

# Coming to America: Carnap, Reichenbach and the Great Intellectual Migration

## Part I: Rudolf Carnap

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Von den Vereinigten Staaten ... habe ich ... den Eindruck gewonnen, dass es in geistiger Beziehung eine fruchtbarere Zukunft verspricht, als man bei uns meist glaubt, und daher auch kein undankbarer Boden sein würde. Das Volk ... ist freilich oft unreif aber auch unbelastet, und scheint nach würdigen Aufgaben auszuschaun, die seine unverbrauchte Kraft anlocken.

—Rudolf Carnap to Heinrich Scholz, August 13, 1923

### I.1. Introduction

In the late 1930s, a few years before the start of the Second World War, a small number of European philosophers of science emigrated to the United States, escaping the increasingly perilous situation on the continent. Among the first expatriates were Rudolf Carnap and Hans Reichenbach, the joint editors of *Erkenntnis* and arguably the most influential scientific philosophers of their time. Reichenbach came to the United States via Istanbul, where he had spent a few years after the Nazi government had dismissed him from his job in Berlin. Carnap abandoned his post at the German University in Prague, where he had grown increasingly concerned about the rapid spread of fascist ideology among his students and colleagues (Carnap 1963, 34). Once in the United States, Carnap and

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Reichenbach assumed positions at the University of Chicago and UCLA, where they continued developing scientific philosophy in a new institutional setting.

The emigration of Carnap and Reichenbach had a tremendous impact on the course of postwar academic philosophy. In Europe, the philosophers had been active members of two relatively minor groups of scientific philosophers—the Vienna Circle and the Berlin School. In the United States, however, Carnap and Reichenbach became the intellectual leaders of a movement that significantly changed the American philosophical landscape. Whereas pragmatism, idealism, and naturalism had been the most influential schools in the United States, American philosophers quickly began to develop views about meaning, method, and metaphysics that were heavily indebted to the movement that originated in Europe. After the Second World War, American departments of philosophy started to be increasingly dominated by ‘analytic philosophy’. And even though the direct influence of logical empiricism started to wane in the 1960s and 1970s, much of academic philosophy as we know it today is still shaped by the discussions and practices first instigated by Carnap, Reichenbach, and their followers.

Despite its impact on the development of twentieth-century philosophy, many questions surround Carnap’s and Reichenbach’s migration. When did the logical empiricists and the American philosophers first learn about each other’s work? What explains the popularity of logical empiricism in the United States? And, more practically, how is it possible that philosophers of a relatively small and only moderately influential movement in Central Europe were able to secure prominent academic positions in a country that was plagued by the effects of the Great Depression? If we are to explain the development of analytic philosophy in the mid-twentieth century, we require a better understanding of the relation between the logical empiricists and the American philosophical community.

In this two-part paper, I take the first steps toward answering these questions by reconstructing Carnap’s and Reichenbach’s surprisingly numerous interactions with American scholars throughout the 1920s and 1930s. Building on archival material of several key players and institutions in the development of logical empiricism,<sup>1</sup> I aim to provide a better understanding of the years immediately *preceding* Carnap’s and Reichenbach’s emigration. Whereas existing work on the American reception of logical empiricism predominantly focuses on the way in which U.S. philosophy changed in the years after their arrival, this paper aims to show that we can better understand the development of mid-twentieth century analytic philosophy if we look at Carnap’s and Reichenbach’s exchanges with American scholars in the years before they left Europe.<sup>2</sup> I map the surprisingly numerous Euro-American interactions in the late 1920s and early 1930s and argue that we can better explain the success of logical empiricism if we take into account Carnap’s and

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<sup>1</sup> In addition to material from the Rudolf Carnap Papers (hereafter, RCP) and the Hans Reichenbach Papers (hereafter, HRP) at Pittsburgh’s Archives of Scientific Philosophy, the present paper is based on material from Charles Morris’ Records of the Unity of Science Movement (USM), the Herbert Feigl Papers at the University of Minnesota Archives (HFP), the Harvard University Archives (HUA), the L. J. Henderson Papers at Baker Library (LJHP), the W. V. Quine Papers at Houghton Library (WVQP), the Rockefeller Archive Center in Sleepy Hollow, New York (RAC), the papers of Moritz Schlick (MSP) at the *Wiener Kreis Archiv* in Haarlem, and the University of Chicago Archives (UCA). Transcriptions and translations are mine unless indicated otherwise.

<sup>2</sup> See Giere (1996), Galison (1998), and Katzav and Vaesen (2017) for discussions of the development of American philosophy after the arrival of the academic refugees. Notable exception are Limbeck-Lilienau (2010) and Tuboly (forthcoming), who discuss some of Carnap’s and Neurath’s interactions with American philosophers before the great intellectual migration. In a previous paper (Verhaegh 2020), I have discussed the impact of Feigl’s and Schlick’s visits to Harvard, Stanford, and Berkeley between 1929 and 1932.

Reichenbach's exchanges with their American colleagues (most notably, Edward Allen, Sidney Hook, C. I. Lewis, Charles Morris, Ernest Nagel, W. V. Quine, and Paul Weiss) in the years before they arrived in the United States. Without the zealous efforts of these American logicians and philosophers of science, I argue, it is likely that Carnap and Reichenbach would not even have been able to even find a job in a country that was swamped by thousands of academic refugees while being hit by the worst economic crisis in its history.<sup>3</sup>

Although this paper mostly aims to answer a set of historical and sociological questions about the development of mid-twentieth century analytic philosophy, the discussion will also shed some new light on Carnap's and Reichenbach's own philosophical development. Most importantly, I will argue that some of Carnap's and Reichenbach's work from the mid-1930s—in particular 'Testability and Meaning' (Carnap 1936/1937) and *Experience and Prediction* (Reichenbach 1938)—can be better understood if we take into account the context in which it was written. Both Carnap and Reichenbach were, at various points in the mid-1930s, desperate to find a position in the United States and I argue that we should view these books and papers as attempts to change the American narrative about European philosophy of science. Carnap, I argue, wanted to show that his views on meaning were more liberal than pragmatist commentators had made them out to be, whereas Reichenbach aimed to respond to the American tendency to neglect the role that his Berlin Group had played in the development of scientific philosophy.

This paper is divided into two parts. The first part reconstructs Carnap's contacts with American philosophers throughout the 1920s and 1930s. After a brief reconstruction of his first trip to the United States in the mid-1920s (§I.2), I provide an overview of the (mixed) American reception of Carnap's earliest work (§I.3), focusing especially on C. I. Lewis' presidential address at a 1933 APA Meeting (§I.4). Next, I describe Carnap's first substantive contacts with American philosophers (§I.5) as well as the events leading up to his decision to emigrate, arguing that he became increasingly desperate to find a position in the United States after the political developments in the spring of 1933. Finally, I reconstruct Carnap's first failed attempts to find a position in the United States (§I.6), his efforts to resolve the American misunderstandings about his philosophy (§I.7 and §I.9), and the Harvard campaign leading up to the crucial invitation to come to the United States (§I.8). A general conclusion and the bibliography follow after my reconstruction of Reichenbach's interactions with American philosophers of science in the second part of this paper.

## **I.2. A scientific philosopher in New York**

Carnap first visited the United States in the mid-1920s, when he spent almost half a year in Mexico with his parents-in-law, who had emigrated from Germany many years before. On April 26, 1923, Carnap, his first wife Elisabeth, and their seven-month-old baby Johannes, arrived at the New York City harbor after a ten-day voyage on the *SS Reliance*, one of the flagship steamliners of the Hamburg America Line. In New York, the three were awaited by Carnap's parents-in-law, who were eager to meet their new grandchild. On their way to Mexico, the reunited family spent a few weeks in the

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<sup>3</sup> In reconstructing the interactions between Carnap, Reichenbach, and their American colleagues, I will especially concentrate on their philosophical exchanges. For an analysis of the strong ideological ties between the pragmatists and the logical empiricists, see Howard (2003) and Reisch (2005). For a discussion of the connections between American philosophy and the members of the 'first' Vienna Circle' (Philipp Frank, Hans Hahn, and Otto Neurath), see Uebel (2015) as well as the discussion between Klein (2016), Misak (2016), and Uebel (2016).

United States, where Carnap admired the skyscrapers, the “great traffic”, and the “soundless typewriters”, a recent invention that had not yet been introduced in Europe (Carnap’s diary, April 27, 1923, RCP, 025-72-02).

