

Introduction
Carnap's Transformation of the Canon
Alan Richardson and Adam Tamas Tuboly

Rudolf Carnap (1891–1970) is praised as one of the leading figures of analytic philosophy. Although the received narratives about his role and place in the historical canon and contemporary philosophy have undergone many changes, Carnap continues to be a frequently cited source in new research programs, which frequently frame him as the archenemy par excellence of the nonanalytic traditions. While his influence on the practice of Anglophone philosophy in the mid-twentieth century is unquestionable, its exact nature and extent are still under discussion by historians and philosophers.

As is often noted, after his death in 1970, Carnap's philosophy was largely seen as flawed, outdated, and too simplistic for philosophers. But one person's flaws are another's strengths, and "outdated" is thus never a final judgment – every generation considers the previous one to be obsolete, and today's scholars are rejecting those who judged Carnap to be outdated in the first place. Furthermore, oversimplification on the surface, especially in secondhand reconstructions, often turns out to be a simplification on the part of the interpreters. Historically informed research has revealed that Carnap was intellectually integrated into a colorful scholarly landscape during the first few decades of the twentieth century and that he indeed mastered his field and made good use of it in his early texts. His alleged shallowness was thus rather a new form of philosophical practice on purpose.

How and when exactly the philosophical community started to reinterpret and advance our understanding of Carnap is discussed in several chapters of this volume. Many of them also examine the factors and sources that fostered Carnap's rehabilitation: these relate to the troves of archive materials that have been unearthed in the last few decades – and due to digitalization and the existence of edited publications, it is now easier to search for the required items among the vast volumes of data at hand. Furthermore, it is also important to note that even though many of

these things have been around for decades, *our interests* and *perspectives* have changed, and we thus highlight radically different things about Carnap today. We always knew that Carnap took certain sociopolitical moves outside academia as a citizen, but scholars considered this to be no more than interesting but philosophically unimportant biographical information. As Audrey Yap shows in Chapter 4, however, there are important parallels between Carnap's social engagement and his collectivist philosophical agenda.

Assessing an author's place in the history of philosophy, from a philosophical point of view, goes hand in hand with listing and contextualizing his or her additions to the philosophical canon. Such a list could feature sharp and characteristic *theses*, a well-defined and table-turning *argumentation*, or a specific *role* that the philosopher in question played in reviving a certain topic or concept. Carnap, in fact, did all of that. He is known for his confirmed, enduring, and extreme anti-metaphysical ideas that differentiated him even from other traditional empiricists; he put the modalities back on the table and showed how one could argue for a well-defined differentiation of extensions and intensions within philosophy and linguistics; finally, he was one of those figures who revived the notions of probability and induction in the mid-twentieth century.

As the literature on Carnap is vast and deep, including many more accessible pieces for a general audience, one might think that discerning Carnap's legacy and place in history is now a straightforward business. Nonetheless, because of the painstaking efforts of many scholars, even the latest, refined, and revised discussions are mixed up and somewhat blurry. By scratching the surface again and again, we find ourselves in a somewhat inconvenient, complex, and puzzling situation about who Carnap was, and what he claimed and achieved, after all. In demystifying old and new narratives, there is always hope – a hope that all our challenges, archival diggings, and conscious changes of the received norms of interpretation will contribute to an even more refined, or an entirely novel, picture and understanding of Carnap's actual place and role in the history of philosophy.

An example of such puzzlement that later produced new knowledge and interpretations is Carnap's early work, which resulted in the much celebrated and criticized *Der logische Aufbau der Welt*: it can thus be shown that Carnap's *sociological* and *institutional* embeddedness, or lack thereof, fueled his novel philosophical project. Carnap enrolled at the University of Jena in 1910 and studied mathematics, physics, and philosophy, the customary triplet before the outbreak of the First World War in 1914.

Meanwhile, in 1911 and 1912, he also spent several semesters in Freiburg, where he studied philosophy under such important neo-Kantian philosophers as Jonas Cohn, Georg Mehlis, and, above all, Heinrich Rickert. In Jena, however, the most influential impact on his thinking came from the logician Gottlob Frege, the neo-Kantian Bruno Bauch, and from Herman Nohl, who lectured on Lebensphilosophie, education, psychology, and even Hegel's philosophy of law (*IA*, 4).

