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Sign and Object: Quine's forgotten book project

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Abstract W. V. Quine's first philosophical monograph, *Word and Object* (1960), is widely recognized as one of the most influential books of twentieth century philosophy. Notes, letters, and draft manuscripts at the Quine Archives, however, reveal that Quine was already working on a philosophical book in the early 1940s; a project entitled *Sign and Object*. In this paper, I examine these and other unpublished documents and show that *Sign and Object* sheds new light on the evolution of Quine's ideas. Where "Two Dogmas of Empiricism" is usually considered to be a turning point in Quine's development, this paper redefines the place of 'Two Dogmas' in his oeuvre. Not only does Quine's book project reveal that his views were already fairly naturalistic in the early 1940s (Sects. 3–5); *Sign and Object* also unearths the steps Quine had to take in maturing his perspective; steps that will be traced in the second half of this paper (Sects. 6–9).

1 Introduction

More than half a century ago, W. V. Quine published *Word and Object*, a book that is widely viewed as one of the most influential monographs of twentieth-century philosophy. In that book, Quine presents his seminal views on language, science, and

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ontology, and incorporates them in a new and comprehensive naturalistic framework; a metaphilosophy in which all forms of inquiry—philosophy, science, and common-sense—are viewed as part of a single continuous enterprise.

Word and Object has had a long-lasting influence on analytic philosophy. Not only have Quine's views on language "forced upon the philosophical world" a "process of thinking and rethinking" what we mean by translation and meaning (Putnam 2002, p. 274), his ideas about the relation between philosophy and science have arguably been the most significant influence on what is often called the "naturalistic turn" in contemporary philosophy (Leiter 2004, pp. 2–3).

Despite the book's influence, however, little is known about the genesis and development of Quine's ideas. Although historians of analytic philosophy in recent years have shown an increasing interest in post-war analytic developments, there is still much to be learned about the evolution of Quine's views.[1] Fortunately, an astonishing amount of documents relating to the development of Quine's views—notes, academic and editorial correspondence, drafts, lectures, teaching materials, and grant proposals—has been saved and stored at the W. V. Quine Papers at Houghton Library. These documents provide a unique opportunity to minutely reconstruct the evolution of Quine's ideas in a crucial stage of his development, i.e. the period in which he grew from a respected logician to a world-leading philosopher.

In this paper, I will discuss a large series of notes, letters, and manuscripts from the 1940s and early 1950s—documents which show that Quine, from the early 1940s onwards, started working on his first philosophical monograph, a book entitled *Sign and Object*. The Houghton archives contain several sets of autograph and type written notes from the 1941–1946 period connected to what Quine has called his "book on ontology".[2] These documents, I argue, reveal how Quine gradually evolved from a Carnapian into a naturalist philosopher, thereby clarifying both his development and his mature perspective.

Quine's mature naturalism consists of two basic elements: (1) the observation that as inquirers we all start in the middle, assimilating our 'inherited world theory'; and (2) the view that we cannot but work from within this inherited system as we go along, relying on our best theories and methods.[3] Since epistemological and metaphysical questions are traditionally interpreted as 'transcendental' questions (i.e. as questions external to our best theories and methods), the story of Quine's development is partly a story of his evolving views about how we should (re)interpret such questions if we are to be truly working from within. This paper uses the documents related to *Sign and Object* to show how Quine gradually starts to dismiss (his interpretation of) Carnap's solutions to this problem—i.e. developing a 'logic of science' in which metaphysical statements are

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[1] See Floyd (2009). For examples of some pivotal first steps toward the study of Quine's development, see Hylton (2001), Isaac (2005), Ebbs (2011), Frost-Arnold (2011), Sinclair (2012), and Morris (2015).

[2] Quine to Nelson Goodman (December 19, 1944, item 420). Quine also mentions his book project in letters to, among others, Alonzo Church (February 15, 1942, item 570), D. C. Williams (April 7, 1942, item 1221), Morton Wurtele (October 10, 1944, item 1244), B. F. Skinner (February 23, 1945, item 1001), Rudolf Carnap (May 10, 1945), and Paul Buck (November 30, 1945, item 473). In his letter to Carnap, Quine even speculates that the book might become his "*magnum opus*".

[3] For a more extended systematic discussion of Quine's mature naturalism, see Verhaegh (2017c) and Verhaegh (forthcoming-a, Chs. 1–4).

dismissed as quasi-syntactical and in which an analytic–synthetic distinction is used to account for our logical and mathematical knowledge—and to replace them with his mature solution that we can reinterpret traditional epistemological and metaphysical questions as scientific questions.[4]

Thus far, Quine's first philosophical book project has gone completely unnoticed in the literature.[5] In this paper, I aim to contribute to our understanding of the development of Quine's philosophy by reconstructing his position in *Sign and Object* as well as the developments that led Quine to give up on the project in 1946. I argue that although *Sign and Object* was naturalistic in many respects, Quine encountered significant problems in formulating his position, problems which shed new light on Quine's early position, his evolving views about Carnap's philosophy, and the place of "Two Dogmas of Empiricism" in Quine's oeuvre.

This paper is structured as follows. After a sketch of the philosophical background of Quine's book project (Sect. 2), I introduce his method of inquiry in *Sign and Object* and examine a note on "the nature of metaphysical judgments", showing that Quine still defends a mixture of Carnapian and mature views in 1941 (Sects. 3–4). Next, I show that Quine adopts a fully naturalistic metaphysics in 1944 (Sect. 5), but postpones his book project because he fails to come up with satisfying solutions to problems in epistemology and the philosophy of language (Sect. 6). I argue that although "Two Dogmas of Empiricism" is widely considered to be a breakthrough in his thinking, Quine himself was largely dissatisfied with the paper because he felt that he had failed to provide solutions to these problems (Sect. 7). In the final sections, I reconstruct the development of Quine's alternative to Carnap's picture by studying a series of unpublished papers, letters and lectures on epistemology, papers which led Quine to reboot his book project, eventually culminating in *Word and Object* (Sects. 8–9).[6]

2 Philosophical background

Although Quine primarily thought of himself as a logician in the 1930s, philosophy was never far away; while his early publications are outwardly technical, many of them implicitly intend to clarify problems in ontology, semantics, and the philosophy of mathematics. Looking back on his earliest work, Quine argues that even his dissertation was already "philosophical in conception". Actively concerned with the paradoxes in

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[4] In discussing Carnap's philosophy, I will limit myself to *Quine's interpretation* of Carnap as the goal of the present paper is to reconstruct Quine's development. I acknowledge that Quine's reading does not always do justice to the historical Carnap. Indeed, Carnap himself is sometimes interpreted as a naturalist in all but name. See, for example, Ebbs (2017).