Carnap’s first intercontinental trip came at a crucial point in his academic development. He had recently published a revised version of his dissertation in *Kant-Studien* and he had decided to pursue an academic career. A few days before he left Europe, he had met with Heinrich Scholz—a philosopher who had taken an interest in the *Principia Mathematica*—and they had discussed the possibility of writing a *Habilitation* at the University of Kiel.<sup>4</sup> Most importantly, Carnap had recently formulated a new research program, which aimed to use the new logic to create a “unified system of reality” by reconstructing our knowledge of the external world from the “original chaos” of experience. In a manuscript titled *Vom Chaos zur Wirklichkeit* (July 1922, RCP, 081-05-01), an early version of his seminal *Der Logischer Aufbau der Welt*, Carnap aimed to reconstruct our knowledge of the external world from the ‘experience realm’—an approach he would later call ‘methodological solipsism’ (Carnap 1928a, §64)—in order to create a unified system of reality. When Carnap first set foot on U.S. soil in April 1923, in other words, the unification of knowledge was already his central aim.<sup>5</sup>

A final development of major importance is that Carnap had recently come into contact with like-minded spirits at a conference in Erlangen (March 6-13, 1923), where people like Karl Gerhards, Kurt Lewin, and most importantly, Hans Reichenbach had come together to discuss each other’s work. Although Carnap, in the days before the conference, had still hesitated about pursuing an academic career because he worried that “the study of science” [*Wissenschaftslehre*] and “the study of orders or structures” [*Ordnungslehre*] would not be gaining any “recognition as independent disciplines in the foreseeable future” (Carnap to Scholz, March 2, 1923, RCP, 102-72-08), his mood completely changed when he discovered that many of the participants at Erlangen shared his philosophical outlook. In his “Intellectual Autobiography”, Carnap remembers:

Our points of view were often quite divergent, and the debates were very vivid and sometimes heated. Nevertheless, there was a common basic attitude and the common aim of developing a sound and exact method in philosophy. We were gratified to realize that there was a considerable number of men in Germany who worked toward this same aim. The Erlangen Conference may be regarded as the small but significant initial step in the movement of a scientific philosophy in Germany.<sup>6</sup> (1963, 14)

It was also at the Erlangen conference that Reichenbach, Carnap, and a few other participants, first decided to create a journal for scientific philosophy. Excited about their shared sense of purpose, the participants felt that scientific philosophers needed a platform to advertise their findings to the German academic community.

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<sup>4</sup> See Carnap’s diary entry of April 14, 1923 (RCP, 025-72-02). Eventually, Carnap came to prefer Vienna over Kiel when Schlick offered to ‘habilitate’ him. See Carnap’s notes of his first meeting with Schlick (August 16, 1924, RCP, 029-32-51).

<sup>5</sup> See Richardson (1998), Carus (2007), Leitgeb and Carus (2020), and the papers collected in Damböck (2016) for detailed discussions of Carnap’s early philosophical development.

<sup>6</sup> See Thiel (1993) for a reconstruction. Carnap’s handwritten circular about the conference shows that there were in fact two meetings. One on the theory of relations (*Beziehungslehre*) and one on the constitution of reality (*Aufbau der Wirklichkeit*) (February 19, 1923, HR 015-50-03).

Carnap left Europe for his first trip to the United States about a month after the Erlangen conference. And although it was Carnap's primary aim to visit his family-in-law, he also made use of the opportunity to connect with American academics. In New York, he attended the twenty-ninth meeting of the American Mathematical Society and had private conferences with a number of mathematicians, including E. V. Huntington, E. Kasner, C. Keyser, and J. W. Young, who all turned out to be surprisingly interested in scientific philosophy. In a letter to Reichenbach, Carnap writes:

In general, the well-known fact that Americans are not very interested ... in theories that do not have a practical application still applies. In the last decade, however, there has been a growing interest in mathematics and mathematical logic ... there is even a philosophical school of thought closely related to mathematical logic called mathematical philosophy.<sup>7</sup>  
(May 7, 1923, HRP, 016-28-12)

The American mathematicians also seemed to be very interested in the philosophy of physics, in particular the foundations of relativity theory. Especially Huntington, a Harvard mathematician and one of the American postulate theorists, was pleased to hear about the work that was being done in this field in Germany. Conversely, Carnap was surprised to find a substantial literature on the philosophy of relativity theory in the English-speaking world and recommended a number of works to Reichenbach, who, at the time, was finishing his *Axiomatik der relativistischen Raum-Zeit-Lehre*.<sup>8</sup>

Carnap also saw a new goal for the journal that the participants at Erlangen had started thinking about a few months before. Apparently, there were isolated but like-minded communities of scientific philosophers at a number of places. These communities had to be united, and the best way to do this was to create an *international* journal of scientific philosophy:

I spoke with several people about the journal and also visited some New York professors ... A journal that somehow comes close to our plans is missing in English. This deficiency is consciously felt by the people who work in our fields. ... If the German economic situation makes it possible in any way, we should absolutely try to realize the plan. If the negotiations with publishers and editors (Einstein, etc.; Russell would also be very important for England and America...) have been successfully completed, the first thing to do is ... to produce a circular asking people to contribute. (ibid.)

Reichenbach, likely inspired by Carnap's letter, met with Schlick to talk about the journal plan in August 1923 (HRP, 016-25-07), a few months before Carnap returned to Germany. Schlick, in turn, approached Russell, who answered that he would be happy to join the editorial board, as he deemed a journal on scientific philosophy to be of the "highest importance" (August 27, 1923, MSP, 114/Ru-2). Unfortunately, however, Springer refused to take the journal on board after a series of exploratory meetings; they did not want to limit its scope to "purely scientific philosophy" (Schlick to Russell, October 6, 1925, MSP, 114/Ru-8).<sup>9</sup> In the end, Reichenbach and Carnap had to wait until 1930, when the latter had already published his *Aufbau*, before they could start compiling the first issue of their

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<sup>7</sup> See also Limbeck-Lilienau (2010, 95). Russell had published a book titled *Introduction to Mathematical Philosophy* in 1919. Apparently, this title had puzzled Reichenbach and Carnap. In the above-mentioned letter, Carnap speculates that the American label might explain the "for us somewhat surprising title of Russell's last book" (ibid.).

<sup>8</sup> I discuss both Reichenbach's *Axiomatik* and his response to Carnap's letter in section II.2.

<sup>9</sup> See also Springer to Reichenbach, January 31, 1924 (HRP, 016-41-12).

long-awaited journal of scientific philosophy.<sup>10</sup> In the meantime, however, Carnap had been deeply impressed by the United States. When his father-in-law advised him to seek appointment at an American institution instead of going back to the economically and politically unstable Weimar Republic, Carnap briefly hesitated but still decided to return to Europe in order to contribute to the development of scientific philosophy in Germany:

Although I am not very optimistic about the situation, I still believe strongly in the vital force of the German intellectuals ... For now, I will therefore not follow the advice to move to America, as long as the shape of economic and cultural life in Germany and my own economic situation does not yet force me to do it. I think that those who can still afford it must help out as long as they still believe that their efforts will be effective in the future ... I have the impression, however, that the United States ... have a more promising, intellectually fruitful future than people in our country usually think.<sup>11</sup> (Carnap to Scholz, August 13, 1923, RCP, 102-72-09)

### I.3. American *Aufbau*

Despite his early efforts to unite European and American scientific philosophers, Carnap's own work was virtually ignored by American scholars in the 1920s. Although the *Aufbau* would turn out to be of crucial importance to the development of philosophy of science in Europe, Carnap's first book was neither mentioned nor cited in any major American journal in the first years after its publication.<sup>12</sup> Even Artur Liebert, who annually updated the American community about developments in German philosophy in *The Philosophical Review*, completely ignored Carnap's work in the late 1920s and early 1930s. Whereas Helen Knight occasionally updated the British community about the development of scientific philosophy on the continent,<sup>13</sup> Liebert does not mention German scientific philosophy in any of his overviews until 1936, when Carnap was already touring the United States.<sup>14</sup>

The American reception of European scientific philosophy radically changed in the early 1930s, however, when Herbert Feigl and Moritz Schlick took up visiting positions in the United States.<sup>15</sup> Especially Feigl, who spent a year at Harvard in the 1930-31 academic year, had a crucial impact on the American reception of Carnap's philosophy. Not only did he convince key Harvard professors like C. I. Lewis that the Vienna Circle was "the most promising of present movements in Continental philosophy" (April 14, 1931, HFP 03-53-01), he also played an active role in advertizing

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<sup>10</sup> In 1930, Reichenbach and Carnap took over the editorship of *Annalen der Philosophie* and turned it into *Erkenntnis*. For a reconstruction, see Hegselmann and Siegwald (1992).

<sup>11</sup> See also Carus (2007, 159-60).

<sup>12</sup> The only exception is Kurt Grelling's paper about Russell's metaphysics in *The Monist*. In this paper, Grelling notes that Russell's approach to philosophy is also spreading in the German-speaking world, with Carnap and Wittgenstein as the most significant representatives (1929, 501). Grelling, however, was a member of Reichenbach's Berlin Circle, not an American philosopher.

<sup>13</sup> See, for example, the 1931 edition of her annual "Philosophy in Germany", approximately one third of which is devoted to an extensive discussion of "the scientific philosophy expounded in *Erkenntnis*" (Knight 1931, 98).

<sup>14</sup> Liebert, who was a colleague of Reichenbach until 1933, surely knew about the developments in scientific philosophy but appears to have ignored them because he was strongly opposed to their views about metaphysics. See, for example, Liebert (1936).

<sup>15</sup> This paragraph and the next two largely build on Verhaegh (2020).