Although Carnap returned to his studies after his service in the German Army during World War One, he rather “followed [his] interest without thinking about . . . a professional career” (*IA*, 3), thus deciding to become a secondary school teacher of physics and mathematics. But after passing the teaching exams in 1920, he began to consider an academic career in pure science and prepared for the submission of a doctoral dissertation on the borderline of physics and philosophy. It wasn't an easy task, however. Carnap went first to the physics department with a project concerning space and time. As the head of the institute, Max Wien, rejected it as being too philosophical, Carnap took it to the philosophy department, where Bruno Bauch considered it too physical. “In the end we came to an agreement”, recalled Carnap (*IA*, 11), “that I would choose another project in philosophy, namely the philosophical foundations of geometry.” This was a transformative experience for him that shaped his entire career: Carnap often worked in gray zones, and only at a very late point in his career did he witness the rise of all those institutional frameworks and programs that we now call analytic philosophy of science or “logic and methodology of science.”

During those years of envisioning, writing, submitting, and defending his dissertation, Carnap was living close to Freiburg and made great use of this proximity. He not only attended Edmund Husserl's seminars and discussion group on several occasions (Carus 2016) but organized his own groups and small workshops with his closest friends and similarly minded distant colleagues (Dahms 2016). In the years that followed, he became friends with scientific philosophers like Hans Reichenbach and psychologists like Kurt Lewin and Wolfgang Köhler and discussed methodology with Paul Hertz, aesthetics and politics with Hans Freyer, and the arts with Franz Roh and László Moholy-Nagy.

For years, Carnap was on the intellectual move without letting any cognitive strictures restrict his journey. In fact, he did not have a proper institutional position until 1926 and was financially independent: he came from and had married into a wealthy family. At the time, scientific philosophy was a hobby for him, a joyful interest that he pursued out of

intellectual curiosity and for that reason alone. Around 1923, however, given some friction in the family and the deteriorating economic situation in Germany, Carnap reconsidered his career plans and started to look for an established academic position, which, after some years, he found in Vienna.

During the early 1920s, Carnap published a few articles with strong conventionalist and neo-Kantian leanings, but they did not have a significant impact on the community of scientific philosophers (all of them have been recently translated, edited, commented, and published in Carnap 2019). More important were Carnap's dissertation and his first major book, *Der logische Aufbau der Welt*. Though the specific Viennese atmosphere left a mark on the final, published version of the book, it can still be seen as the result of Carnap's free-floating thinking during the early 1920s. And in fact, this is what makes it significant for many scholars today (see the essays in Damböck 2016).

It is a rather demanding and pointless task to attempt to summarize, within a few sentences, the aims and goals of the *Aufbau* – it was a complex, grand endeavor, purporting to answer and settle many, if not all, philosophical questions. There is an interpretational problem due to the variety of sources that Carnap used without further ado. The sense-data–certainty–Russellian–reformed-empiricism reading of the book (propagated for many years by W. V. O. Quine and to some extent by Carnap himself) has been challenged historically and conceptually for decades. Today, it is appreciated that certainty was not Carnap's goal and that sense-data considerations only come into play at a rather late point in the book. And while empiricism is certainly there, it is not at all the only player in town. Alternative interpretations have been offered in abundance: neo-Kantianism's strive for objectivity and scientific pursuits, a refinement of empiricism on German grounds, or a reexamination of scientific philosophy through the lens of the Enlightenment. Specific, restricted, but still influential sources have been identified in the persons of Wilhelm Ostwald, Henri Poincaré, and Hugo Dingler, the tradition of *Geisteswissenschaften*, and value theories.

