for causal connections is not also of importance for a social scientist. Risjord points out that social scientists often profit from building causal models; and he further discusses the general question of the existence of causal laws governing human societies.

Many of the problems discussed in Risjord's book are quite complex; hence it is not the kind of introductory book that is easily accessible to complete outsiders. However, for people with some grounding in philosophy and ways to account for human societies, the book constitutes a nice compendium of philosophical problems specific to the social sciences, to the understanding of human communities and to the understanding of us humans as members of such communities.

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Barry Dainton – Howard Robinson (eds.): *The Bloomsbury*Companion to Analytic Philosophy

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"In this Companion we provide a guide to analytic philosophy's past, present, and future; we also attempt to specify what – if anything – is genuinly distinctive about it" (p. xi).

With these words of editors Barry Dainton (University of Liverpool) and Howard Robinson (Central European University) starts *The Bloomsbury Companion to Analytic Philosophy*. After passing a short Introduction and Preface, the book continues with three parts dedicated to the past, present and the future of the analytic philosophy.

Part I: History, Methods, and Problems. The main topic of the first part is the history, or we can say the stories of the most well-known figures from the analytic philosophy. This part is written by the editors Dainton and Robinson and begins with a description of changing opinions about the world in the middle of the 19th century (the story of Francis Bradley and his holistic view of the world). After this short introduction, there appear George Edward Moore, Bertrand Russell and Gottlob Frege. The author of these chapters, Barry Dainton, focuses on the famous problems and possible solutions to them (proposed by each of the authors) connected with the beginning of the analytic philoso-

phy. The problems include, for example, the problem of the nature of some entities (numbers), the class paradox, reference, propositions, etc.

The story of the history of analytic philosophy continues with description of another famous figures and problems from the past. To mention just a few, the chapter concerns Vienna Circle, Ludwig Wittgenstein (the *Tractatus* phase and, of course, later Wittgenstein, each of these described in separate chapters), Willard van Orman Quine, Donald Davidson, Saul Kripke, Hilary Putnam and so on. We can see the lain of the emerging problems and attempts to solve them – the problem of meaning, method, descriptions, truth conditions, etc.

In general, we can say that the first part provides a detailed and complex outline of the most fundamental ideas and problems discussed in the beginning of the analytic philosophy; many of them, however, remain still topical in the present discussions.

Part II: Current Research and Issues. As the title suggests, the second part deals with the actual themes and problems connected to the cotemporary analytic philosophy. The crucial attribute of this chapter is that each part of it is written by different authors, specialists in a particular field. So we can read the contribution about the philosophy of mathematics and logic (Mary Lang), the philosophy and language (Barry C. Smith), meaning and normativity (Richard Gaskin), the philosophy of science (James Ladyman), metaphysics (E.J. Lowe), knowledge (Bryan Frances and Allan Hazlett), causation (Helen Beebee) and many others.

Since it would be very difficult to discuss all of these parts I will rather deal with two of them in some detail – the one concerning the philosophy of language and the one concerning the philosophy of science.

Let discuss the philosophy of language chapter first, written by Barry C. Smith, professor of philosophy and director of the Institute of Philosophy at the School of Advanced Study, University of London.

At the very outset of his contribution, Smith introduces this field and sketches the main topics. He puts it as follows:

Philosophers of language in the analytic tradition have mainly focused their attention on two central concerns: the ability of language to express and communicate our thoughts; and the relation of language to reality. Broadly speaking, both issues bear on the language's representational powers: its ability to encode thought and portray aspects of reality. (p. 201)

According to Smith it is also very "important to distinguish language from communication. Communication can be nonverbal" (p. 202). The crucial issues include the meaning of words, identification of words with noises or written tags and, of course, the way of connecting words to the sentences. Various approaches to these problems are illustrated by the works of Willard van Orman Quine, who "think[s] of language as sets of well-formed word-strings, where words are conventional sound-meaning pairs and, well-formedness is licensed by the grammar rules for the language in question" (p. 204); and Noam Chomsky who criticised Quine's conception because, according to him, sentences are not only word strings and their structure is not linear. This debate between Quine and Chomsky serves as an introduction to the more interesting topic, namely the problem of demarcation between semantics and pragmatics.