Carnap's philosophy to the younger generation of philosophers and psychologists.<sup>16</sup> Most importantly, he published a logical positivist manifesto with Albert Blumberg, an American philosopher who, like Feigl, had written a dissertation under Schlick's supervision. In this manifesto, titled "Logical Positivism: A New Movement in European Philosophy", Blumberg and Feigl introduced the views of Carnap, Reichenbach, and Schlick to the American philosophical community as a fusion of the "positivistic-empirical" tradition of Hume and Mach and the "logical" tradition of Frege and Russell, arguing that the resulting synthesis is so fruitful that it is "[c]omparable in importance with the Kantian synthesis of rationalism and empiricism" (1931, 281).<sup>17</sup>

For our present purposes, it is important to note that Blumberg and Feigl presented Carnap as the central figure of logical positivism. Not only is he the philosopher who receives by far the most attention in the manifesto.<sup>18</sup> Blumberg and Feigl also use most of the first sections to present Carnap's *Aufbau* as the "most radical and elaborate development" of the movement's view that knowledge "expresses the formal structure but not the content of experience" (1931, 285). Furthermore, the *Aufbau* also plays a central role in the fourth section of the manifesto, as it presents Carnap's *Konstitutionstheorie* as one of the clearest examples of their central metaphilosophical claim that it is "the nature and aim of philosophy" to "make propositions clear" (ibid., 292).

Blumberg and Feigl's manifesto had an impact on American philosophy that can hardly be overestimated. Within two years after its publication, logical positivism became a hotly debated topic in the United States. In 1932 and 1933 alone, the three main American philosophy journals (*The Journal of Philosophy*, *The Philosophical Review*, and *The Monist*) published dozens of papers and reviews that mention logical positivism, the Vienna Circle, and/or work of the philosophers that Blumberg and Feigl had identified as the most important representatives of the 'new movement in European philosophy'. In fact, the movement became so widely known in the years following the publication of the manifesto, that it quickly became acceptable to complain about a book in a review if it *failed* to discuss the views of the logical positivists:

Lenzen (1932, 585) in a review of C. E. M. Joad's *Philosophical Aspects of Modern Science*: "Mr. Joad does not even mention the very important positivistic movement in Central Europe, the leaders of which are Schlick, Carnap, Philipp Frank, etc."

Morris (1933, 716) in a review of J. Wahl's *Vers le Concret: Études d'Histoire de la Philosophie Contemporaine*: "It is significant that Wahl does not mention the logical positivists ... If the empiricism sampled in this volume may be said to be tender-minded ... the companion tendencies of logical positivism ... represent the tough-minded wing of empiricism."

Especially the young generation appears to have been excited about Carnap's philosophy (and logical positivism more generally). In a letter to Schlick, written only three years after the publication of Blumberg and Feigl's paper, C. I. Lewis aptly summarized the excitement about Carnap's work by

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<sup>16</sup> It was Feigl, as we shall see in section I.5, who convinced Quine to visit Carnap in Prague. Likewise, it was Feigl who "introduced the Harvard psychologists to ... logical positivism" (Boring, 1950, 656), thereby playing a major role in igniting the operationist turn in American psychology.

<sup>17</sup> Feigl himself also thought of the paper as a manifesto. In a letter to Schlick, he described it as a "Propaganda-notiz" (April 5, 1931, MSP, 99/Fei-19).

<sup>18</sup> Carnap is mentioned 13 times in the main text of Blumberg and Feigl's paper; more than Reichenbach (8 mentions), Schlick (3), Hahn (1), Frank (0) and Neurath (0) combined.

noting that logical positivism “easily takes first place in the interest and discussions of our students”, adding that anything Carnap writes “will be eagerly read in this country”.<sup>19</sup>

The first American responses to logical positivism (and Carnap in particular) were not unanimously positive, however. Not only was there a predictable backlash from metaphysicians who objected to Carnap’s view that their theories are without cognitive significance,<sup>20</sup> there were also several philosophers who objected to the *Aufbau* project itself. In his paper “On the Logical Positivism of the Viennese Circle”, for example, Edward Ginsburg discusses a list of what he deems to be problematic assumptions in the *Aufbau*, arguing that it is “thoroughly erroneous” to presuppose that we can “bifurcate cognition into two discrete factors—the formal ... and the empirical” and that it is “highly questionable” whether it is possible to devise a “single, final criterion system of all scientific (legitimate) concepts” in the first place (1932, 123, 129). In fact, even Charles Morris, who would come to play an important role in advertizing Carnap’s point of view after his trip to Europe in 1934,<sup>21</sup> was initially very critical. In a paper presented at the 1933 Central APA meeting, Morris accused the logical positivists, and especially Carnap, of being committed to an implausibly strong variant of solipsism (Morris 1934).

#### **I.4. Lewis’ presidential address**

Morris was not the only pragmatist to object to Carnap’s alleged solipsism. Three months after Morris presented his paper, Carnap’s philosophy took center stage at the 1933 Eastern APA meeting, where C. I. Lewis used his presidential address to systematically evaluate Carnap’s *Aufbau* project. Lewis, without doubt one of the most influential philosophers in the United States since the publication of *Mind and the World-Order* (1929), used the opportunity to state in detail (1) why he believed that Carnap’s project (and logical positivism more generally) rests on some problematic assumptions and (2) why approaches that reject those presuppositions (most notably, pragmatism) are able to offer more nuanced answers to questions about the empirical meaning of traditional philosophical problems. Although one can only speculate about what motivated Lewis to use his presidential address for an examination of Carnap’s views, it seems likely that he was responding to the popularity of logical positivism in the United States. Lewis appears to have felt obliged to explain where he stood vis-à-vis the Vienna Circle because several philosophers had described his theory as an American variant of logical positivism. Victor Lenzen, for example, had talked about “the logical positivism of the Viennese school and the *related* pragmatic views of C. I. Lewis” and Blumberg and Feigl had listed Lewis as a philosophical ally in their manifesto.<sup>22</sup>

Lewis opens his address by explaining that there are important similarities between pragmatism and logical positivism. Both perspectives rely on a strongly empiricist (or verificationist) criterion of significance and both consider the criterion to be of vital importance in protecting philosophy against “verbal nonsense” (1934, 146). The logical positivists, however, Lewis continues, carry this attitude too far by repudiating *all* problems of “traditional metaphysics” as well as *all*

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<sup>19</sup> Lewis to Schlick, December 14, 1934, MSP, 107/Lewis-1.

<sup>20</sup> See, for example, Gamertsfelder (1932), who argued that the verifiability criterion is too strong to adequately distinguish between the meaningful and the meaningless.

<sup>21</sup> See section II.8.

<sup>22</sup> See Lenzen (1932, 585, my emphasis) and Blumberg and Feigl (1931, 281). In a letter to Schlick, Feigl even claims that Lewis’ conceptual pragmatism is “barely distinguishable from our positivism” (December 6, 1930, MSP, 99/Fei-17).



“value-theory and normative science” and he announces that it is his main aim to investigate which positivistic commitments might explain these more radical conclusions:

Ever since the provisional skepticism of Descartes ... the attack upon any problem of reality has always been shadowed by the question ‘How do you know?’ ... The last thirty-five years have witnessed a growing emphasis upon ... the question ‘What do you mean?’, asked with the intent to require an answer in terms of experience ... [D]evelopments which brought it to the fore: pragmatism and the ‘pragmatic test’ ... and ... the logical positivism of the Vienna Circle, whose program is based throughout upon this consideration of empirical meaning ... The purpose of what follows will be to explore ... the limitations imposed upon significant philosophic discussion by [the] requirement of empirical meaning; in particular ... issues which are likely to divide those who approach these problems with the thought of James and Peirce and Dewey in mind from the logical positivists.<sup>23</sup> (1934, 125-6)

One of the central issues that distinguishes pragmatism from logical positivism, Lewis argues, is Carnap’s ‘methodological solipsism’. Whereas an empirical criterion of meaning by itself does not warrant the logical positivists’ conclusions about metaphysics and ethics, Carnap’s solipsism—defined by Lewis as the view that reality as we know it is “nothing, finally, but a first-person construction from data given in the first person”—does explain why the positivists arrive at the conclusion that metaphysics and ethics are “without meaning, in the theoretical or empirical sense of that word” (ibid. 126, 128). And although Lewis correctly acknowledges that methodological solipsism is not a fundamental commitment of the *Aufbau* (see section I.7), he still views it as one of the main explanations for the logical positivists’ conclusions about ethics and metaphysics:

[The] repudiation of metaphysics and normative science by the logical positivists cannot ... be regarded as an implication of the empirical-meaning requirement alone. At least an important light is thrown upon it by taking into account that ‘methodological solipsism’ in accordance with which their program is developed. Even though they regard this procedure as advantageous rather than prescribed, still the negations or limitations which characterize it seem to underlie their theses. (ibid., 127)