[5] The only exception is Murphey (2012), who briefly discusses some of Quine's notes from 1943 and 1944 (pp. 53–55). Murphey's account is unreliable, however, because he only examines a very small fragment of the documents related to *Sign and Object*.

[6] Note on citation and transcription: Unless specified differently, the unpublished documents I refer to in this paper are part of the W. V. Quine Papers, collection MS Am 2587, Houghton Library, Harvard University. In the main text and in the footnotes, I refer to these documents by citing dates (if known) and item numbers. The items' full titles and box numbers are provided in the bibliography. In transcribing Quine's autograph notes, drafts, and letters, I have aimed to minimize editorial interference and chosen not to correct ungrammatical shorthand.

logic and set theory, Quine aimed to transform logic and mathematics as simply and as economically as possible, thereby aspiring "to comprehend the foundations of logic and mathematics and hence of the abstract structure of all science" (Quine 1985, p. 85).[7]

More overtly philosophical was Quine's active concern with the ontological presuppositions of logical frameworks. Not only was he already interested in the relation between logic and ontology in his Warsaw discussions with Stanisław Leśniewski in May 1933,[8] also in one of his very first publications—"Ontological Remarks on the Propositional Calculus"—Quine adopts an explicitly ontological perspective on logical systems, arguing that we ought to eliminate propositions because

> the whole notion of sentences as names is superfluous and figures only as a source of illusory problems. Without altering the theory of deduction internally, we can so reconstrue it as to sweep away such fictive considerations; we have merely to interpret the theory as a formal grammar for the manipulation of sentences, and to abandon the view that sentences are names.[9] (1934c, p. 59)

A few years later, at the 1939 International Congress for the Unity of Science, Quine first presented his criterion of ontological commitment.

A related philosophical development can be distilled from Quine's early work on nominalism. Although Quine claims to have already "felt a nominalist's discontent with classes" in 1933 (1986a, p. 14), his early work on the matter seems to be at least mildly sceptical.[10] This attitude seems to change somewhat, however, when Quine—in the 1940–1941 Harvard Logic Group meetings with Carnap, Tarski, Goodman, and Russell—discusses the prospects of a finitist-nominalist language of science.[11] Although Quine, in one of the meetings, presents a paper in which he argues that he does not "insist on eliminating classes or other unthingly objects" because it "is not clear that the unthingly can be eliminated without losing science" (December 20, 1940, item 2954), he seems to intensify his attempts to "set up a nominalistic language in which all of natural science can be expressed" (1939a, p. 708) in the years immediately

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[7] See Morris (2015) for a discussion.

[8] See (Quine 1985, p. 104): "With Lesniewski I would argue far into the night, trying to convince him that his system of logic did not avoid, as he supposed, the assuming of abstract objects. Ontology was much on my mind". See also Quine's 1933 letter to C. I. Lewis, in which Quine summarizes his academic adventures in Europe as a Sheldon Travel Fellow and mentions that "[s]o far as my more specific interests in logic are concerned, Prof. Lesniewski's work looms largest", continuing the letter with a discussion of the ontological presuppositions of the latter's systems 'Protothetic' and 'Ontology' (1933, item 643, my transcription).

[9] Quine's view here is probably inspired by Carnap's *The Logical Syntax of Language,* a book the German version of which he read when he visited Carnap in Prague in March 1933. I thank an anonymous referee for this suggestion.

[10] In an unpublished 1937 lecture titled "Nominalism", for example, Quine argues that the position is "incompatible with ordinary logic and mathematics" (October 25, 1937, item 2969, my transcription). For a reconstruction, see Mancosu (2008, Sect. 1).

[11] Carnap's notes of these discussions are published and extensively introduced in Frost-Arnold (2013).

following the meetings—attempts that eventually culminate in his joint paper "Steps toward a Constructive Nominalism" (Goodman and Quine 1947).[12]

A final development that seems to have contributed to Quine's increased philosophical aspirations in the early 1940s is his growing discontent with Carnap's views on language and ontology. Where Quine seems to have defended a largely Carnapian perspective on the nature of philosophy in the earliest stages of his career,[13] he grows more sceptical of the latter's views during the second half of the 1930s, as is evinced by his explicit opposition to Carnap during the Harvard Logic Group meetings.[14]

Considering these developments—his first formulation of the criterion of ontological commitment, his increased concern with the status of abstract objects, and his growing discontent with Carnap's philosophical system—it is not surprising that Quine, after finishing his third logical (text)book in 1940,[15] decided to devote a more substantial part of his time to philosophy. Indeed, in a grant application from January 1941, Quine applies for a small sum of money for secretarial assistance in connection with, among others, investigations into "the philosophical presuppositions of science", a proposal that is heavily influenced by the discussions in the Harvard Logic Group. For Quine proposes to investigate

(a) The ontological presuppositions of mathematics and natural science. […] Can science be formulated as not to presuppose universals? (b) The problem of infinity, and its connection (via the Skolem–Löwenheim Theorem) with the problem of universals. (c) The epistemological difference, if any, between mathematics and natural science. (January 9, 1941, item 475)

The earliest evidence of Quine's plan to write his first philosophical *monograph* in connection with these (and other) investigations is from November 1941, when he wrote a four-page untitled book outline.[16]

3 Starting at the middle

Quine's book outline shows that he planned to write a book that is fairly comprehensive in philosophical coverage; the seven chapters he envisions are titled (1) A tentative

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[12] See Gosselin (1990) and Mancosu (2008, Sect. 3) for a discussion.

[13] Indeed, after rereading his "Lectures on Carnap" (1934b) in 1986, Quine writes: "I am startled to see how abjectly I was hawing Carnap's line in my 1934 lectures" (April 10, 1986, item 270). In "Two Dogmas in Retrospect", Quine calls his lectures on Carnap "abjectly sequacious" (1991, p. 391).

[14] In these meetings Quine objected, among others, to Carnap's appeal to the analytic–synthetic distinction as well as to his semantic turn in *Introduction to Semantics*, a manuscript the group used as a basis for discussion. See (Quine 1991, p. 392) and, for a discussion, Mancosu (2005) and Frost-Arnold (2011). Some scholars believe that Quine is also arguing against Carnap's view in "Truth by Convention" (1936), arguably Quine's most influential philosophical contribution in the 1930s. For an alternative interpretation of "Truth by Convention", see Ebbs (2011) and Morris (forthcoming).

[15] I.e. *Elementary Logic* (1941). Quine's first two logical (text)books were *A System of Logistic* (1934a) and *Mathematical Logic* (1940).

