

Explicating Explication: Carnap's Ideal

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Carnap's Ideal of Explication and Naturalism is the second book on Rudolf Carnap's philosophy edited by Pierre Wagner for Palgrave Macmillan's series *The History of Analytic Philosophy*. The collection of essays is important for several reasons both for philosophers and historians of philosophy, but some parts of it will also be valuable to anyone interested in general scientific methodologies. I shall first survey the theme in order to locate the collection within the recent philosophical discussion then I will consider the volume itself.

Forty five years after his death, Rudolf Carnap's philosophy is once again "on the table" and is getting more attention than ever. Though one could disentangle the many different connections between the ongoing rehabilitation of Carnap and the recent wave of interest in the history of analytic philosophy, I shall mention only one important reason to deal with Carnap's thoughts.

In contemporary societies, when one is wondering about the prospects and/or the (social and cultural) values and importance of scientific inquiry one will be faced also with such questions as "what exactly are scientists doing?", "what is their methodology and is it also effective in daily life?", and perhaps more significantly, "how are the human sciences connected to all of these issues?". An answer – admittedly partial and non-exhaustive – is to be found in Carnap's framework that is the subject of investigation in the present volume.

In response to the first question one is inclined to answer that, from a philosophical point of view, scientists provide more and more exact methods and notions than the previous ones. For example, though everyone had a certain idea about what the term "simultaneously" meant, both in science and in everyday practices, it fell to Einstein to provide a different and mathematically exact answer, thereby reorienting both science and our worldview.

Reorienting and reshaping one's worldview or world conception could also be identified as the purported answer to the second question. Though some parts of science are at best loosely connected to our daily practices, other parts influence us more directly. The results of technological innovations stand as eminent examples of the effectiveness of science. On the other hand, even the more theoretical parts of science can lead to changes in one's worldview. One such example is the notion of causation. If it turned out (or science provided enough reason to think) that backward causation were possible and/or actual —i.e., that effects could precede their causes – then this might entail that we would have to redefine our notion of moral responsibility.

The purported answer to what scientists do is labeled by Carnap as *explication*. As he puts it, "The task of explication consists in transforming a given more or less inexact concept into an exact one or, rather, in replacing the first by the second" (*The Logical Foundations of Probability*, Chicago University Press, 1950, §2). The given concept, which stands in need of explication or replacement, is called the *explicandum*, while the concept which replaces the former one is called the *explicatum*. As it stands, the usual strategy of many scientists is thought to be explication in the sense intended by Carnap. Wagner's recent edited collection is intended to deal with this notion and its various contexts for the human sciences –

concerning our third question – since scientists usually do not take their time to reflect on their methodologies and their requirements. Carnap, as a philosopher of science, actually did reflect on these questions, hence it is worthwhile to take a much closer look at his remarks since, after all, science and its methodology concern our daily life in a modern world, the way we look at things, how we behave in it etc.

The collection – *Carnap's Ideal of Explication and Naturalism* – is divided into three parts based mainly on thematic considerations: Part I is devoted to the historical context of Carnap's ideal of explication; the essays of Part II study special cases concerning the idea of explication and its critical evaluation; Part III is about the contemporary debate regarding the character and emergence of Carnap's approach in André Carus' book *Carnap in Twentieth-Century Thought: Explication as Enlightenment* (Cambridge University Press, 2007). I will discuss the essays as they are organized in the collection.

Alan Richardson (*Carnap's Place in Analytic Philosophy and Philosophy of Science*) argues that “Carnap was – and, from about 1935, conceived of himself as – a philosopher of science” (p. 9). Claiming that Carnap was a philosopher of science is not, at first, a remarkable statement, but it is important for Richardson to emphasize it when he talks about how the history of analytic philosophy and the history of philosophy of science emerged and met in the twentieth century. He also takes a stand in a contemporary debate (concerning the competing approaches of Thomas Ricketts and Alberto Coffa, respectively) and states that Carnap was not *just* a philosopher of science but a *conceptual engineer*. Interpreting Carnap as such, Richardson tries to disentangle the contexts surrounding scientific philosophy, the relation of technology to philosophy (of science) in Carnap's works, and his place in late-nineteenth and early-twentieth century thought (pp. 20-22).