Lewis offers several objections to methodological solipsism in his paper, the most important of which is an argument which aims to show that it reduces ‘to absurdity’ if pushed to the limit. If we take seriously the idea that all meaningful knowledge should be translatable in terms of immediate first-person experiences, Lewis argues, we end up with a radically distorted picture of reality. The past becomes nothing but a ‘present experience of recollection’ and the future nothing but a ‘present experience of anticipation’. In general, “nothing can be meant except what is *actually* present in the experience” and “knowledge would collapse into the useless echo of data directly given to the mind *at the moment*” (ibid., 131, my emphasis). Although both logical positivists and pragmatists are strongly committed to the view that “knowing begins and ends in experience”, the former seem to be ignoring that knowing does not “end in the experience in which it begins”. My assertion about the watch on my

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<sup>23</sup> Lewis does not explicitly mention Carnap in these and similar passages. Instead, he mostly talks about logical positivism in general. His correspondence shows that he was mostly interested in Carnap’s views, however. In a 1933 letter to Feigl, for example, Lewis announces that he has written a rough draft of his presidential address and that its central point will be to compare “the conception of *Sinn* in Carnap and my own way of thinking about meaning” (October 12, 1933, HFP, 03-52-06).

table, for example, is not verifiable by my *present* experiences but by what I *would* experience if I were to pick up the watch. For only then would I be able to “observe certain familiar details ... not discernible at this distance”. The verifying experience, in other words, “is not actual” and my assertion ... cannot be translated in terms of my *current* first-person experiences (ibid., 137).

Once we recognize that meaning ‘transcends’ immediate first-person experience, Lewis argues, we also open the way for a subtler picture about ‘verifiability’. All that is required for a meaningful assertion is that we should at least know *what it would take* for any future experience to verify it. It is by no means a requisite that we actually verify the assertion, that we are capable of verifying the assertion, or even that it is physically possible to verify the assertion. Even if it is physically impossible to directly observe elementary particles because they are “too small to be perceived”, Lewis maintains, assertions about the existence of elementary particles are meaningful. We know, after all, what it would take for any experience to verify them: we know, for example, that our assertions would be verified if we were to observe the particles through a super-microscope, even if we suspect that it is physically impossible for such a microscope to be built. In other words, we have to keep in mind the distinction between ‘knowledge’, which requires actual verification, and ‘meaning’, which requires only that we know what verification would entail: “*imagination* is sufficient for empirical meaning though it requires *perception* for verification” (ibid., 144).

Lewis ends his paper by showing that his criterion even legitimizes certain metaphysical questions. Whereas the logical positivists argue that questions about Berkeley’s tree, about the reality of the external world, and about the existence of other minds are meaningless, Lewis maintains that they are meaningful if empirical meaning transcends direct first-person experience. The question “whether you are another mind” is “a question of fact”, for example, because I “can *envisage* what I mean” when “I assert that you are not an automaton”. Just as I can imagine my own future pain (thinking about my dentist appointment) “as distinct from the experience in which I now imagine it”, I can imagine *your* pain “as distinct from all I can literally experience of you” (ibid., 146). Likewise, it is meaningful to ask whether the universe would still exist if there were no minds to observe it because we can “envisage this hypothesis by means of imagination, and hence in terms of what any mind like ours *would* experience if, contrary to hypothesis, any mind *should* be there” (ibid., 144). Philosophical questions about other minds or the external world, Lewis concludes, “cannot be exorcized by definitions—by defining ‘meaningful’ so as to limit it to the verifiable, and ‘verifiable’ by reference to the egocentric predicament” (ibid., 146).

## **I.5. Two Harvard logicians**

Feigl’s move to the United States not only had a significant effect on the American reception of logical positivism. It also made Carnap, at the time still unaware of the growing attention for his work across the Atlantic, reconsider a career in the United States. Already in 1931, archival evidence shows, Carnap seems to have been considering following his former colleague in applying for a fellowship to spend a period at Harvard. He talked with Feigl about his prospects in the United States when the latter came back to Europe a few months before starting a new job at the University of Iowa (June 11, 1931, RCP, 025-73-05) and he asked Schlick to recommend him for an American fellowship at the newly-founded Oberländer Stiftung (December 7, 1931, RCP, 029-29-15), and, a bit later, the Rockefeller Foundation (February 17, 1933, MSP, 144/Rock-3).

At first, Carnap seemed exclusively interested in a *short-term* visit to the United States. He had recently obtained a job at the German University of Prague and he had every hope that this meager position would soon be upgraded to a full professorship. A short period in the United States could help him to boost his international profile without hurting his prospects in Prague. If he were to

spend a year at an American institution, he could work with some of the like-minded mathematicians he had met in 1923<sup>24</sup> as well as advertise his work to US philosophers and philosophy students, who, Schlick had told him, were much more open to logical positivism than the German-speaking world.<sup>25</sup>

Carnap got a first taste of the growing American attention for his work when he was visited by two recently graduated Harvard logicians between February 1932 and April 1933. The first of the two, William T. Parry, was a student of Lewis and had written a dissertation in which he developed a distinction between structurally necessary and intensionally necessary propositions, the former of which “can be known to be true (or false) by consideration of its logical structure alone” whereas the latter “can be known to be true from knowledge of the meaning of terms” (Parry 1932). Carnap’s notebooks show that the two had extensive discussions about Parry’s dissertation<sup>26</sup> and the academic climate at Harvard. In addition, there is quite some evidence that the American logician updated Carnap about Lewis’ views on strict implication<sup>27</sup> as well as Henry Sheffer’s work on axiomatized logics.<sup>28</sup> And although Carnap still had his doubts about modal logic in 1932 (March 9, RCP, 025-75-10), his meetings with Parry likely confirmed his impression that Harvard was *the* place to visit in the United States. Indeed, Schlick’s recommendation letter for the Rockefeller Foundation shows that Carnap was mostly interested to spend a year at Harvard.<sup>29</sup>

Two weeks after Schlick sent his recommendation letter, Carnap was visited by Quine, at the time still a recently graduated Harvard logician, who was touring Europe on a Sheldon traveling fellowship and had just completed a dissertation in which he developed a ‘logic of sequences’, a system that aimed to generalize the *Principia Mathematica*.<sup>30</sup> Carnap and Quine appear to have hit it off immediately. In his report about his year in Europe, Quine recounts their frequent meetings in the five weeks that he spent in Prague, adding that these meetings alone would have been “adequate academic justification” for his entire year in Europe (January 8, 1934, WVQP, Item 3254). Quine had already read the *Aufbau* a few months before his Prague visit and was eager to learn about Carnap’s new book project, *Logische Syntax der Sprache*. After an intense study of the manuscript, Quine became convinced that it was probably “the most important document” he “ever encountered”

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<sup>24</sup> In a letter to Felix Kaufmann, Carnap mentions that one of the motives for seeking a Rockefeller Fellowship is that “American mathematicians are very interested in foundational questions”. He explicitly mentions Huntington, the mathematician he had met in 1923, as someone with whom he would like to collaborate (Sept. 27, 1933, RCP, 029-22-08). See Limbeck-Lilienau (2010, 129).

<sup>25</sup> See Schlick’s letter to Carnap from Berkeley, where the former held a visiting position in the 1931-32 academic year: “There are ... really intelligent people here... The participants in the seminar ... are interested, eager to learn, and not as prejudiced as most German philosophers” (September 19, 1931, RCP, 029-29-16). Feigl was equally impressed by his students at the University of Iowa: “I only have advanced students in my courses ... The students here are mostly level-headed, critical, and in any case not as metaphysically inclined as many of ours” (November 23, 1931, HFP, 01-01-10).

<sup>26</sup> See Carnap’s note “Dr. William T. Parry, *Implication*” (March 12, 1932, RCP, 080-29-19).

<sup>27</sup> See Carnap’s 9-page summary of a discussion with Parry at the Hahn-Gödel seminar in Vienna (February 15, 1932, RCP, 080-29-18).

<sup>28</sup> See Carnap’s diary entry for March 12, 1932 (RCP, 025-75-10).

<sup>29</sup> In addition to working with Huntington (see footnote 24), Carnap wanted to “do some work with Professor Lewis, Professor Sheffer and Professor Whitehead” (February 17, 1933, MSP, 144/Rock-3).

<sup>30</sup> See Quine (1932). It was Feigl who had advised Quine to visit Carnap. In a letter from December 29, 1931, Feigl notes that meeting Carnap would be indispensable for an aspiring logician: “Our best logician, *Carnap* ... has moved to Prague ... I would advise you to see him at any rate” (Feigl to Quine, December 1931, WVQP, Item 345, original emphasis).