[16] The outline is simply titled "Book". A few months later, however, Quine has adopted the title *Sign and Object.* In a letter to his Harvard colleague D. C. Williams, for example, Quine writes that he has "begun to outline" a "little book, *Sign and Object*" (April 7, 1942, item 1221).

ontology, (2) Time and tense, (3) Sign and object, (4) Extensionality, (5) Meaning, (6) The place of epistemology, and (7) Nominalism and empiricism (November 1941, item 3169, my transcription). From a developmental perspective, one of the most interesting parts is Quine's outline of the opening chapter, which begins as follows:

> Starting at the middle: an ontology that may want supplementation *or* diminution. (Concrete) *things* in some sense or other (spatio-temporal regions, or quanta of action, or bundles of quanta of action, etc., for the present left undecided), and all attributes and relations of such things, and all attributes and relations of the thus supplemented totality, and so on.
>
> Just *what* attributes and relations *are* there? Well, common-sense partial answer is that every condition we can formulate (everything of the form of a statement, but with a variable in place of one or more signs of entities) determines an *attribute* of just the entities fulfilling that condition, a *relation* of just the *n*-ads of entities fulfilling that condition. (Roughly: whatever we say about an object attributes an attribute to that object; and so on). This is the *principle of abstraction* (*comprehension*).
>
> [...] But not so fast. Even principle of abstraction untenable! (Paradoxes.) There must be some conditions with no attributes or relations corresponding. A modicum of nominalism is thrust upon us *despite* our having begun with ever so willing a Platonism. (November 1941, item 3169, my transcription)

Although Quine's argument is still rather sketchy, several elements are interesting from a contemporary perspective. First and foremost, it should be noted that Quine uses a largely naturalistic method of inquiry. Like the first section of *Word and Object*, in which he argues that "we all must start in the middle", and literally opens with the "familiar desk" that "manifests its presence by resisting my pressures and by deflecting light to my eyes" (1960, Sect. 1), Quine, in his outline, is also 'starting at the middle'. Moreover, Quine's ideas about what constitutes 'the middle' resemble his later views as well. Just as in *Word and Object*, 'the middle' seems to refer to a mixture of science and common sense. After all, Quine starts with both a scientific ontology ('quanta of action') and with what he himself calls the common-sense view about attributes.[17]

Second, the model of inquiry presupposed in these opening remarks is consistent with his mature view that although we *start* at the middle, we are trying *improve* this system from within. For although Quine seems to want to settle on a nominalistically acceptable ontology,[18] he *justifies* this decision by appealing to the paradoxes he encounters while working from within his common sense idea about attributes and relations. Although Quine is starting at the middle, in other words, he is emphasizing that this starting point 'may want supplementation *or* diminution'.

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[17] The suggestion that Quine was already committed to a gradualist picture concerning the distinction between science and common sense is confirmed by a paper he read 1 year earlier for the Harvard Logic Group. In this lecture, Quine initially distinguishes between a world of "ordinary things" like "tables [and] chairs" and a scientific "super-world" consisting of "electrons [and] atoms", but later concludes that "the dichotomy [...] between science and common sense is surely false" (December 20, 1940, item 2954).

[18] I use the qualifier 'seems' here because it is far from clear what are Quine's actual aims in the later chapters of the projected book. The outline of the seventh chapter of *Sign and Object* ('Nominalism and empiricism'), for instance, is too sketchy to draw any reliable conclusion about Quine's aims.

4 The nature of metaphysical judgments

Despite the apparent continuity between his early and his mature views about the nature of inquiry, however, there is evidence that Quine did not or could not yet completely practice what he preached. In this section, I argue that Quine had not yet completely worked out how to naturalize his ideas about metaphysics.

In 1939, as we have seen, Quine first set out his criterion of ontological commitment in a paper for the Harvard conference on the Unity of Science.[19] Despite Quine's ontological breakthrough, however, his paper is neutral with respect to the traditional questions of metaphysics. After all, it solely deals with the question what entities we are committed to *if* we accept a particular language.[20] It remains an open question what language we are to adopt—a question whose answer depends on one's views about metaphysics.[21]

The details of Quine's early views about metaphysics become clearer when we turn to his 1941 book outline. For, in the outline, Quine also explicitly states his broader, more general, perspective on the nature of metaphysical existence claims. On the very first page, even before the above-discussed sketch of the first chapter, Quine argues that metaphysical statements are factual but that they cannot be evaluated rationally:

> Nature of metaphysical judgments:
> As factual as any; not quasi-syntactical. But can't be criticized in the way other factual judgments can, because they concern the very fdtns. of the conceptual scheme relative to which we criticize other judgments. Bootstraps (Kant).
>
> What *can* be criticized is an *analogue*, viz: A *believes* such & such metaphysical statement. Here we *do* examine A's *language* to decide; insofar, Carnap right. But the analogue is not *equivalent*.
>
> Of course there *is* also met. that is *bad* because of *vagueness*; and to be expected, since, as observed, not subject to control. (November 1941, item 3169, my transcription)

There is much to unpack in this short passage. A first thing that is remarkable from a contemporary perspective is that Quine distinguishes between metaphysical statements (first paragraph) and ontological commitments (second paragraph) and explicitly claims that the two are 'not equivalent'. Where the mature Quine collapses the distinction between ordinary and metaphysical existence claims by arguing that

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[19] A six-page abstract of Quine's conference paper "A Logistical Approach to the Ontological Problem" was to be published in the *Journal of Unified Science* but never appeared due to the German invasion of the Netherlands. Quine did publish part of the paper as "Designation and Existence" in *The Journal of Philosophy* (1939a).

[20] As Quine would put it almost a decade later: "We look to bound variables in connection with ontology not in order to know what there is, but in order to know what a given remark or doctrine, ours or someone else's, *says* there is; and this much is quite properly a problem involving language. But what there is is another question" (1948, pp. 15–16).

[21] That is, the traditional metaphysician might argue that we should adopt a language that can be used to mirror what the world is *really* like, whereas Carnap would answer that we are free to adopt any language we like as long as its rules are clearly specified. The mature Quine, of course, rejects Carnap's distinction between questions of fact and questions of language choice. In the early 1940s, however, Quine had not yet conclusively rejected Carnap's distinction.

we can answer the question whether or not *x*'s actually exist by answering the question whether or not our best scientific theories commit us to *x*'s, here he seems to claim that although questions about ontological commitments can serve as an '*analogue*' of metaphysical judgments, they are not completely alike.[22]

Second, even if we accept Quine's distinction between ontological commitments and metaphysical existence claims, his ideas *about* these metaphysical judgments are remarkable from a contemporary perspective as well; for although Quine holds that metaphysical statements are factual, he also maintains that they cannot be criticized, i.e. that they are 'not subject to control'. Where Quine's distinction between metaphysical and ordinary existence claims in the first and second paragraph still seems to be in Carnapian spirit—corresponding, somewhat anachronistically, to the latter's external and internal questions (1950) respectively—he proposes an important emendation here. He agrees with Carnap that metaphysical judgments cannot be rationally evaluated, but he does not want to succumb to the latter's suggestion that these questions are without cognitive content. Indeed, he implicitly refers to Carnap in claiming that metaphysical existence claims are not 'quasi-syntactical' but 'as factual as any'.[23]