There have been many proposals concerning the relationship between the approaches of Carnap and Heidegger: some scholars have claimed that Carnap's attack against Heidegger was a sign of the intolerant, dogmatic and inadequately technical approach that was presented in the Vienna Circle. Others have argued, on the other hand, on the contrary, that Carnap and Heidegger shared the same institutional and philosophical background in early twentieth-century Germany regarding Neo-Kantianism and thus their mutual disagreement is a sign of different *Lebensgefühl* [attitude towards life] and *Weltanschauung* [worldview]. Gottfried Gabriel's essay (*Carnap, Pseudo-Problems, and Ontological Questions*) belongs to this complex of issues and formulates a novel approach via “a third man” (p. 23), namely Oskar Becker. Gabriel demonstrates various similarities between Carnap's and Heidegger's problems and stances regarding the treatment of the problem of reality and draws on the phenomenological ideas of Becker's philosophy of mathematics (which was published in the same volume of the *Jahrbuch für Philosophie und phänomenologische Forschung* which published also Heidegger's *Sein und Zeit*). The upshot of the article is to reorient our attitude and framework with respect to the history of analytic and continental philosophy: “It is high time that analytic philosophy becomes aware of its continental roots” (p. 30).

Juliet Floyd's contribution (*Wittgenstein, Carnap and Turing: Contrasting Notions of Analysis*) is something of an outlier since her article is much more concerned with the ideas of Alan Turing than with Carnap's. She starts from the promising idea that “Turing's explication of the mathematician's intuitive notion of ‘effectively calculable’ using his notion of a machine [...] seems to fulfill Carnap's ideals of explication in an exemplary way” (p. 34) but argues for the thesis that “[...] Turing endorsed certain values and methods of approach neither emphasized nor commended by Carnap” (p. 35). While Floyd analyzes Turing's Wittgenstein-inspired criticism of Carnap's approach, she spends rather less time on Carnap's own formulations and his *dialectical* idea of explication.

The last two essays of Part I, Jacques Bouveresse's *Rudolf Carnap and the Legacy of Aufklärung* and Thomas Mormann's *Carnap's Boundless Ocean of Unlimited Possibilities: Between Enlightenment and Romanticism* may be read as contrasting two different angles on the young Carnap's cultural background. Bouveresse argues for the influence of Enlightenment ideas on Carnap's thought and shows how Carnap tried to "out-Russell Russell" (pp. 51-56). Whereas for Russell there was a gap between theoretical philosophy and practical questions, Carnap and those who subscribed to the Manifesto of the Vienna Circle argued that scientific philosophy "is not and cannot be ethically and politically neutral" (p. 51.). Bouveresse based his conception on the effect the German Youth Movement had on Carnap and shows that how Carnap hoped that scientific philosophy could rationally reshape modern life and society. His paper also concerns the connections and similarities of Carnap's and Musil's philosophy and *Weltanschauung*.

Mormann, on the other hand, is stressing the romantic elements in Carnap's philosophy, mainly in the first versions of the *Aufbau* and in his criticism of metaphysics in the 1930s. He claims that "Carnap, as a philosopher whose philosophical education took place in the late Wilhelminian Empire and early Weimar republic, was an heir not only of the Enlightenment tradition but also of late German romanticism, in particular *Lebensphilosophie* and Nietzsche's philosophy" (p. 77.).

One might find it surprising that, though Part I is devoted to the historical situation of Carnap's ideal, the conception of *explication* rarely surfaces in these essays. This is mainly because Carnap's intellectual development can be interpreted in a linear fashion, such that, though his idea of explication emerges only in the 1940s, the basic elements of his metaphilosophy and *Weltanschauung* that enabled this idea in the first place were already there much more earlier. From this perspective, these historical essays help to clarify Carnap's early development and the influences on his thought and life from which one can understand his envisaged stance towards philosophical and practical problems: namely the ideal of explication.