(January 8, 1934, WVQP, Item 3254).<sup>31</sup> Conversely, Carnap was excited to meet another Harvard logician who could update him about academic life in the United States. Carnap's diary and correspondence show that the two regularly talked about American academia, about the political climate in the United States, and about Carnap's chances of getting a fellowship.<sup>32</sup> In addition, Quine's visit seems to have confirmed Carnap's impression that Harvard was a hotspot for mathematical logicians. Indeed, when he specified his motivations for seeking a Rockefeller Fellowship a few months later, he explicitly talked about a "Lewis-Sheffer circle" at Harvard, referring back to his meetings with Parry and Quine:

In America, especially at Harvard University, people are thoroughly engaged with logic; twice I had interesting exchanges with fellows from the Lewis-Sheffer circle—Dr. Parry and Dr. Quine—who visited me in Prague. The latter was here for five weeks, especially with him I had very well-informed and lengthy discussions. (Carnap to Kaufmann, September 27, 1933, RCP, 028-22-08)

## **I.6. Carnap's *Amerikaplan***

Although Carnap only sought a *temporary* fellowship in the first two years after Feigl's emigration, his plans quickly started to change after March 1933, when the brewing political tensions in Central Europe came to a sudden eruption. On March 4, the Viennese chancellor Engelbert Dollfuss abolished Austrian democracy by suspending parliament and preventing members of the opposition from entering the chamber. One day later, the Nazis obtained almost a majority in what would turn out to be Germany's last multiparty election until the end of the Second World War. The tension in Europe was palpable and the prospects for scientific philosophy seemed bleaker than ever. When Carnap asked Neurath for an update about the situation in Vienna (March 10, 1933, RCP, 029-11-21), the latter reported:

Here one lives in tension from day to day.... Everything is terrible and it is hard to stay optimistic about the overall course of history... Difficult times. Very difficult times. (March 13, 1933, RCP 029-11-20)

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<sup>31</sup> In a letter to his parents, Quine wrote that the manuscript is so valuable that he was going to set aside his own work in order to "completely master Carnap's ideas" (March 7, 1933, WVQP, unprocessed papers.). For a more detailed reconstruction of the first meetings between Carnap and Quine, see Verhaegh (ms.).

<sup>32</sup> See, for example, Carnap's diary entries for March 4 ("Quines with us ... Tell us about ... America"), March 11 ("At Quines ... About studies and exams in America"), and April 4 ("Afternoon Quines here... They tell me, if it does not work out with Rockefeller, to write to American universities. They believe I certainly have prospects there") (RCP, 025-75-11). For Quine's remarks about the political climate, see Carnap's entry for March 22: "Quine here ... He says that in America most professionals ... are socialists" (RCP, 025-75-11). It is unlikely that Quine intended this to be a positive thing but Carnap certainly must have viewed this as a big plus.

The events of March 1933 seem to have been a turning point in Carnap's plans for the future, especially when he realized that scientific philosophers might soon be prohibited from publishing,<sup>33</sup> and when it gradually started to dawn on him that he could forget about a full professorship at Prague. In the above-mentioned letter to Kaufmann, whom he also asked to write a recommendation letter to the Rockefeller Foundation, Carnap shares the details of what he by then called his '*Amerikaplan*':

Privately, my *Amerikaplan* also involves the idea to look for a permanent position over there. Germany is now excluded for me; and here in Prague there is no longer any prospect that my miserable *ausserordentliche Professur* ... will become an ordinary professorship; these are restricted and dismantled everywhere. In consequence, I want to find something better as soon as possible.<sup>34</sup> (September 27, 1933, RCP, 028-22-10).

Once he had decided to emigrate, Carnap started to do everything in his power to find a position in the United States, especially when he realized that he was definitely not the only academic who would be seeking a Rockefeller Fellowship in the current political and economic climate.<sup>35</sup> He started taking intensive English language courses (RCP, 025-75-11), he accepted a position on the editorial board of the newly-founded American journal *Philosophy of Science*,<sup>36</sup> and he started to boost his profile in the United States by publishing some papers in English for the first time in his career (Carnap 1934bcd; 1935). Most importantly, however, Carnap started to make full use of his connections in Europe and the United States. Where he seems to have solely relied on a recommendation letter from Schlick before the events of March 1933, Carnap's correspondence shows that he asked (and received) recommendation letters from more than a dozen internationally esteemed philosophers and mathematicians (including Russell, von Neumann, Hahn, Lewis, Whitehead, Sheffer, and Huntington) in his second attempt to obtain a Rockefeller Fellowship.<sup>37</sup>

Unfortunately, however, Carnap's campaign came too late. Not only was the Rockefeller Foundation flooded with applications from academics who wanted to move to the United States, the organization also had to cut back on fellowships due to the effects of the Great Depression. Although H. M. Miller, the Rockefeller field officer in charge, was charmed by Carnap's "very attractive

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<sup>33</sup> On April 8, 1933, the German Student Union called for a nationwide action against the 'un-German spirit' which would eventually result in the burning of approximately 25.000 books in Berlin. A few days later, Carnap writes to Neurath: "What do you think about the publication of my old lecture 'Von Gott und Seele'? ... Who knows how long we can still publish something like this" (April 17, 1933, RCP, 029-11-17).

<sup>34</sup> See also Carnap's letter to Quine from June 4, 1933: "if, first, I can get a one-year fellowship, learn the language well, deliver lectures, and perhaps an Engl. translation of my book will appear ... then all of this will naturally facilitate obtaining a professorship" (Creath 1990, 120).

<sup>35</sup> See Carnap to Feigl: "In Germany, everything is dismantled. Mathematics and physics in Göttingen is only a ruin. Many will now turn to America. This will probably also ... really reduce my chances" (June 21, 1933, HFP, 02-69-02).

<sup>36</sup> See Carnap to Feigl (June 21, 1933, HFP, 02-69-02).

<sup>37</sup> See (RCP, 028-22-09) for a list. It appears that Carnap's had first attempted to request a Fellowship in the social sciences (January 15, 1934, RAC, Box 327, Reel M Mil 1, Frame 956). When his request was denied, he resubmitted his application to the mathematics and natural sciences department. This is likely the reason why he asked so many mathematicians to write a recommendation letter.

personality” and the “numerous strong letters” that had been sent to Paris, the application was definitively denied in February 1934.<sup>38</sup>

### I.7. Carnap’s response to Lewis

Lewis’ presidential address did much to fuel the reception of Carnap’s philosophy in the United States. Still, he misinterprets Carnap’s position in important respects. In the late 1920s, Carnap did not defend the staunch position that Lewis dismisses in his paper. Especially in *Scheinprobleme*, the pamphlet that accompanied the publication of the *Aufbau*, Carnap explicitly defended a very mild criterion of significance, arguing that propositions can be meaningful even if they are “neither supported nor testable”. If anything, Carnap’s criterion of significance came quite close to the position Lewis advanced in “Experience and Meaning”. For although Carnap strongly rejected metaphysical questions, he defended the view that a statement *p* is meaningful “if experiences which would support *p* or the contradictory of *p* are at least *conceivable*” (Carnap 1928b, 327-8, my emphasis).<sup>39</sup>

Second, Lewis’ interpretation of Carnap’s position was strongly outdated. In “Experience and Meaning”, Lewis mostly relies on the *Aufbau* but he seems to be unaware that Carnap had radically changed his views in the early 1930s. Even if Lewis would have been correct that the *Aufbau* entails “that what is verifiable must be verifiable here and now”,<sup>40</sup> Carnap explicitly rejects the “absolutism of the ‘given’” in “Über Protokollsätze”, published almost a year before Lewis wrote his address:

In all theories of knowledge up until now there has remained a certain absolutism: in the realistic ones an absolutism of the object, in the idealistic ones ... an absolutism of the ‘given’ ... There is also a residue of this idealistic absolutism in ... our circle ... it takes the refined form of an absolutism of the ur-sentence ... It seems to me that absolutism can be eliminated. (Carnap 1932, 469)

Carnap’s change of heart had three important consequences for his philosophy, all ignored by Lewis. First, he started to view ur-sentences (protocol sentences) as relative, adopting Popper’s seminal swamp-metaphor, who argued that science “does not rest upon solid bedrock” but should be viewed as a building erected on piles driven down into a swamp:

The piles are driven down from above into the swamp, but not down to any natural or ‘given’ base; and if we stop driving the piles deeper, it is not because we have reached firm ground. We simply stop when we are satisfied that the piles are firm enough to carry the structure, at least for the time being.<sup>41</sup> (Popper 1935, §30)

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<sup>38</sup> See H. M. Miller’s report of his meeting with Carnap (January 15, 1934, RAC, Box 327, Reel M Mil 1, Frame 956).

<sup>39</sup> Indeed, Carnap himself described his principle as an “as liberal a criterion of meaningfulness as the most liberal-minded physicist or historian would use within his own science” (Carnap 1928b, 327-8, my emphasis). See also Verhaegh (2020).

<sup>40</sup> Lewis to Feigl (October 23, 1933, HFP, 03-58-07).

<sup>41</sup> See Carnap (1932, 469): “in [Popper’s] testing procedure there is no last sentence; his system describes therefore the most radical elimination of absolutism”. Popper had convinced Carnap about his view in September 1932, when Feigl, Popper, and Carnap spent a few days in the Tyrolean Alps. See Carus (2007, 253).