It is my contention that there are two fundamental reasons for Quine's discontent with Carnap's quasi-syntactical approach. First, Quine seems to believe that Carnap's position is too easy—that he is dodging his ontological commitments. Just as Quine in 1932 had tried to convince Leśniewski that "his system of logic did not avoid, as he supposed, the assuming of abstract objects" (TML, 1985a, p. 104), he also felt that Carnap could not avoid being committed to abstract objects, even if he was dismissing metaphysical claims as quasi-syntactical. In his 1937 lecture on "Nominalism", for example, Quine describes Carnap as a 'second-order nominalist' and subtly accuses him of taking the easy way out:

> *Carnap* has been considered a nominalist, though he doesn't incline to the sacrifices of the intuitionist. But he is a nominalist only in a very different sense. A

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[22] One might object that Quine, in considering the 'analogue' question whether or not someone 'believes such & such metaphysical statement', is not really talking about ontological commitments. After all, if one is *committed* to a certain entity by means of Quine's criterion, then one does not necessarily have to *believe* the corresponding metaphysical statement. A nominalist might believe that there are no abstract entities, for example, while being unknowingly committed to such entities because of the sentences she utters. From Quine's behavioristic perspective, however, there is no such distinction: to know what A believes *is* to know what sentences he will be disposed to assent to in appropriate circumstances.

[23] In *The Logical Syntax of Language* (1934), Carnap construes metaphysical statements as quasi-syntactical statements, meaning that although these statements appear to be about extra-linguistic objects, they are in fact about linguistic expressions. Or, as Quine summarized it himself: "in the quasi-syntactic idiom we appear to be talking about certain nonlinguistic objects, when all we *need* be talking about is the sign or signs themselves which are used for denoting those objects" (1934b, p. 98). It is unclear if Quine ever completely accepted Carnap's perspective on metaphysics. The last sentences of his 'abjectly sequacious' 1934 lectures on Carnap, for example, are somewhat ambiguous: "Views will differ as to the success of Carnap's total thesis that all philosophy is syntax. Carnap has made a very strong case for this thesis; but it must be admitted that there are difficulties to be ironed out. […] He has in any case shown conclusively that the bulk of what we relegate to philosophy can be handled rigorously and clearly within syntax. Carnap himself recognizes that this accomplishment stands independently of the thesis that no meaningful metaphysics remains beyond syntax. Whether or not he has really slain the metaphysical wolf, at least he has shown us how to keep him from our door" (1934b, pp. 102–103).

nominalist of second intention: Doesn't nominalize universals, but nominalizes the problem *of* universals.

<div align="center">[…]</div>

Nominalism in its ordinary form has perhaps two purposes: 1st) to avoid metaphysical questions […] 2nd) To provide for reduction of all statements to statements ultimately about tangible things, matters of fact. This by way of keeping our feet on the ground—avoiding empty theorizing. Carnap's 2[n]d-degree nominalism succeeds in the 1st respect […] But it accomplishes nothing in the 2nd respect. (October 25, 1937, item 2969, my transcription)

According to Quine, in other words, Carnap's second-order approach serves as some sort of ontological free pass; it allows us to talk about abstract entities without worrying about our ontological commitments. Or, as he would put it even less sympathetically almost 10 years later:

Logical positivists didn't take Platonistic implications of math. seriously. They were opportunistic: argued against metaphysics as non-empirical because they didn't like it; admitted math. unquestionably because they like it. (ca. 1947, item 3266, my transcription)

The second problem Quine has with Carnap's account concerns the details of the latter's quasi-syntactical treatment of metaphysical existence claims. Quine does not only dismiss *the effects* of the latter's quasi-syntactical approach, he also rejects the very idea that metaphysics ought to be dismissed *as meaningless*. In a 1937 note—titled "A Pragmatic Interpretation of Positivism"— Quine rejects Carnap's appeal to a strict criterion of significance in dismissing metaphysics:

Meaninglessness must be abandoned as meaningless—at least insofar as it might be used against metaphysics. Even supposing we would make sense ultimately of an operational criterion this would rule out all the non-intuitionistic part of math. also.[24] (April 2, 1937, item 3169, my transcription)

Quine, in sum, has two problems with Carnap's perspective on ontology and metaphysics. He believes (1) that Carnap's solution is too easy as it allows us to talk about abstract objects without worrying about ontological commitments; and (2) that we should get rid of the idea that metaphysics is meaningless.

The mature Quine provides a plausible explanation as to why metaphysical judgments are factual instead of quasi-syntactical. For in giving up on the analytic–synthetic distinction and, thereby, the distinction between ordinary and metaphysical existence claims, metaphysical questions are equated with regular queries about ontological commitments, i.e. questions that can only be distinguished from scientific queries in "breadth of categories". Where the natural scientist deals with "wombats and unicorns" and simply assumes a realm of physical objects, the metaphysician/ontologist scrutinizes the question whether we ought to accept "the realm of physical objects itself" (1960, p. 275). This is not the solution Quine adopts in his outline however. After all, Quine's mature position implies that metaphysical judgments *can*

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[24] See also my Verhaegh (2017b).

be criticized: just as we can rationally evaluate the natural scientist's claim that there are no unicorns, we can evaluate the ontologist's claim there are no abstract objects.

The first outline of *Sign and Object*, in other words, still presents a mixture of Carnapian and mature views. Quine argues that metaphysical statements are factual (and not quasi-syntactical), but he still agrees with Carnap that they cannot be criticized, showing that he had not yet completely dismissed Carnap's argument for rejecting metaphysical statements. The result is an apparently inconsistent mixture of ideas about the relation between metaphysics and ontology. For it is unclear how Quine, given his strong empiricist commitments, would have explained that metaphysical claims are factual even if they are not 'subject to control'.