The second part of the collection is centered on examples of explication and their critical assessment. Wolfgang Kienzler (*Carnap's Conception of Philosophy*) first describes Carnap (somewhat along the lines of Richardson but with more examples and quotations) as a philosopher of science and argues for the *engineering-reading* of Carnap's philosophy. He points out that Carnap's scientific philosophy "always consisted in *analyzing science*, not in *doing science*" (p. 82) and hence, "for Carnap, philosophy should be scientific in spirit and attitude, not in method and letter" (p. 83). Thus, a considerably more tolerant picture of Carnap emerges from Kienzler's article, where "Carnap's main aim always was to instruct friends, not to attack his enemies" (p. 86).

The main line of Kienzler's interpretation is to compare Carnap's and Wittgenstein's views on the nature of philosophy (pp. 86-91). Whereas Wittgenstein was proposing philosophy *as practice*, around the time of *Logische Syntax der Sprache* (1934), Carnap started to think of philosophy as 'the logic of science' [Wissenschaftslogik] *as a tool*, with its own methods, rules, norms and truth-apt sentences. After all, Kienzler compares Carnap and Wittgenstein on the notorious distinction between *formal* and *material* modes of speech, and, with a bit of a preference for Wittgenstein, he concludes that "[i]n the end we find Carnap consistently giving a quite Wittgensteinian account of the nature of philosophy – while he himself preferred to do the more technical part of the job" (p. 92).

Erich Reck's (*Carnapian Explication: A Case Study and Critique*) and Thomas Uebel's (*The Bipartite Conception of Metatheory and the Dialectical Conception of Explication*) articles are, in fact, the very first in the volume that deal explicitly, and in a detailed manner, with the ideal of explication. Reck takes Carl G. Hempel's Covering-Law (CL) Model of

scientific explanation as a preeminent example of Carnapian explication and shows CL's weaknesses and critiques. Using CL, Reck points out at least three (partially connected) major problems with the general methodology of explication. First, he confronts Carnap's highly formal and abstract method with the approaches from ordinary language philosophy (Scriven-Strawson) based on pragmatic considerations. Though he admits that one "might envisage a synthesis of the two approaches, one that combines the best of both worlds" (p. 107), further *philosophical* reasoning is required in order to show the means and bounds of this synthesis. His other problem is a related one: if Carnap's method is to replace traditional and fruitless philosophical argumentations, then there is no escape, since "a comparison would involve 'inexact' matters, or it would lead us back to 'philosophical arguments'; and their consideration is not exactly encouraged" (p. 110). Reck also calls attention to the question 'What is the purpose of explication at all?' If it is to provide useful concepts for everyday endeavours which enable "the progress and the improvement of our everyday lives" (108), then the usual examples of Carnap and Hempel (analyticity, confirmation, inductive logic, scientific explanation) do not, at first, seem to be relevant at.

Uebel's "explorative" (p. 129) study is meant to compare the bipartite metatheory of the Vienna Circle's left wing (Carnap, Hahn, Neurath) and Carnap's dialectical conception of explication. The bipartite metatheory is "a conception of philosophy of science as comprising both formal-logical and empirical investigations" (p. 117) based on Carnap's logical writings, Neurath sociological and historical investigations, and Philipp Frank's pragmatic conception of sociology of knowledge and science. Uebel argues (pp. 124-127) that these two conceptions not just complement each other but that "the complementation is mandatory" (p. 129) in order to arrive at plausible proposals about a non-metaphysical theory of normative discourse which is required for their envisaged Enlightenment-project of the scientific world conception [*wissenschaftliche Weltauffassung*].

The final two papers of Part II, Stewe Awodey's *Explicating 'Analytic'* and Philippe de Rouilhan's *Carnap and the Semantical Explication of Analyticity*, consider Carnap's long-term project, namely the explication of the notion of analyticity. Both articles are focused case-studies, though they are much more about *analyticity* than about *explication*. Reading these papers does not tell us directly about Carnap's general methodology or about its context or goals, but it does shed light on how Carnap's project eventually fails. Important as these papers are, Awodey's paper moves rather too swiftly while de Rouilhan's investigations are too technical for a volume intended for non-specialists.