Smith introduces two main approaches to this problem. On the one hand, we have Paul Grice and his theory stressing that "people always mean what is said by uttering the sentence – that is, it is always part of what they assert – but they may mean or assert more besides: (8) I'm tired ... For Grice, I have asserted that I am tired. That is, what is said by uttering (8), and what is meant over and above what is said depends on a conversational implicature that the hearer must infer from what was said and the background information" (p. 215). On the other hand, we have Francois Recanati and his attitude that "what is said is not identical to what is determined by the meaning of words in a sentences and its linguistic form, but rather is something pragmatically determined by what is said by the utterance in context" (p. 221). Concerning this distinction, Smith writes:

The distinction between semantics and pragmatics is the subject of a large controversy, and it should be said at the outset that perhaps there is no fully satisfactory unifying account of the relations between uttering and meaning, nor any single theory that can take care of all examples. ... Extremes include uttering without meaning anything at all (babble), and meaning without uttering; for example, when you did not utter a sound you may have meant something by your silence. (p. 214)

The second part of this chapter deals with one of the most respectable branches of philosophy these days: the philosophy of science (written by James Ladyman, the University of Bristol).

As in the previous case, the author firstly focuses on the historical introduction and then discusses four important parts of the philosophy of science:

scientific methodology, the metaphysics of science, the epistemology of science and the philosophy of science. Importantly or not, Ladyman does not touch the philosophy of social sciences.

In the first part of this entry, Ladyman discusses the different approaches to scientific method. On one hand, there is, historically speaking, Bacon's inductive method. On the other hand, we have Popper and falsificationism. These different approaches to the scientific method are nailed down by Kuhn and his rejection of the (one) typical scientific method. As the last example of different approaches to the discussion about scientific method, the author mentions Nancy Cartwright who "argues that science is an overlapping patchwork of models without the kind of hierarchy supposed by reductionists and physicalists, and without even consistency between different parts of the whole" (p. 262).

Beside the problem of induction, this section aims at related problems, such as underdetermination of the theory by data, the problem of probability and its relation to the actual events in the world or the problem of theoretical terms and their reference to the objects in the world.

The second bigger part of this chapter (*The Metaphysics in Science*) discusses mainly the problem of laws. It is stated that "[r] ecent discussions of laws of nature has focused on the metaphysics of laws. What is a law of nature and do they differ from generalizations that happen to be universally true, like no gold sphere is bigger than earth?" (p. 265). The problems of laws are also discussed from another point of view; it can be said that some alternatives are provided: "new approaches" to the same questions. For example, we can mention David Lewis' approach: "Laws are the theorems and axioms of deductive systems that achieve the best combination of simplicity and strength" (p. 265). Unfortunately there is a problem with clarification of the term "the best combination of simplicity and strength".

Another approach is that of Bas van Fraassen and Nancy Cartwright who are "sceptical about the traditional views of the importance of fundamental laws in the analysis of scientific theories. Cartwright and John Dupre are well-known critics of the idea that science is unified. Cartwright argues that the relationship between theories, models, and reality undermines what she calls 'fundamentalism' about laws. ... Such a view is often defended in philosophy of biology where it frequently seems as if a single scientific term such a species or gene is understood differently in different parts of the science, and for which pluralism about meaning and reference is proposed" (pp. 266-267).

The part entitled *The Epistemology of Science* is mainly dedicated to the debate between the realists and antirealists. The core of this part is focused on

the arguments in favour or against realistic approach. The author describes the famous argument against realism which is dealing with the success of science and the reference of the terms.

Part III: New Directions in Analytic Philosophy. Last section of this book deals with the actual challenges in analytic philosophy. According to the authors (Dainton, Robinson), the situation in analytic philosophy is not so bad as many people might think. There are still many different problems and challenges that need to be resolved and that can be considered as interesting in many different areas such as mathematics, logic, cognitive sciences etc.

In the end, we would like to mention a few sentences as closing remarks. We can say that this book gives a really good introduction to the history and main problems of the analytic philosophy. The fact that each field is described and analysed by a specialist makes this book really helpful and clarifying for students of philosophy. This book also includes a chronology of key events from the history of analytic philosophy and the dictionary of the important terms and concepts.

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