5 The philosopher's task

Between September 1942 and November 1945, Quine served as a full lieutenant (and later as a lieutenant commander) in the Navy. As a result, Quine's research time was severely limited for more than 3 years. In a 1942 letter to Alonzo Church, the main purpose of which was to announce that he was resigning as the consulting editor of the *Journal of Symbolic Logic*, Quine writes that "every bit of time that I can spare from teaching duties must go into war work" and that he has dropped his "research for an indefinite period":

> Before Dec. 7 [the date of the attacks on Pearl Harbor, SV], I was outlining a little philosophico-logical book to be entitled *Sign and Object*. All I can hope to do now is synopsize the main ideas, eventually, in a brief article; and I'm not going to think about this, even, till 6 months or so hence, when teaching and war work have resolved their mutual conflict somehow.[25] (February 15, 1942, item 570)

Despite the fact that Quine had to relegate all his research activities to spare time, there are strong indications that he never stopped working on *Sign and Object* during his Navy years. For the majority of Quine's notes for the book project are from this period.[26]

For our present purposes, one of the most interesting documents is a series of notes from October and November 1944, in which Quine explicitly reflects on the relation between philosophy and science and seems to have resolved his earlier, theoretically awkward, view that metaphysical statements are factual but unchallengeable.[27] Where

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[25] When Quine wrote the letter, he was still combining his war work with teaching. This changed when he reported in Washington for duty on October 7, 1942. See Quine (1985, p. 181).

[26] The first dated note from this period is written on January 30, 1943, the last dated note is written on April 29, 1945.

[27] One of these notes, a second book outline, is titled "Sign and Object; or, The Semantics of Being", showing that Quine wrote these notes with the book project in the back of his mind (October 4, 1944, item 3169, my transcription). Indeed, in a 1944 letter to Mort Wurtele, Quine still writes that he is outlining "a projected book, more philosophical than my past ones, bearing the tentative title "Sign and Object" (October, 10, 1944, item 1244, my transcription).

the above-discussed outline from 1941 at best indicates that Quine's ideas about the nature of inquiry were already fairly naturalistic, these notes leave no doubts about the maturity of his ideas in the early 1940s. For not only does Quine implicitly adopt a "starting at the middle" approach like in his earlier outline, he also explicitly adopts a naturalistic view in answering the question of how we ought to conceive of the relation between science and philosophy.[28] Comparing the philosopher's task with the aims of science and mathematics, Quine writes:

> The philosopher's task differs from that of the natural scientist or mathematician, no less conspicuously than the tasks of these latter two differ from each other. The natural scientist and the mathematician both operate within an antecedently accepted conceptual scheme but their methods differ in this way: the mathematician reaches conclusions by tracing out the implications exclusively of the conceptual scheme itself, whereas the natural scientist gleans supplementary data of what happens around him. The philosopher, finally, unlike these others, focuses his scrutiny on the conceptual scheme itself. (November 5, 1944, item 3181, my transcription)

Quine's perspective on the philosopher's task appears to be well developed. Still, this paragraph could be interpreted as compatible with Quine's 1941 perspective on metaphysics. After all, the idea that the philosopher 'focuses his scrutiny on the conceptual scheme itself', might lead one to suspect that Quine still believes that the philosopher's statements "can't be criticized in the way other factual judgments can" (November 1941, item 3169, my transcription). The next paragraph of the 1944 note, however, rules out this interpretation, thereby showing that Quine had changed his mind:

> It is understandable, then, that the philosopher should seek a transcendental vantage point, outside the world that imprisons natural scientist[s] and mathematician[s]. He would make himself independent of the conceptual scheme which it is his task to study and revise. "Give me που στω [a place to stand, SV]" Archimedes said, "and I will move the world". However there is no such cosmic exile. The philosopher cannot study and revise the fundamental conceptual scheme of science and common sense, without having meanwhile some conceptual scheme, whether the same or another no less in need of philosophical scrutiny, in which to work. The philosopher is in the position rather, as Neurath says, "of a mariner who must rebuild his ship on the open sea". (November 5, 1944, item 3181, my transcription)

The similarity with his mature position is remarkable.[29] Where Quine in his early notes seems to allow factual but unchallengeable metaphysical judgments concerned

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with 'the very fdtns. of the conceptual scheme relative to which we criticize other judgments', he seems to be fully committed to a naturalized metaphysics in 1944.[30]

6 Two problems

Despite these similarities between *Sign and Object* and *Word and Object*, Quine was dissatisfied with the progress he was making. In a 1944 letter to Goodman, written shortly after he had drafted his second, more detailed, outline (October 4, 1944, item 3169), he complains about the book's progress:

> In the matter of logic and philosophy, I'm at more of a standstill than I have been for half a generation. Still dickering with the introduction of a book on ontology.[31] (December 19, 1944, item 420)

It is probably because of this reason that Quine decided to postpone his work on *Sign and Object* in 1946 and to let his philosophical ideas simmer for a few years in his new course on the philosophy of language.[32]

For the purposes of this paper, it is important to see why Quine was dissatisfied with the progress he was making. It is my contention that there are two fundamental reasons as to why Quine struggled to complete *Sign and Object*. First, Quine had yet to develop a comprehensive view about language, meaning, and the nature of logical and mathematical knowledge. Quine had been dissatisfied with Carnap's analytic–synthetic distinction for years, but he had not been able to formulate a satisfying alternative. Although he had succeeded to define analyticity in terms of synonymy in 1943,[33] he really struggled to find a satisfying behavioristic explication of synonymy. Indeed, one of the most detailed notes from Quine's Navy years is a document entitled "Foundations of a Linguistic Theory of Meaning" (August 1943, item 3169), in which

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[30] Indeed, in his second book outline from October 1944, Quine's opening chapter is titled "The Reality of the External World". In this chapter, Quine considers the question of whether "physics might be said to be concerned with exploring the nature of reality". Instead of contemplating the nature of metaphysical judgments, Quine, as we shall see in Sect. 6, worries about challenges that might undercut his materialistic worldview. In the end, Quine dissolves these challenges and settles on a realistic position ("I *am* being a realist") (October 4, 1944, item 3181, my transcription). This changed perspective on metaphysics is present in all notes Quine wrote in 1944.

[31] See also the letters Quine wrote to Charles Morris ("I've made miserably little progress", February 9, 1945, item 741) and B. F. Skinner: "I've been wanting to write a book of philosophical and semantic character, but I don't seem to make any headway now. I'm not in the expansive mood that makes for philosophical creativity" (February 23, 1945, item 1001).

[32] In a project proposal for the Rockefeller Foundation, Quine writes: "I have a considerable sheaf of rough fragments [...] written over recent years with the idea in mind of a book of primarily philosophical and semantical complexion. These things have not yet shaped up into anything organic, but my thought along these lines has led me to offer, for the coming spring, a course in the Philosophy of Language. Accordingly [this project] will consist immediately in the planning of that course; the book is the ulterior purpose" (July 9, 1946, item 921).