Second, he started to follow Neurath in defending the view that elementary sentences are revisable. If our protocols are not absolute, Carnap maintained, we always have the option to revoke them when they conflict with some of our best-established hypotheses. Indeed, in his *Logische Syntax*, published about a year after “Über Protokollsätze”, Carnap would write that even when a hypothesis proves to be incompatible with a protocol sentence, “there always exists the possibility of maintaining the hypothesis and renouncing acknowledgment of the protocol-sentences” (1934, 318).<sup>42</sup>

From a developmental perspective, however, the third and most important change to Carnap’s philosophy had to do with the *nature* of the observation language, with the question whether or not we ought to start with physicalistic or phenomenalist protocol sentences. In “Über Protokollsätze”, Carnap for the first time argues that this is not a question of a fact but a linguistic decision:

this is a question, not of two mutually inconsistent views, but rather of *two different methods for structuring the language of science both of which are possible and legitimate* [...] possible answers [...] are to be understood as suggestions for postulates; the task consists in investigating the consequences of these various possible postulations and in testing their practical utility. (Carnap 1932, 457-8)

In arguing that the question of what protocol language to adopt is a question of linguistic decision, Carnap was paving the way for his *Principle of Tolerance* (1934a, 52)—the view that there are no morals in logic, and that “everyone is at liberty to build up his own logic, i.e. his own form of language, as he wishes” (1934a, 52)—a principle which would come to be central to his philosophy from 1933 onwards.

Lewis is not completely to be blame for (1) his misinterpretation of Carnap’s position in the *Aufbau* and (2) his ignorance of the latter’s most recent philosophical developments. For Lewis’ most prominent source of information about Carnap’s views—Herbert Feigl—had himself defended a very similar interpretation of the *Aufbau* in his ‘*propaganda-notiz*’.<sup>43</sup> In addition, Feigl’s correspondence with Lewis in the months leading up to the presidential address strongly suggests that he never warned Lewis that Carnap’s views about protocol sentences had changed considerably in the last few years.<sup>44</sup> If anything, Feigl himself had kept on advertising the *Aufbau* perspective in his own publications, despite the fact that he was clearly aware of the changes to Carnap’s views. Three months before Lewis’ presidential address, for example, Feigl himself presented a paper in which he claimed that it “has been *shown* by Carnap that *any* concept of empirical knowledge can be constructed ... on the basis of fundamental elements and relations pertaining to *immediate* experience” (1934, 428-9, my emphasis). When Carnap first read this paper, he responded with uncharacteristic annoyance, reminding Feigl that he had changed his point of view and that he did not want to hear about the points of view of his *Aufbau* anymore.<sup>45</sup>

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<sup>42</sup> See also Carnap (1932, 469): “Neurath has been the first to turn decisively against [...] absolutism, in that he rejected the unrevisability of protocol sentences”.

<sup>43</sup> See, Blumberg and Feigl (1931, 295). In fact, even Carnap himself had started to reinterpret the *Aufbau* in foundationalist terms in the early 1930s. See Richardson (1998) and Uebel (2007). See Carus (2007, 166-77, 196-203) for an alternative interpretation.

<sup>44</sup> See (HFP, 03-53-06 to 03-53-09).

<sup>45</sup> Carnap would not be Carnap, however, if he did not add that he could also understand Feigl’s misrepresentation if he had done it to adapt the discussion to the American context (Carnap to Feigl, April 29, 1934, HFP, 02-69-03).

When Carnap learned about Lewis' argument in "Experience and Meaning", he also responded with disappointment, likely because he received the manuscript in February 1934—the very month in which he also learned that his Rockefeller application had been denied.<sup>46</sup> He had always considered the Harvard professor to be a philosophical ally and his *Amerikaplan* had mostly focused on the "Lewis-Sheffer circle", which he viewed—based on his experiences with Parry and Quine—as something like an American equivalent of the Wiener Kreis. It was Feigl, however, who changed Carnap's attitude toward Lewis' paper. Feigl, who perhaps felt guilty because he had regularly corresponded with Lewis in the months before the address, pointed out that the rapidly increasing attention for his philosophy in the United States could be used to *advance* his chances on the American job market, which, John von Neumann reported to Carnap, started to be "flooded with emigrants".<sup>47</sup> If he still wanted to have a chance of finding a position in the United States, he had to secure a direct offer from an American institution, and Lewis was still his most important ally in arranging such an invitation. In a letter to Schlick, Carnap explains:

Lewis ... sent me his published paper ... apparently with the desire that I reply to it. Actually, I did not really feel like it; but Feigl wrote me that this would be very important for my *Amerikapläne*, as I would need Lewis to realize them. And he strongly advised me to do this as detailed and seriously as possible. (Carnap to Schlick, May 13, 1934, RCP, 029-28-16)

In the months after Feigl's recommendation, Carnap started to compile a detailed sketch of a response to Lewis—a response that would eventually be published as "Testability and Meaning". It is no coincidence that this paper is often viewed as the crucial step in Carnap's transition from a strict positivism to a more liberal empiricism. For it is precisely this paper that figured as Carnap's attempt to (1) correct the American narrative about his philosophy and (2) build a bridge between logical positivism and pragmatism when he finally *did* manage to obtain an invitation from Harvard.

## **I.8. The Harvard Campaign**

When Quine learned that Carnap's Rockefeller application had been definitively denied, he immediately started a campaign to get his European colleague a position in the United States. Quine, who had returned to Harvard to take up a fellowship at the newly-founded Society of Fellows, first met with his former teachers Lewis and Whitehead, hoping that they would be able to pull some strings. In a letter to Carnap, Quine reported that Whitehead was very interested to have the German philosopher in the United States and that Lewis seemed hopeful because of the importance of Carnap's work (March 12, 1934, published in Creath 1990, 132). In the weeks that followed, Quine, Lewis, and John Cooley, Quine's friend and former fellow graduate student, started sending letters to a variety of universities in the country.<sup>48</sup> Lewis, moreover, discussed Carnap's situation with R. B.

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<sup>46</sup> See Carnap to Kaufmann (February 23, 1934, RCP, 029-21-21) and Carnap to Schlick (May 13, 1934, RCP, 029-28-16). Schlick told the Vienna Circle that "Carnap had felt very sad" when he learned about Lewis' criticisms. See Nagel to Carnap (January 5, 1935, RCP, 029-05-16).

<sup>47</sup> See Carnap to Kaufmann (February 23, 1934, RCP, 029-21-21)

<sup>48</sup> See, for example, Quine's letter to C. H. Langford, a logician from Ann Arbor: "Professor Whitehead has directed me to record his admiration for Carnap, and to quote him as sincerely wishing to see Carnap called to America" (March 12, 1934, WVQP, Item 621). It is interesting to see that Quine felt the need to downplay the importance of Carnap's *Aufbau* in his letter to Langford, likely



Perry, the chair of Harvard's philosophy department, who in turn wrote a letter to the dean of the faculty, describing Carnap as "an extremely stimulating person to have at Harvard" (Perry to Murdock, April 11, 1934, HUA, Department of Philosophy Records, UAV 687.10, Box 5).

Quine also discussed Carnap's case with L. J. Henderson, the chairman of the Society of Fellows. Henderson, who was best known for his work in biochemistry, was, in Quine's words, "extremely antimetaphysical" and had regularly discussed Carnap's philosophy with Quine at the weekly Society dinners.<sup>49</sup> When Quine told him about Carnap's problems in getting to the United States, Henderson asked Perry whether Quine could give a couple of public lectures about Carnap's philosophy in order to promote the German philosopher's cause with those in power. In a letter to his parents, Quine writes:

Dr. Henderson, chairman of the Society of Fellows, and professor Perry, chairman of the philosophy department ..., seem to have got together on a plan to have me give a couple of lectures on Carnap's ideas. Carnap has for some time been anxious to teach in an American university, and during the past year I have taken all opportunities to push the matter with those in power here ... I think a part of the growing interest in him at Harvard is due to my propaganda. Now I think there may be [a] hidden [motive] behind their inviting me to speak on Carnap ...: more dope on Carnap as a possible Harvard professor ... I am of course accepting. (September 29, 1934, WVQP, unprocessed papers).

Quine's hunch about the reason behind Henderson's invitation to lecture on Carnap's *Logical Syntax* was in the right direction but probably not completely correct: the dean, at this point, had already denied Perry's request to get Carnap to Harvard on faculty money.<sup>50</sup> Most likely, Henderson came up with the idea because he was a member of the advisory committee for the upcoming celebration of the three-hundredth anniversary of Harvard University and because he knew that Harvard had reserved an enormous amount of money to get the world's best academics to Cambridge for an honorary doctorate and participation in a series of special tercentenary conferences. If he could get Carnap an invitation to come to the United States as well as a Harvard honorary doctorate, this could be crucial for his chances on the U.S. job market.<sup>51</sup>

On November 8, 15, and 22, 1934, Quine gave three lectures on Carnap's *Logische Syntax der Sprache* (Quine 1934). And although Quine, like Lewis and Feigl one year before him, misrepresented Carnap's philosophy in important respects,<sup>52</sup> the lectures seemed to have the intended effect. Many Harvard academics and notables attended the lectures and were greatly enthused about

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because he worried that the latter might object to the most stringent varieties of logical positivism: "I might mention incidentally ... that [Carnap] now repudiates somewhat the viewpoint of his *Der Logische Aufbau der Welt* ... and that the final statement of his present doctrines is now with the publisher. This book, *Logische Syntax der Sprache* ... is one of the very great logico-philosophical works of the period" (ibid.).