This is a substantial list that could quite possibly be continued further, as certain archived sources are being even more broadly circulated concerning Carnap's readings, diaries, and correspondence (Damböck 2022a, 2022b). Furthermore, his early work is a clear synthesis of all of Carnap's readings, influences, and discussions between 1910 and 1927. The same goes for disciplinary issues beyond personal influences, which ranged from *Lebensphilosophie*, philosophy of science, logic, and mathematics, to

physics, value theory, color theory, psychology, and the social sciences. But seen through the lens of our present, systematically and institutionally shaped self-understanding as analytic philosophers, this list is inconsistent, puzzling, and dangerous. The *Aufbau* is often read or noted as a foundational text of our canon; something that has shaped our problems, methods, views, and the sources we deem respectable for further consideration in analytic puzzle-solving. If the *Aufbau* comes close to anything like that (which one might doubt, given the very late English translation dating to 1967 and the fact that the *Aufbau* had little resonance among Anglophone scholars besides Quine and Nelson Goodman during the mid-twentieth century), then institutionally, it might indeed seem dangerous for a foundational text to combine substantial engagement with outsider figures and themes such as Husserlian phenomenology, neo-Kantian value theory and concept formation, Nietzsche's *Lebensphilosophie*, Dilthey's *Geisteswissenschaften*, and Hans Freyer, with discussion of such leading fathers of the movement as Mach, Comte, Russell, Frege, and even a little bit of Wittgenstein.

We do not have to resolve this issue, of course, as others have already pointed toward the possibility of stratified readings (most importantly, Carus 2007 and Damböck 2016) and certain tensions within the book. What is to be noted here, however, is that Carnap's significance, especially with regard to the *Aufbau* (though one might also include his doctoral dissertation, *Der Raum*), lies in the fact that he was able to speak to many *nonoverlapping philosophical circles*. Almost everyone could find something significant and relevant in it, and the book offered explicit meeting points for all these traditions and movements. As a result, many European scholars could read and connect to Carnap's project, and Quine was able to forge a narrative that would get the attention of their American colleagues. Even if it is true that the content of the *Aufbau* is not at all exhausted by Russellian philosophy and a concern for sense data and phenomenalism, these aspects are partially there in the book and provide an expedient base for constructing a restricted narrative – just as Quine did.

Due to this richness of materials, sources, concepts, viewpoints, and often implicit minuscule steps toward alternative traditions and discourses with the past, Carnap's early work earned a remarkable place in the history of twentieth-century philosophy. While many have previously read it as a single-minded, hard-boiled, and – consequently – failed logical attempt at achieving the unachievable, we are now in a better position to engage with and interpret the relevant early texts from radically different and more

sophisticated perspectives. One might even say that while Frege's works created the problem horizon for analytic philosophers in the philosophy of mathematics, and Russell's for a general epistemological program, Carnap's texts show us how to deal with philosophy in a more traditional manner, by reaching out to all cognitive enterprises that might contain the germs of solutions for the chosen problems within a grand scheme. Carnap wrote the book when the analytic-continental rupture was either less visible or less significant for philosophers, which surely contributed to his freedom to take the "other camp" more seriously. But for years, Carnap was not committed to any institutions, philosophical movements, schools, or for that matter, any personalities (like Wittgenstein). He was a freelancer, a seeker of solutions and cognitive challenges, and due to his widespread readings, countless personal contacts, and first-order experiences in various reading groups, the mixture he created in the 1920s was unique.

One final point of importance: through Carnap's diverging interests and readings, our attention has also been redirected to lesser known, already forgotten, never really recognized, or even rejected figures, such as Hans Freyer, Theodor Ziehen, or Richard Gätschenberger, that have not caught the attention of historians and philosophers in their own right. One might even say that, unintentionally, Carnap did important service to the history of philosophy by keeping up the interest of analytic philosophers in, and making available useful backdoors and transitory points to, continental philosophy (to Husserl, Dilthey, Rickert, Driesch, and Vaihinger), for example.

Working in Vienna and later in Prague, subsuming himself to the more traditional strictures of academic life and institutional barriers, significantly changed Carnap's thinking and perspective, which neither needs to be emphasized nor examined here. What should be noted, however, is his idea that the critical-interpretational business is an open-ended challenge that involves overthrowing the hard-gained simplicity of previous interpretations – and that by engaging with the empirically founded complexities of history, we are always reminded of how we arrived at our current predilections by means of past determinations and how our picture of the past is drawn by current expectations and dominant strains of thought.