[33] See, for example, Quine's letter to Carnap from January 5, 1943: "It is clearer, I think, to shortcut the question of definitions in connection with the relation between the analytic and the logically true, and to speak directly, rather, of the relation of *synonymity* or sameness of meaning. Given this notion, along with that of logical truth, we can explain analyticity as follows: a statement is analytic if it can be turned into a logical truth by putting synonyms for synonyms" (Creath 1990, p. 297).

he examines and dismisses some candidate explications of synonymy. The problem was that even if Quine *would* decide to abandon the whole project of appealing to an analytic–synthetic distinction to account "for the meaningfulness of logical and mathematical truth" (1986b, pp. 206–207), he had "no suggestion of a bright replacement" (1991, p. 393). Indeed, in a 1948 letter to Hugh Miller, Quine sums up his predicament pretty well:

> I am with you in questioning the currently popular boundary between analytic and synthetic. I feel, indeed, that the distinction means virtually nothing, pending the devising of some behavioristic criterion such as no semanticist to date has given us an inkling of. But, for the same reason, I don't know what it would mean to say, with you, that arithmetic is *not* analytic. (May 31, 1948, item 724, my transcription)

A second reason for Quine's dissatisfaction with his philosophical progress is the fact that he had not yet been able to develop a satisfying epistemology. Although he had accepted, as we have seen, a fully realistic materialist ontology in all of his notes, he continuously struggled with the phenomenalist objection that primary sense experiences are 'more real' than tables, chairs, atoms, and electrons:

> There is a sense in which physics might be said to be concerned with explaining the nature of reality. And who contests this? Primarily the Idealist […] The Idealist would take the perceptions etc. rather as the basic reality, and derive things as constructions, logical constructs (Russell). The study of how to make these constructions is Epistemology. And things are composed not of atoms but of perceptions, sense qualia etc. (October 4, 1944, item 3169, my transcription)

Where Quine would later dismiss phenomenalism by arguing that sense data are scientific posits and therefore not in any way more fundamental than, for example, triggerings of sense receptors, he had yet to develop a satisfying response to phenomenalism in the early 1940s.[34]

This 'problem of epistemic priority' is one of the most significant problems Quine grappled with in the 1940s. There are two distinct, though related, explanations for Quine's preoccupation with the problem. First and foremost, Quine's two philosophical heroes, Rudolf Carnap and Bertrand Russell, had both defended a phenomenalist perspective at one point or another. Quine was an admirer of Carnap's *Aufbau* and had heard Russell defend phenomenalism in his 1940 William James lectures "An Inquiry into Meaning and Truth" at Harvard.[35]

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[34] Quine did *try* to answer the phenomenalist's challenge: in some notes Quine argues that he can just ignore the phenomenalistic objection because epistemology is "irrelevant" to his ontological project (March 19, 1944, item 3181, my transcription); in some notes he flirts with a proto-version of his mature position that "[p]erceptions are themselves states of physical objects" (January 30, 1943, item 3169, my transcription); and in "On What There Is", Quine argues that "the obvious counsel is tolerance" such that there are multiple conceptual schemes: e.g. phenomenalistic and physicalistic ones (1948, p. 19). It seems, however, that Quine did not believe these solutions to be satisfactory, as they never reappeared in later papers. For a somewhat different account, see Murphey (2012, pp. 54–55).

[35] It should be noted that Friedman (1987, 1992) and Tennant (1994), among others, have convincingly criticized Quine's interpretation of especially the *Aufbau* (1928). According to Friedman, Carnap's intention

A second explanation for Quine's struggle with epistemological priority is the fact that the issue had been debated in the 1940–1941 Harvard Logic Group meetings.[36] In his notes of one these meetings, Carnap writes: "We have not agreed among ourselves whether it is better to begin with thing-predicates or sense-data-predicates. For the first: I and Tarski; Hempel follows Popper. For the second: Goodman and Quine" (June 18, 1941).[37]

In sum, although Quine had developed a naturalistic picture of inquiry in *Sign and Object*, he started to view the book as "a distant objective" (May 16, 1948, item 921) because he was confronted with two theoretical challenges: (1) he saw no plausible alternative to Carnap's analytic–synthetic distinction, and (2) he had not been able to develop a satisfying epistemology. Indeed, when Quine, in 1946, was asked to suggest topics for a Rockefeller conference on the most urgent questions in philosophy ("the work which philosophy in the United States now has to do"), he replied by listing the problem of 'cognitive meaning' and the problem of 'epistemic priority' as his main concerns:

> Clarification of the notion of cognitive meaning, or of the relation of cognitive synonymy of phrases, is needed in order to make sense of the distinction between analytic and synthetic judgments […] there has been little recognition of the fact that the distinction in its general form is undefined pending a definition of cognitive synonymy. (My own view is that the latter definition should be couched in terms of observable linguistic behavior. I have found no satisfactory formulation).
>
> Clarification of the notion of epistemology priority is needed in order to know what the task of epistemology (as distinct e.g. of psychology) is; for, epistemological priority is the direction in which epistemological reduction of knowledge to more fundamental or immediate knowledge seeks to progress. (October 20, 1946, item 921)

Footnote 35 continued

in the book "is not so much to give a traditional empiricist justification for our knowledge of the external world as to exhibit what Carnap calls the "neutral basis" common to all epistemological views—whether empiricist, transcendental idealist, realist, or subjective idealist" (Friedman 2007, p. 5). Quine's reading of Russell is also not uncontroversial. See, for example, Pincock (2007). Again, I will limit myself to Quine's interpretation of Carnap (and Russell) in this paper. See footnote 4".

[36] There is even some evidence that Quine was already interested in the issue when he was still a student. In one of his graduate papers "Concepts and Working Hypotheses", Quine writes that "no analysis of a given experience can yield any other experience which is, in any full sense, the "bare datum" of the form of experience; any such analysis is, rather, merely a further interpretation" (March 10, 1931, item 3225). I thank an anonymous referee for this suggestion.

[37] See Frost-Arnold (2013, pp. 189–190). Although the issue does not show up before in Carnap's notes, phenomenalism also seems to have been discussed in an earlier meeting. On May 22, 1941, for example, Goodman writes Quine:

> That was a good defense yesterday of the epistemological approach […] It will be interesting to see what happens Monday. Carnap's resistance may have softened a little as a result of being shown that his argument that phenomenal sentences are incomplete presupposes the physicalistic basis he uses it to defend. I hope you are as successful at the department meeting […] as you were in getting phenomenalism another hearing in the group. (May 22, 1941, item 420)

7 Two dogmas

In January 1950, Max Black invited Quine to read a paper for the APA Eastern Division meeting in Toronto with the specific request to survey "what questions and issues remain still to be settled in the light of the programs and achievements of the previous half century's work" (January 17, 1950, item 31). Quine hesitated ("I am not at my best in historical surveys"), but accepted the invitation after Black clarified that the Program Committee was specifically interested in "an analysis of the achievements to date and an evaluation of the questions which remain in need of further investigation" (January 20 and February 6, 1950, item 31).