<sup>49</sup> Quine to Carnap, March 31, 1935, published in Creath (1990, 164). Henderson had recently turned to the study of social systems and was writing a book about Pareto's sociology. In the book, which was published a year later, Carnap's influence is clearly visible. See Henderson (1935, 17-21).

<sup>50</sup> Murdock to Perry (April 18, 1934, HUA, Dept. of Phil. Records, UAV 687.10, Box 5).

<sup>51</sup> Indeed, Henderson had been invited for the first meeting of the advisory committee a few days before he asked Quine to prepare lectures on Carnap's syntax program (Conant to Henderson, September 17, 1934, LJHP, carton 3).

<sup>52</sup> For one thing, Quine misinterpreted the philosophical implications of Carnap's recent syntactic turn by completely ignoring the principle of tolerance. See Hylton (2001) and Verhaegh (2018, ch. 6; ms.).

Carnap's philosophy. Especially Charles P. Curtis, a Harvard trustee who was on the Central Committee of the tercentenary organization, seems to have been influenced by Quine's lectures.<sup>53</sup> In a letter to his parents, Quine writes:

The whole situation of the lectures was unique. As lawyer Curtis ... expressed it, there I stood under a bas-relief of the late metaphysician George Herbert Palmer, telling a gathering of professional philosophers that philosophy is nothing but syntax and that metaphysics is nonsense! And, as Curtis expressed it, not only telling them so but proving it to them ... [T]he attention was undivided. I have been meeting Professors Lewis and Sheffer weekly to discuss Carnap and be plied with questions; I am meeting them again this morning. So there is quite a stir about Carnap; a healthy phenomenon. (November 27, 1934, WVQP, unprocessed papers)

The case for inviting Carnap to the tercentenary celebrations was also furthered by the philosophy department. In the weeks before Quine's lectures, the department was asked to advise the Humanities committee<sup>54</sup> which "five or six leading" philosophers to invite for the tercentenary conferences and an honorary degree (October 11, 1934, HUA, Department of Philosophy Records, UAV 687.10, Box 3). Perry seems to have immediately thought of Carnap when he received the letter, as the latter's name is scribbled in the margins of the invitation (in addition to the names of philosophers like Bertrand Russell, Edmund Husserl, and Martin Heidegger). In the days that followed, Perry organized a vote among the philosophy faculty and, perhaps not surprisingly, Carnap made it to the list of six philosophers recommended by the philosophy department.<sup>55</sup> Next, Perry wrote a letter to the Humanities committee recommending the six philosophers, adding an extensive recommendation for Carnap written by C. I. Lewis, as he knew that Carnap would be mostly unknown to the members of the committee, especially when compared to philosophers like Dewey and Russell (Oct. 13, 1934, HUA, Records of the Terc. Celebration Office, UAV 827.114, Box 26).

Despite Quine's lectures, the institutional support from Harvard notables (Curtis and Henderson), and the recommendation from the philosophy department, the Humanities committee voted against Carnap's invitation on November 26. The tally sheet reveals that Carnap received only two votes from the eight committee members and was thereby excluded from the list of thirty humanities scholars to receive an honorary degree.<sup>56</sup> To some extent, the committee's vote did not come as a surprise. Not only was Carnap, forty-three years old at the time of the vote, very young to receive an honorary degree—the professors who did make it to the committee's list were over sixty-

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<sup>53</sup> In a letter to Carnap, Quine would later write: "Curtis ..., I think, is the chief responsibility for your tercentenary nomination" (August 24, 1936, in Creath 1990, 218).

<sup>54</sup> The organization of the tercentenary conferences was divided into four subcommittees, one for the humanities, and three for the biological, physical, and social sciences respectively.

<sup>55</sup> The recommended philosophers were Carnap, Dewey, Heidegger, Russell, Étienne Gilson, and G. E. Moore. Carnap ended third place in the vote (after Gilson and Dewey but before Heidegger, Russell, and Moore). He could have finished higher if the metaphysician John Wild had not put him on the absolute bottom of his ranking. The voting slips (most of which are anonymous) can be found in the Dept. of Philosophy Records (UAV 687.10, Box 3).

<sup>56</sup> The only votes for Carnap came from the historian William Scott Ferguson and from Whitehead, the sole philosopher on the committee. What probably did not help Carnap's case was that Whitehead had missed the first meeting of the committee due to illness. He therefore missed the chance to plea Carnap's case. The tally sheet and the voting ballots can be found in the Records of the Tercentenary Celebration Office (HUA, UAV 827.114, Box 26).

five years old on average (HUA, UAV 827.114, Box 26)—he was also not well-known outside a limited circle of philosophers and therefore failed to meet the criterion that invitations should only be sent to “the most distinguished and productive leaders of research” (Harvard Tercentenary Plans, HUA, UAV 827.2). Most importantly, Carnap’s *research* did not fit the selection criteria either. Each committee had the task to organize a few tercentenary symposia and “usability in symposia” was a hard criterion for the selection of the candidates for the honorary degrees (Minutes, December 19, 1934, LJHP, Carton 3). In an earlier meeting, the committee had decided to organize two symposia, one on “Authority and the Individual” and one “Independence and Borrowing in Institutions, Thought, and Art”, thereby excluding Carnap’s scientific philosophy as a relevant contribution.

In the end, however, Carnap *did* manage to get on the list of invitees, thereby securing the 2600 dollar honorarium (almost 50.000 dollars in today’s money) that finally allowed him to come to the United States for an extended period of time.<sup>57</sup> And although it is not completely clear who changed the committee’s mind, it is likely that the Harvard philosophers are responsible for the last-minute addition. For as soon as Perry learned about the first list of selected scholars, he wrote an angry letter to Jerome D. Greene, the general coordinator of the Harvard tercentenary:

I ... note with much regret that the Committee on the Humanities has seen fit to limit the selection of philosophers to men who are historians. This is I believe to be a very serious matter. It does not seem fair .... The essence of philosophy is systematic, and in Carnap and Heidegger we have chosen two men of great distinction, in whom the young scholars of the world are now greatly interested. (December 4, 1934, UAV 687.10, Box 3)

After Greene received the letter, he immediately approached Whitehead, the only philosopher on the Humanities committee, reporting that the Department regrets the “omission of Carnap and Heidegger” and asked him whether he could “weigh these complaints” and discuss them with Arthur Nock, the chair of the committee (December 5, 1934, HUA, UAV 827.114, Box 6). There is no direct evidence of what Whitehead advised but the result of the intervention is clear. One day later, the Humanities Committee met and decided to include Carnap on the list of invitees. Heidegger, on the other hand, was never invited (*ibid.*).

## **I.9. Testability and Meaning**

On December 15, 1935, Carnap and his wife Ina boarded an ocean liner at Bremerhaven, in the north of Germany. Carnap was about to embark on his second trip to the United States and this time he intended to leave Europe for good. Although he had commitments only up to September 1936, when he would be receiving his honorary degree, he had bought two one-way tickets. Carnap and Ina had emptied their house in Prague and put all their belongings in storage, ready to ship them as soon as he had found a position at an American institution. When Carnap arrived in Boston about a week later, he was awaited by Quine, with whom he would spend the Christmas holidays. In the week that followed, Quine introduced him to all the Harvard academics he had heard about in the preceding

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<sup>57</sup> In addition to the very generous financial compensation, Carnap also received free lodging and board, and a research assistant for the period he would spend at Harvard. For copies of the invitations, see HUA (UAV 827.114, Box 26) and (UAV 687.10, Box 7). See also Carnap’s first response to the tercentenary invitation: “You can imagine how glad I am about this first American invitation. They pay so well ... Now the bridge over the big water is once constructed, I have good hope that further steps may follow” (Carnap to Quine, March 14, 1935, in Creath 1990, 162).

years. He had dinner at the Society of Fellows, spent an evening at the Whiteheads, and had lunch with Huntington, who, Carnap noted in his diary, had forgotten about their first meeting in 1923. In addition, Carnap visited the bedridden Henderson, who was suffering from an ulcer, and met several of the students that had ignited the Carnap craze in the early 1930s. He met Susanne Langer, Henry Leonard, and Stanley Smith Stevens, committed members of a Carnap reading group, and he met Nelson Goodman, who was writing a dissertation that aimed to revive Carnap's *Aufbau* project.<sup>58</sup>

