether or not the idea of the same perfect circle is also produced by the insertion of a (false) clause. If we insert a clause in our theory, counterfactually saying that all properties, which make the real life object less than perfectly circular, are absent, that edges are infinitely smooth, etcetera, are we then not engaged in the same epistemic operation as abstraction? In other words, is ignoring well chosen spatio-temporal detail not the very same as inserting clauses that falsely describe the world as different than it really is? It seems so. The perfect mathematical object appears to be conceived either way.

But the answer depends on how the clause is specified. It will be shown, in chapter III, that idealization and abstraction are in at least one sense the inverse (not the opposite) of each other. In what Kuipers calls the internal phase of the development of scientific research programs, more specifically in the evaluative phase, scientific improvements often proceed by what is generally coined *Idealiza-
In seeking increasing success, after a new idea has broken through in the heuristic phase, specific theories for relatively limited domains are subsequently developed. Every step consists of taking aboard causally relevant factors that were neglected in the previous theory. The theories share a core idea that constitutes the scientific dogma. In chapter III I shall judge the labelling ‘I&C’ as inadequate due to its inconsistency. Concretisation implies the move toward a less abstract level of description, so the counterpart of concretisation is abstraction, not idealization. The terminology stems from Leszek Nowak, in whose tradition much of current research into isolational practices stands. Nowak combined abstraction with reduction, potentialisation, and transcendentialisation; terms alternatively categorised as soft and hard deformational procedures.

But there is a much more interesting point to make about idealization than internal consistency of labelling. By its very nature, idealization is involved with a ‘move away’ from the actual state of affairs, while abstracted propositions tend to ‘move toward’ the actual world. However, the use of so called vague clauses is very similar to abstractive reasoning. My conclusion is, first, that these vague clauses are characterised by the open-endedness of the list of false assumptions and, second, that idealization be better reserved for the use of clauses that list a finite number of false assumptions. The use of well specified clauses of the latter sort is part of a very different methodology than ignoring detail. I present a model of these two epistemic orientations that I call idealization and abstraction, respectively. I shall show that idealization necessarily involves falsity and abstraction does not. However, both may help constitute true theories, be it in very different ways.

One issue calls attention for the next. Thus, issues of truth and falsity also bear on a more pressing matter. Social scientists give policy recommendations. As dominating nature requires knowledge of future possible states of the world, so does policy in the social realm. In other words, social scientists cannot escape the pretension to be capable of predicting the future, at least if they give policy advice. They seem to know what will happen if we intervene and what if we do not. Social predictions must be true for their policy relevance. As we have to understand how predictions are assumed to be true, indirectly, the difference between idealization and abstraction in social theorising turns out to be crucial for questions of policy.

This brings me to my second research question. How can social science lead to true theories if it is loaded with idealizational practices (especially when prediction comes in)? The answer I give in chapters III and IV makes use of the interesting fact that, although idealizations involve falsity, the propositions in which idealizations are formulated need not be false. Another finding in chapter III is related to this. Abstract theorising may threaten policy relevance if the complexity of the theory, relative to the scientific problems to be resolved, is too low. But insofar as

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4 Nowak (1989)
5 Siegwart Lindenberg has shown this in his plea for decreasing abstraction. See Lindenberg (1991).
policy recommendations must be based on true claims, it is important to see that the epistemic process of abstraction tends to lead to more truthtlike propositions.

The third question is what is that is abstracted from the superfluous. Böhm-Bawerk abstracted market mechanisms from the manifold appearances of economic reality. These were the key explanatory elements required to highlight the economic process. So what are these mechanisms that translate intentional decision making into aggregate outcomes? To use Mäki’s terms, which objects make part of the ‘ontic furniture’ of the world Böhm-Bawerk was redescribing.

The fourth question is how the apparent practice of theoretically abstracting can be squared with the philosophical trouble essentialism is known to lead to. After all, abstraction is embroiled with the idea of a prior world conception. This world is taken to deliver (perhaps after some torturing) the kinds that help explain. More specifically, how can research interests and prior conceptualisations be neutral as regards the objectively existing (social) kinds Böhm-Bawerk, but also present-day economists, try to discover? The answer, of course, is that research interests and prior conceptualisations aren’t neutral at all. But, as I believe, one can detect essentialist inclinations in economists’ work. Some evidence toward this claim is given in the intermezzo, which connects the later, more philosophical chapters to the first two, more economics chapters. The last chapter makes a start in solving the puzzle (1) how this tacit essentialism can be conceived of as rational scientific behaviour, and (2) how the importance of ‘subjective’ interests and perspectives can be honoured without rejecting a mild essentialist account of science. I am afraid it is only a start, but I trust it is a worthwhile attempt.

Structure
This thesis can be slimmed in reading by taking the diet version: skip chapter I and section 4 of chapter II, and appendices 1 and 2. This option may be appealing to pure philosophers who are bored by economics. The discussion of Böhm-Bawerk’s economic theory is relevant for the rest insofar as later chapters repeatedly refer to his work. The conclusions to these first two chapters will give them sufficient ammunition to understand the points I want to develop later.

The first chapter relatively obediently rewrites the magnum opus of Böhm-Bawerk, pinpoints crucial concepts, and describes his polemic reasoning strategy. Much critical analysis is not offered in this opening chapter, but it is in chapter II. My criticism is directed not only at Böhm-Bawerk, but also at his interpreter and mathematical translator, Knut Wicksell. In part, Böhm-Bawerk will in fact be defended against his Swedish admirer—critic. The essentialist metaphysics is the main point of discussion. Böhm-Bawerk’s quest for theoretical unification is rooted in his metaphysics. Chapter III treats how a strict distinction between abstraction and idealization can clear up issues concerning policy relevance of theories that are hedged and that work with – as it is often called – ‘closures’. Chapter IV illustrates the usefulness of the distinction by four examples, one from Wicksell’s attempts to insert dynamics into the theory, one about the concept of involuntary unemploy-
ment in Keynesian theory, another on policy making aiming to cure inefficient markets in health care, and yet another on ethical consumption. Finally, chapter V deals with the sturdy problem of essentialism in social theory.

Appendices 1 and 2 present some further refinements of Böhm-Bawerk’s theories that would otherwise overload chapter I. Appendix 3 disentangles meta-concepts of essentialism and holism. It serves to encounter straw man versions of essentialism, which pop up here and there and make a misconceived attempt to attack essentialism. There are many good ways to attack strong versions of essentialism, but the bad ones should be discarded. Nevertheless, the third appendix deals with only one of the misconceptions.