Some further information about the motivation and reasoning behind this volume's place and standing in a field where scholarship is continuously growing may be required. *The Cambridge Companion to Carnap* was published in 2007 (Friedman and Creath 2007). While it has facilitated a more nuanced and contextually grounded picture of Carnap's life, this has

not yet been put to broader use. On the other hand, *all* the available monographs on Carnap focus on *particular* aspects of his thinking and influence. Michael Friedman's (1999) groundbreaking collection, *Reconsidering Logical Positivism*, brought new dimensions to the study of Carnap's early philosophy of science and logic, mainly within the context of logical positivism. Meanwhile, Alan Richardson's *Carnap's Construction of the World* (1998) offered a critical reevaluation of Carnap's *Aufbau* against the broader historical background, including its relevance to the changes of the early 1930s. Finally, A. W. Carus' *Carnap and Twentieth-Century Thought* (2007) is perhaps the most comprehensive treatment of Carnap's philosophy, while also featuring a substantial overview of his life. Nonetheless, Carus' book is a detailed exploration of one major idea (namely, the method and process of explication) in the life and work of Carnap.

Consequently, *Interpreting Carnap* aims to deliver a more comprehensive account of Carnap from various *new* and hitherto *unexplored* or *underrated* perspectives. The volume looks anew at a range of interesting and important things that Carnap did from a variety of historical and philosophical perspectives. It is an invitation to be curious – and by highlighting the contemporary relevance of Carnap's philosophical thinking, the chapters it contains will also help to reassess his long-standing influence. The interpretative filters of novel historical, argumentative, and more systematic standpoints not only make it possible to discuss Carnap's better-known works from lesser-known viewpoints but also to apply the received and existing perspectives to his minor and lesser-known writings, with the aim of reevaluating their place in his overall philosophical oeuvre.

The essays in Part I set the tone of the volume by taking a general look at Carnap scholarship, while Part II deals with Carnap's views on naturalism, explication, and the analytic–synthetic distinction. The third part focuses on philosophy of logic and language. Finally, Part IV is concerned with traditional topics of and within the philosophy of science from new perspectives, delineating the contours of possible roads ahead in Carnap scholarship.

In particular, Christian Damböck (Chapter 1) highlights the importance of archival and less well-known primary sources for our understanding of Carnap's philosophy by investigating several examples of concrete, and often overlooked, influences on his thinking that include a broad range of heterogeneous movements. Damböck draws important and challenging lessons about Carnap's place in the history of philosophy, mainly through the guiding idea of noncognitivism.

In Chapter 2, Vera Flocke starts from the received view that Carnap is a great opponent of metaphysics. But closer scrutiny reveals the simplicity of this perspective, and by asking what exactly Carnap rejects when he repudiates metaphysics, Flocke provides a novel critical interpretation of Carnap's business by distinguishing phases of Carnap and showing that Carnap rejects a particular methodology that he regards as conflicting with empiricism; and thus, Flocke argues, much of contemporary metaphysics is, from Carnap's late perspective, in good standing.

Christopher Pincock's contribution (Chapter 3), despite its title, focuses on Carnap's work in a more general setting. As most philosophical texts generate interpretive controversy, he argues that some of those controversies arise from a reasonable pluralism of interpretations. Pincock illustrates this reasonable pluralism through recourse to six of the most important interpretations of Carnap's *Logical Structure of the World* or *Aufbau*.

The first part of the volume is closed by Audrey Yap's essay (Chapter 4), which discusses Carnap's engagement with various social issues through the lens of his scientific world view, connecting it to the idea that Carnap intended his philosophy to be political in the broadest sense of the term. From this new perspective, Yap also considers the extent to which certain social activities, by reflecting Carnap's concern for the intellectual community as a whole, can be seen as continuous with his commitment to philosophy as a collective enterprise and how these ideas might improve the practice of philosophy generally.

Part II begins with André W. Carus's comparison of Carnap's and Quine's naturalism (Chapter 5). Carus starts from Dreben's slogan of 'working from within' to characterize what Quine calls his 'provincial' — in contrast to Carnap's 'cosmopolitan' — naturalism. Quine's vacillations (e.g. about analyticity) make this tricky, but Carus argues that the abyss between Carnap and Quine can in principle be bridged.