On December 28, Carnap, Quine, Goodman, Leonard, and David Prall drove to Baltimore for the APA Eastern Division Meeting, where Carnap was to deliver his first talk on American soil. The talk, "Testability and Meaning", was programmed on the final day of the conference, exactly two years after Lewis' presidential address at the same meeting in 1933. After an introduction from Arthur Lovejoy, a professor at the University of Baltimore, Carnap read (a shortened version of) his reply to Lewis, the paper Feigl had urged him to write in order to maximize his chances of finding a position in the United States (section I. 7). Today, 'Testability and Meaning' is often read as a paper in which Carnap abandons the verifiability criterion of meaning and paves the way for a more liberal variant of logical positivism—a variant which also allows theoretical terms if sentences containing the term cannot be translated into protocol sentences. From a historical perspective, however, the paper should be read as (1) a comprehensive response to Lewis, aiming to correct the American narrative about his philosophy and (2) an attempt to find common ground between pragmatism and the Vienna Circle. In his correspondence, Carnap systematically refers to the paper as his "reply to Lewis"<sup>59</sup> and in its first section, Carnap explicitly mentions that it is his goal to foster "a greater convergence" between the Vienna Circle and "related views of other empiricist authors and groups" (1936, 423).<sup>60</sup>

In "Experience and Meaning", Lewis had argued that Carnap conflated verificationism about knowledge with verificationism about meaning. Although we have to successfully test our theories about elementary particles if we want to *know* that electrons exist, these theories can still be *meaningful* if it is somehow impossible to test them. All that is required for a meaningful assertion is that we should at least know what it would take for any future experience to verify it (see section I.4). It is telling that Carnap opens "Testability and Meaning" by drawing exactly this distinction:

Two chief problems of the theory of knowledge are the question of meaning and the question of verification. The first question asks under what conditions a sentence has meaning ... The second one asks how we get to know something, how we can find out whether a given sentence is true or false. (Carnap 1936, 420)

Like Lewis, Carnap argues that the two problems are connected but that the criteria for significance are less strict than the criteria for knowledge: we know that a sentence is true if we actually observe it to be true but an assertion is already meaningful "if we kn[o]w what it *would be* ... to be found true" (ibid.). Carnap, in other words, wholeheartedly accepted that an assertion can be meaningful if it has never been tested.<sup>61</sup>

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<sup>58</sup> For an overview of the Carnap's first days in Boston, see Carnap's diary (RPC 025-82-01).

<sup>59</sup> See, for example, Carnap to Quine (October 28, 1935, in Creath 1990, 190).

<sup>60</sup> See also page 427, where he zooms in on pragmatism and explicitly mentions the "agreement ... between the present views of the *Vienna Circle* ... and those of *Pragmatism*, as interpreted, e.g. by *Lewis*" (p. 427, original emphasis).

<sup>61</sup> Note that it is not my intention here to argue that Carnap *changed* his position in response to "Experience and Meaning". Rather, Lewis' paper made Carnap realize that he needed to correct the American narrative about his philosophical commitments (see section I.7).

When we call a sentence *S* confirmable, we do not mean that it is possible to arrive at a confirmation of *S* under the circumstances as they actually exist. We rather intend this possibility under some *possible circumstances*, whether they be real or not... Whether the real circumstances are such that the testing of a certain sentence *S* leads to a positive result... is irrelevant for the questions of confirmability, testability and meaning of the sentence though decisive for the question of truth. (ibid., p. 457)

In addition to granting Lewis the distinction between verificationism about knowledge and verificationism about meaning, Carnap also explicitly distances himself from ‘methodological solipsism’—the core of Lewis’ analysis of the rift between pragmatism and logical positivism—arguing that the term “is so often misunderstood” that he “prefer[s] not to use it any longer” (p. 423-4). The foremost problem with methodological solipsism is that it has led commentators—Carnap explicitly mentions Lewis (p. 429)—to believe that Carnap is committed to the view that physical objects are *in fact* constructions out of sense data. Carnap, naturally, wants to avoid such a metaphysical interpretation at any cost. All problems of philosophy are disguised questions about the syntax of language and to interpret them as questions about reality is to be confused about the nature of philosophical questions. Philosophical assertions are often posed in what Carnap calls the *material mode of speech* (in which we talk about facts and things) but should actually be phrased in the *formal mode of speech* (in which we talk about propositions and thing-words):

It is a pseudo-thesis of idealism ... that a physical object (e.g. the moon) is a construction out of sense-data. Realism on the other hand asserts, that a physical object is ... cognized ... We—the Vienna Circle—neither affirm nor deny any of these theses, but regard them as pseudo-theses ... They arise from the use of the material mode. (ibid., 428-9)

The distinction between the formal and the material mode of speech also offered Carnap a way to endorse Lewis’ liberal views about significance without accepting the latter’s conclusion that some problems of metaphysics are meaningful too. Whereas Lewis argued that questions about the reality of the external world become meaningful once we realize that empirical meaning transcends immediate experience, Carnap maintains that such questions are ill-conceived. In an interesting passage in which he directly discusses Lewis’ examples from “Experience and Meaning”, Carnap argues:

The formulation in the material idiom makes many ... questions ambiguous and unclear... “Is the past more than the present recollection”?, “Is the future more than the present experience of anticipation”?... the use of the material idiom leads to a certain absolutism, namely to the neglect of the fact that the thesis is relative to the chosen language-system. The use of the formal idiom reveals that fact. (ibid., 429-30)

“Testability and Meaning”, in other words, was Carnap’s attempt to update the American philosophical community about his changed views (section I.7). He accepts Lewis’ more liberal empiricism—thereby building a bridge between the Vienna Circle and the pragmatists—without giving up on the elimination of metaphysics, one of the core motives of scientific philosophy since the Erlangen conference in 1923.

Carnap's address at the APA meeting in Baltimore was the beginning of a lecture tour that would take him to more than a dozen American universities in four months.<sup>62</sup> At these events, Carnap read a variety of papers but his central message in all of these presentations was one of unification. Where Blumberg and Feigl had emphasized the *differences* between logical positivism and pragmatism,<sup>63</sup> Carnap explicitly emphasized the connection between the two movements. In fact, he even adopted Charles Morris' proposal to replace the *term* 'logical positivism' with a new label ('scientific empiricism'), in order to emphasize this unity.<sup>64</sup> In one of his 1936 lectures, Carnap writes:

The views which I intend to explain have been developed with a philosophical movement in Europe which is often called Logical Positivism but which perhaps might be better called *Scientific Empiricism* ... Similar empiricist views have been developed in America ... Most of the groups mentioned, even those in Europe, worked most of the time independently from each other and only in the very last years have become aware of the fact that they stand on a common basis and are *members of one movement*. (1936, RCP, 081-03-01, my emphasis)

And although Carnap continued to divide the American philosophical community throughout his lecture tour—in a letter about the APA meeting, Quine reports that “there was great antagonism among the metaphysicians” (January 4, 1936, WVQP, unprocessed papers)—his conciliatory stance had the intended effect. In March and April 1936, just a few months after his arrival in the United States, Carnap received offers from Princeton University and the University of Chicago. Greatly relieved that he could definitively stay in the United States, Carnap accepted the Chicago offer.<sup>65</sup>

In June, Carnap returned to Cambridge for the tercentenary celebrations with a contract in his pocket. What followed was an intense summer filled with receptions, conferences, and summer schools. On September 18, the final day of the celebrations, Carnap received his honorary degree. In a specially built theater in Harvard Yard, packed with more than seventeen thousand people, Carnap was one of sixty-two academics to be commended by Harvard University. After a choir of almost two hundred students finished its performance of Händel's “Let Their Celestial Concerts All Unite”, James B. Conant, Harvard's president, read Carnap's name and praised his achievements: “Rudolf

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<sup>62</sup> Carnap's home base in the spring semester was the University of Chicago, who had offered him a short visiting professorship after they learned that he would be coming to the United States for the Harvard Tercentenary celebrations. For reconstruction of the Chicago campaign for Carnap (and Reichenbach), see section II.8. Carnap's lecture tour would take him to, among others, Ann Arbor, Buffalo, Columbia, Cornell, Iowa, Princeton, Urbana, and Yale. See Carnap's letters to Elisabeth Schöndube (RCP, 025-69-03, 025-69-06 and 025-69-09) as well as Limbeck-Lilienau (2010, 131).

<sup>63</sup> See, e.g., the first section of their manifesto: “it is precisely the union of empiricism with a sound theory of logic which differentiates logical positivism from ... pragmatism ... certain pragmatists, neglected pure logic entirely by confusing it with psychology and scientific method” (1931, 282).

<sup>64</sup> Morris had proposed the label at the Eighth International Congress of Philosophy at Prague in September 1934. See Morris (1935a).

<sup>65</sup> Again, see section II.8 for a reconstruction of Morris' campaign to bring Carnap to Chicago. Carnap chose Chicago over Princeton because the latter could not guarantee that the position would become permanent after a year (Ina Carnap to Hempel, April 19, 1936, RCP, 102-14-23).

Carnap: *Doctor of Science*. A philosopher of penetrating insight who lights the way for those who seek through logic the unity of the world”.<sup>66</sup> Carnap’s *Amerikaplan* had finally succeeded.

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<sup>66</sup> Harvard University (1937, 221, original emphasis). See also the *Harvard University Tercentenary Gazette* (issues 1-8, June 12 to Sept. 11, 1936) and Elliott (1999, 54).

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