The paper Quine read in Toronto, "Two Dogmas of Empiricism", was immediately recognized to be of major importance. Within 6 months after the APA meeting, three events were organized to discuss the paper. In February 1950, Chicago's Department of Philosophy organized a debate between Carnap and Quine; in May 1950, there was a symposium on the paper at Stanford; and in the same month The Institute for Unified Science sponsored two sessions with papers on "Two Dogmas" (June 18, 1951, item 1200).[38] Moreover, Quine received dozens of letters with questions, comments, and requests for copies in the year after he first read the paper.[39]

Despite this widespread recognition that he had written an important paper, Quine felt that the massive attention for 'Two Dogmas' was largely undeserved. In response to a letter by Paul Weiss, for example, Quine writes:

> my rather tentative negative strictures on analytic–synthetic have had plenty of attention, disproportionate attention […] I might feel differently if the doctrine concerned were a positive philosophy. But what is it? (a) The observation that the analytic–synthetic distinction has never been adequately def'ned, though all too widely taken for granted. (b) The tentative conjecture that epistemology might develop more fruitfully under some very different sort of conceptualization, which I do not provide. (c) The suggestion that the analytic–synthetic idea is engendered by an untenably reductionistic phenomenalism. (June 18, 1951, item 1200, my transcription)

Quine, in other words, felt that his paper's main contribution was negative and that he had failed to develop a satisfying alternative.[40]

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[38] It should be noted, however, that Carnap and Quine also debated their views on ontology at the Chicago seminar. See Quine (1951b). I thank an anonymous referee for this suggestion.

[39] Quine ran out of reprints of his article, which appeared in *The Philosophical Review* in January 1950, within a few months. Also a reissue of the article in mimeograph form, produced for the Stanford symposium, was exhausted in a year (June 5, 1952, item 1263). Looking back on this period, Quine writes: "It is remarkable that my most contested and anthologized paper was an assignment. The response was quick and startling" (1991, p. 393).

[40] See also Quine's paper "The Present State of Empiricism" (May 26 1951, item 3015, my transcription): "I do not flatter myself that [Two Dogmas] contributes a new idea to philosophy. The paper is negative: an expression of distrust of two doctrines"; and Quine's letter to Joseph T. Clark: "I […] feel much less content at criticism than at construction. This is why the ideas of "Two dogmas", reiterated for years in my course on Philosophy of Language and in private disputation, were so slow in getting into print. Correspondingly I find that particular lecture course a continuing burden; whereas I would feel much enthusiasm for it if I

Whether or not one agrees with his own assessment of 'Two Dogmas', Quine's dissatisfaction with the paper is perhaps less of a surprise if we reconsider the problems that led him to postpone *Sign and Object* in the mid-1940s. Quine's first problem was to find a satisfying alternative to Carnap's analytic–synthetic distinction. Now, although Quine, in 'Two Dogmas', abandons the dogma that "there is a fundamental cleavage between truths which are *analytic* […] and truths which are *synthetic* (1951a, p. 20), the alternative picture he outlines in the famous sixth section of the paper is sketchy at best. Even in the paragraph in which he tries to clarify what he means with "without metaphor", his definition does not seem to satisfy his own strict behavioristic standards of clarity:

> For vividness I have been speaking in terms of varying distances from a sensory periphery. Let me try now to clarify this notion without metaphor. Certain statements […] seem peculiarly germane to sense experience […] Such statements, especially germane to particular experiences, I picture as near the periphery. But in this relation of "germaneness" I envisage nothing more than a loose association reflecting the relative likelihood, in practice, of our choosing one statement rather than another for revision in the event of recalcitrant experience. (1951a, p. 43)

Although we tend to read Quine's mature epistemology (including his ideas about observation sentences, language learning, and the nature of scientific theories) into statements like these, the picture outlined here is still very sketchy. Indeed, in response to a critical letter, Quine admits that "there is […] much more to be said" about notions like "a 'convenient conceptual scheme' and a 'recalcitrant experience', and much that I am not yet able to say" (April 17, 1951, item 231). [41]

The sketchiness of Quine's positive account becomes even clearer if we reconsider the second problem discussed in Sect. 7, i.e. the problem of how to formulate a satisfying response to epistemological phenomenalism. Where the last section of 'Two Dogmas' at the very least contains Quine's first step towards the solution of his problem with the analytic–synthetic distinction, it does not address his problem with phenomenalism at all.[42] If anything, Quine seems to have adopted a phenomenalistic picture of epistemology himself in explicating the experiential boundaries of his metaphorical "man-made fabric" (1951a, p. 42) in terms of "sense data" (ibid., 44).

Quine, in other words, appears to presuppose a holistic variant of epistemological phenomenalism in 'Two Dogmas': there are pure uninterpreted sense data and there is a conceptual scheme which is to account for those raw experiences as simply and

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Footnote 40 continued

were to hit upon a substantial and acceptable constructive theory of knowledge and language" (April 17, 1951, item 231).

[41] Even after Quine had fully developed his mature epistemology in *Word and Object*, he kept dismissing the last section of "Two Dogmas" as "very brief" and "metaphorical", arguing that "it is a waste of time" to further debate the view he had sketched in 1951 (Quine to Schwartzmann, November 21, 1968, item 958).

[42] Quine does mention that he rejects 'reductionistic phenomenalism' in the above-discussed letter to Paul Weiss, but there he is referring to what is called 'radical reductionism' in 'Two Dogmas'; i.e. the idea that all statements are individually reducible to experience. In rejecting 'reductionistic phenomenalism' in "Two Dogmas", in other words, he is rejecting reductionism, not phenomenalism.

as effectively as possible.[43] Quine's picture, in sum, still seems miles away from a naturalized epistemology in which all talk of science-independent sense data is abandoned and replaced with talk about the physical stimulation of sensory receptors. Indeed, in response to questions from Percy Bridgman and Henry Margenau, Quine explains that it is his aim to "give to the conceptual scheme everything *except* the raw confirmatory experiences, & to find the external purpose of the conceptual scheme in those experiences" (May 1951, item 3015, my transcription and emphasis).[44]

8 Language and knowledge

Despite the substantial gap between the phenomenalism in 'Two Dogmas' and his mature naturalized epistemology, Quine solved his epistemological problems only 1 year later. In October 1952, Quine read a paper entitled "The Place of a Theory of Evidence" at Yale. The first half of the lecture discusses the familiar idea that, from an epistemological point of view, both everyday and scientific objects are myths, the function of which is to anticipate "immediate subjective experience" (October 7, 1952, item 3011, p. 15). In the second half of the paper, however, Quine develops a new argument. After concluding that even memories of past sense data do not qualify as epistemically 'pure', such that only *present* sense data are available as an epistemological foundation, Quine argues:

> let us take account of the ridiculousness of our position […] The pursuit of hard data has proved itself, at this point at least, to be self-defeating […] What has been said just now against […] memory applies in some degree to the stream of sensory experience generally […] our selective awareness of present sensory surfaces is a function of […] past conceptualizations. […] it is not an instructive over-simplification but a basic falsification, to represent cognition as a discernment of regularities in an unadulterated stream of experience. Better to conceive of the stream itself as polluted, at each succeeding point of its course, by every prior cognition […] We would do well to recognize that in seeking to isolate sense data we are not plumbing the depths of reality. (October 7, 1952, item 3011, pp. 17–19)

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[43] It should be noted, however, that Quine incorporates his views about epistemology in a pluralistic picture of conceptual schemes. Like in "On What There Is", Quine still believes that the phenomenalistic conceptual scheme is one among many. In a 1951 letter to James B. Conant, for example, Quine writes: "The philosopher who epistemologizes backward to sense data […] is fashioning a conceptual scheme just as the physicist does; but a different one, for a different subject […] He agrees that there are electrons and tables and chairs and other people, and that the electrons and other elementary particles are 'fundamental' in the physical sense […] But sense data are 'fundamental' in the epistemological sense" (April 30, 1951, item 254).

[44] Furthermore, in response to Paul Weiss' explicit question whether experience itself is a posit, Quine answers that epistemologically "everything is a posit except the flux of raw experience" (April 10, 1951, item 1200).

Quine, in other words, argues that sense data cannot provide a science-independent epistemological foundation because they are themselves scientific posits.[45] And he immediately draws the naturalistic conclusion that if there is no epistemological foundation to be had, we can view "epistemology as an empirical science" and replace talk about sense data with talk about "the barrage of physical stimuli to which [a man's] end organs are exposed" (ibid., pp. 23–25).

Quine, in sum, had solved his problem with phenomenalism by recognizing that sense data do not offer an external vantage point, an idea that perfectly matches the general picture of inquiry he had already sketched in his notes for *Sign and Object*. Interestingly, Quine's breakthrough in epistemology also leads him to solve his first problem. After all, his new conception of 'epistemology as an empirical science' provides him with the opportunity to develop an alternative to Carnap's epistemology, i.e. a positive story about scientific, logical and mathematical knowledge that does not rely on an analytic–synthetic distinction. Indeed, only a few months after his Yale lecture, Quine first expresses his mature view that "[w]e can still study the ways of knowing" by studying "the learning of language" and "the acquisition of scientific concepts"; i.e. by studying "the relation of sensory stimulation to the production of scientific hypotheses by people" (April 9, 1953, item 3158).

Having solved both problems that led him to shelve *Sign and Object* in 1946, it is perhaps no surprise that Quine considered breathing new life into his plan to write a philosophical monograph. In March 1952, Quine requests a small grant from the Harvard Foundation For Advanced Study and Research for secretarial assistance for a "book on semantics and theory of knowledge", a book that "has been gradually evolving in connection with the course in Philosophy of Language which I have given several times in the past few years" (March 4, 1952, item 475). Two months later, Quine writes Roman Jakobson—the editor of the M.I.T. Press *Studies in Communication Series*—that he is thinking about a book entitled *Language and Knowledge*: "For years my thought has been evolving in the direction of such a book; and I have looked upon various of my articles, as well as my course on philosophy of language, as steps toward it" (May 18, 1952, item 1488).[46]

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[45] Quine's first publishes (an even stronger version of) this conclusion in "On Mental Entities" (1952, p. 225): "the notion of pure sense datum is a pretty tenuous abstraction, a good deal more conjectural than the notion of an external object". See Verhaegh (2014).

[46] This would not be the last time that Quine changed his working title. Quine settled on the title *Word and Object* fairly late, viz. somewhere between March and May 1959 (item 1488). Besides *Sign and Object* (1941) and *Language and Knowledge* (1952), there is a long list of titles Quine considered, including, among others, *Language and Theory* (June 22, 1955, item 545), *Words and Things* (December 3, 1956, item 205), *Things and Words* (July 15, 1957, item 1423), *Terms and Objects* (November 6, 1958, item 1005), *Words and the World*, *Language and the World*, and *Meaning and Reference* (March 11, 1959, item 1488). Note that *Language and Knowledge* is the only title that contains a distinctively epistemological term, which further indicates that Quine's epistemological breakthrough played an important role in his decision to reboot his book project.

9 Epilogue: *Word and Object*

In the end, it would take Quine seven more years to complete his first philosophical monograph. During these years, he was primarily concerned with the development of his genetic account; his study of "the relation of sensory stimulation to the production of scientific hypotheses by people" (April 9, 1953, item 3158). Where Quine's first published attempt to develop such a genetic account—"The Scope and Language of Science" (1954)—still presents a sketchy story that focuses solely on ostension and internal similarity standards,[47] *Word and Object* provides a detailed and complex account involving stimulus meanings, prelinguistic quality spaces, phonetic norms, discrimination thresholds, degrees of observationality, and observation sentences.[48]

Burton Dreben, without doubt Quine's closest philosophical companion, has aptly described *Word and Object* as "the mirror-image of Carnap's philosophy"—as the book that "shows how Carnap is transformed once his most basic assumption is dropped, namely the fundamental distinction between philosophy and science, between the analytic and the synthetic" (1990, p. 88). In this paper, I have aimed to contribute to our understanding of the evolution of Quine's thought between 1940, when he first set out to write a philosophical monograph, and the early 1950s, when he first felt ready to complete this project. *Sign and Object,* I have argued, sheds new light on the evolution of Quine's ideas. The notes, letters, and manuscripts related to the project reveal that although Quine's views were already surprisingly naturalistic in the early 1940s, two problems prevented him from developing a comprehensively naturalistic view on philosophical inquiry, problems he could only resolve in the early 1950s. Moreover, *Sign and Object* shows that Quine's development should not only be understood in terms of his struggle with Carnap's views about analyticity, eventually culminating in "Two Dogmas of Empiricism". Both Carnap's views on metaphysics and (Quine's interpretation of) his views on epistemic priority have played a very substantial role in Quine's development as well. *Word and Object* is one of the most influential works in the history of analytic philosophy because it offers a novel and comprehensively naturalistic perspective on language, metaphysics and epistemology. *Sign and Object* unearths the steps Quine had to take in developing this perspective.

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[47] In his autobiography, Quine writes that "The Scope and Language of Science" functioned "as a prospectus for [...] *Word and Object*" (Quine 1985, p. 258).

[48] For an account of Quine's development after the mid-1950s, see my Verhaegh (forthcoming-b).

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