The final part of the collection is devoted to the contemporary debate about Carus's interpretation of Carnap's ideal of the dialectical conception of explication. Richard Creath, as the title of his chapter suggests (*'Before Explication'*), sketches some main trends in the methodology of Carnap and logical empiricism from the early 1930s, just before Carnap introduced his *principle of tolerance*. The main strength of Creath's paper is that he develops a highly plausible narrative about the changes in Carnap's intellectual development, i.e. how he moved from his earlier writings to the idea of tolerance and explication. He suggests, as part of a wider explanation, that "Carnap saw himself as having a special role within the group or movement, namely that of a mediator" (p. 171) and as such he required a perspective from which he could articulate the different viewpoints of the Circle and could mediate within the group.

Pierre Wagner's own contribution (*Natural Languages, Formal Languages, and Explication*) may be read as a special study in recent Carnap-scholarship since he is trying to steer a middle path between Rickett's naturalistic-behaviouristic and Carus's engineering-constructivist Carnap. Wagner's paper is important since while it is known that Carnap preferred formal

languages over natural languages, his ideas concerning the connection between these two types of language is not usually made clear. Wagner tries to spell out the different interpretations of Carnap's main texts and opens up a new field for Carnap studies, which includes questions of relevance to a wider audience: e.g., what is the relation between formal and informal, empirical and logical investigations and how could the idea of explication help us in answering these questions?

Michael Friedman's rather short paper (*Rational Reconstruction, Explication, and the Rejection of Metaphysics*) belongs more to the first part of the collection since Friedman deals more with the details of Carnap's earlier method of rational reconstruction than with his later views on explication. As previously argued by Carus in his book, while *rational reconstruction* aims for the final and correct language for science and scientific philosophy, *explication* provides a much more constructive, tolerant and dialectical picture of language-formation and choice. Friedman agrees with Carus but concentrates on "the relation between Carnap's attitude towards traditional metaphysics [in the *Aufbau*] and his later attitude developed after *Logical Syntax*" (p. 190) providing further considerations and information about this transition. In doing so, he takes up the question of the relation between traditional epistemology and the logic of science, between observational and theoretical terms, and Carnap's stance toward instrumentalism.

Mark Wilson (*The Perils of Pollyanna*) takes issue with Carus's interpretation of Carnap's notion of explication and though he sympathizes with Carus's reading of the "Enlightenment ideal", he criticizes various aspects of it. Wilson shows that Carnap's method is too formal and abstract and that his "approach to 'explication' can't deal with conceptual readjustments at a smaller scale very effectively" (p. 207.). In fact, he states that Carnap is insensitive to the real-life-practical problems of scientific practice, and that he "generally spurns such larger themes with typical 'logic chopper' impatience, heading for the Gothic letters more swiftly than he should" (p. 208). Though Carnap permits us to use any method and language form we wish, and requires only that we state them clearly, he is quite unhelpful in the practical realm of working science. Wilson suggests as viable alternatives the enlightenment ideals of Mach and Cauchy, thereby broadening our perspective on how to salvage or modify Carnap's account.

The final contribution to the volume is André Carus's *Engineers and Drifters: The Ideal of Explication and its Critics*, in which he takes issue with Mark Wilson's earlier critique. The larger context of their discussion is provided by an earlier debate between Ernst Mach and Max Planck: "Is our knowledge imposed on us by nature [Mach], or is it imposed on nature by us [Planck]?" (p. 226) Carus points out that after all the whole debate at its root comes down to different sides of the Enlightenment project, each of which emphasizes different conceptual and methodological preferences. The whole issue, thus, can be discussed from within a Carnapian framework since Carnap went through just the same phases, moving from the unitary ideal of rational reconstruction to the pluralist conception of explication (see Friedman's article). From this point of view the debate between Carus and Wilson points to the continuously revisable character of methods and goals in philosophy and science, two of which simply are explication and the scientific world conception.

Though most of the articles do not discuss in any great detail the notion and ideal of explication (and in some cases –e.g. Wagner's, Wilson's and Carus' contributions – instead push a naturalistic agenda) they bring important issues and inner conflicts to the surface, thereby helping to re-conceptualize the issues at hand. All in all, this recent collection on Carnap's philosophy, with all its details, historical and philosophical contexts, is a primary source for Carnap scholars: some of the articles (Uebel, Wagner, and Friedman), though sketchy, provide insightful ideas and may be seen as sketching possible

trajectories of future Carnap studies, while others (Reck, Wilson, Carus) introduce additional important and illuminating materials.

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