Joseph Bentley and Thomas Uebel (Chapter 6) approaches W. V. O. Quine's criticism of the distinction between analytic and synthetic sentences. They argue that Quine's epistemological objection against the distinction is misdirected. According to Carnap's semiotic approach to philosophy, analyticity is a strictly semantic concept differentiating meaning relations of sentences within constructed formal language systems. Epistemological questions fall outside semantics and belong to pragmatics where they are to be answered by empirical means. Insofar as epistemological objections are applicable to the pragmatic counterparts of semantic concepts, they are shown to be very much answerable by naturalistic standards.

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In Chapter 7, Erich H. Reck discusses Carnap's now famous process of explication. To gain a more critical *and* interpretative perspective, he raises several historical questions. Answering all the possible challenges one by one, Reck examines the origins of, subsequent tendencies and shifts in, as well as the resulting gains and losses associated with explication. Finally, he examines the conception of philosophy that would make explication one's main, or even only, philosophical method.

In Part III, Pierre Wagner (Chapter 8) considers Carnap's views on syntax and semantics and renews the importance of Carnap's semantical turn that is sometimes underestimated. Wagner's chapter discusses Tarski's influence on Carnap and the impact of semantics on several topics such as formal languages, logical truth, and the principle of tolerance.

Georg Schiemer (Chapter 9) approaches a specific feature of logic and mathematics. A general line of continuity in Carnap's philosophical work is the conviction that mathematics and logic are formal or nonfactual in nature. Given the centrality of this idea, a natural question is how precisely Carnap understood the formality thesis concerning mathematical knowledge. According to Schiemer, there were several significant shifts in Carnap's understanding, corresponding to changes in his conceptual framework.

Sandy Zabell (Chapter 10) looks at the field of probability, where, although he arrived somewhat late, Carnap's groundbreaking work immediately established him as a central figure. This surprising midlife shift in Carnap's career raises some natural questions and Zabell aims to tackle these in novel ways. One of the chapter's central themes is that although reference is often made today to Carnap's views on probability and inductive inference, these views underwent a significant evolution over time: to genuinely understand Carnap on probability and inductive inference one has to recognize that there is actually a Carnap₁ and a Carnap₂.

Finally, Başak Aray (Chapter 11) discusses how Carnap's philosophy of language affects his position on language planning issues. Carnap was an Esperantist from an early age, and he kept his interest for international auxiliary languages active throughout his life. Aray argues that the anti-metaphysical rejection of the romanticist view of language, sustained by Vienna Circle, led to a more liberal and flexible attitude toward language planning issues.

By taking a new stand in old debates, in Part IV, Lydia Patton (Chapter 12) goes back to Carnap's ideas about empirical significance and theory construction. Carnap's account of the relationship between theoretical frameworks and methods of observation has come in for

plentiful criticism in the twentieth century. Patton presents evidence that Carnap's approach to the distinction between theoretical and observation languages is more flexible than it is usually depicted to be and is motivated by his philosophy of science.

Bianca Crewe and Alan Richardson (Chapter 13) attempt to rise above the details of various formulations of the unity-of-science doctrine in Carnap's work to investigate instead the philosophical significance of his commitment to the unity of science. They approach this problem by reflecting on the "dangerous disunities" in knowledge, action, and society that Carnap hopes to overcome through the unity of science.

In Chapter 14, Richard Creath turns his attention to an overlooked problem, that is, free will and its relation to determinism, which has exercised the minds of metaphysicians and ethicists for thousands of years. By his own account, Carnap engaged in neither metaphysics nor ethics, nonetheless, in his major text on the philosophy of science, he devotes an entire chapter to this problem. By illustrating the historical situation and the problem nexus in which Carnap worked, Creath argues that Carnap's chapter should be seen as a reaction against and rejection of Hans Reichenbach's conclusions about the same issues, including free will, laws of nature, and causation. Creath examines and assesses Carnap's arguments and asks whether they amount to a deviation from his anti-metaphysical stance.

Individually, but especially when taken together, these chapters provide much food for thought for historians and systematic thinkers alike. As the contours of new possible research agendas and expectations relating to historical figures are continuously emerging, we hope to make a useful and illuminating contribution to both current and future research.