CARNAP’S NONCOGNITIVISM ABOUT ONTOLOGY

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Abstract

Do numbers exist? Carnap (1956 [1950]) famously argues that this question can be understood in an “internal” and in an “external” sense, and calls “external” questions “non-cognitive”. Carnap also says that external questions are raised “only by philosophers” (p. 207), which means that, in his view, philosophers raise “non-cognitive” questions. However, it is not clear how the internal/external distinction and Carnap’s related views about philosophy should be understood. This paper provides a new interpretation. I draw attention to Carnap’s distinction between purely external statements, which are independent from all frameworks, and pragmatic external statements, which concern which framework one should adopt, and argue that the latter express noncognitive mental states. Specifically, I argue that “frameworks” are systems of rules for the assessment of statements, which are utterances of ordinary language sentences. Pragmatic external statements express noncognitive dispositions to follow only certain rules of assessment. For instance, “numbers exist” understood as a pragmatic external statement expresses a noncognitive disposition to use only rules of assessment according to which numbers do exist. Carnap can thereby be understood as proposing a distinctive form of noncognitivism about ontology that is in some respects analogous to norm-expressivism in metaethics.

1 Introduction

Do numbers exist? Platonists (such as Maddy (1990)) think they do, while nominalists (such as Field (1980)) think they don’t. Carnap, in his article “Empiricism, Semantics and Ontology” (1956 [1950]), famously argues that platonists and nominalists debate a misguided question.¹ He argues that the question of whether numbers exist can be understood in two different ways. First, it can be understood as a question that is internal

¹Carnap published a first version of “Empiricism, Semantics and Ontology” in 1950 (in the Revue Internationale de Philosophie), and a revised version in 1953 (in Readings in Philosophy of Science, ed. by Philip P. Wiener, New York: Charles Scribner’s Sons). The second edition of Carnap’s
to the “framework” of mathematics. When understood in this way, its answer is “yes”, and this answer can moreover be trivially read off the “rules of the framework” and is therefore analytic (p. 209). Philosophers presumably don’t mean to debate this trivial question. Alternatively, philosophers could be asking whether numbers exist in an “external” sense of this question, where what is at stake is the existence of numbers in a framework-independent sense (p. 209). But, Carnap argues, this external question would be “non-cognitive” (p. 210) and, again, presumably not what philosophers mean to debate.

These remarks raise many questions. What are “frameworks”? What is the difference between “internal” and “external” questions? Why should internal questions, as Carnap says (p. 206), in general have answers that are either analytic or empirical? And why should external questions be “non-cognitive”? It is not clear how these questions should be answered, and therefore unclear how Carnap’s metaphilosophy should be understood. This paper provides a new account.

Carnap is often understood as simply dismissing all of “metaphysics” as “meaningless”. This view may seem well supported by textual evidence, since Carnap says that “external questions” are “pseudo-questions” (p. 219) and also says that external questions are raised “only by philosophers” (p. 207), suggesting that philosophers do not raise real questions. However, closer analysis of the text indicates that Carnap distinguishes

Meaning and Necessity (1956 [1947]) includes a reprint of the 1953 article. All references in this article are to the revised 1953 version.

2Carnap says that the question of whether numbers exist understood in the external sense would be a question “prior to the acceptance of the new framework” (p. 209).

3I put both ‘metaphysics’ and ‘meaningless’ in double quotes since it is not quite clear what Carnap and his commentators mean by these words, and whether they all mean the same.

4For instance, Price (2009) presents Carnap as leading a “battle” against metaphysics, and says that “Carnap thought that much of traditional metaphysics and ontology rests on a mistake”, since “the metaphysical questions typically asked by philosophers [...] are simply mistakes: ‘They cannot be asked because they are framed in the wrong way’” (p. 323). As a second example, Eklund (2013, p. 231) says that “it is undeniable that Carnap’s view on ontology is somehow skeptical or deflationary: in some sense or other, the questions which philosophers concerned with ontology have been concerned with are non-questions.”
between two sorts of external statements. I will call these purely external and pragmatic external statements (see §3). Purely external statements are independent from all frameworks, and pragmatic external statements concern which framework one should adopt. While purely external statements are defective, for reasons to be explained, I will argue that pragmatic external statements nevertheless have a distinctive kind of meaning: they express noncognitive attitudes. Carnap should therefore not be understood as simply dismissing all of “metaphysics” as “meaningless”, but rather as proposing a distinctive kind of noncognitivism about ontology.\(^5\)

At the core of my noncognitivist interpretation is a view about the nature of Carnapian “frameworks”. Carnap thinks that speakers assess statements, which are utterances of ordinary language sentences, guided by rules.\(^6\) I argue that “frameworks” are systems of rules for the assessment of statements, and include syntactic rules, semantic rules, and rules for the evaluation of empirical evidence. The acceptance of a framework, in this view, amounts to a disposition to follow particular rules of assessment. Pragmatic external statements, which concern which framework one ought to accept, express such dispositions. For instance, “numbers exist” understood as a pragmatic external statement expresses a disposition to use only rules of assessment according to which numbers do exist. This Carnapian noncognitivism about ontology can be compared with norm-expressivist views in meta-ethics. Norm-expressivists (such as Gibbard (2003)) think that “murder is wrong” expresses the acceptance of a norm that prohibits murder. As I explain in §6, norm-acceptance, in this view, effectively is a disposition to assess normative statements in a particular way. Norm-acceptance, just like the acceptance of a framework, can

\(^5\)Kraut (2016) also proposes a noncognitivist interpretation, and argues—as I will—that a noncognitivist interpretation is required for explaining how Carnap tried to reconcile empiricism with the acceptance of abstract entities. While I agree with Kraut on these important points, the details of our accounts differ, however. For example, according to Kraut, ontological statements express a commitment to the “explanatory utility of discursive resources” (p. 40), while explanatory utility plays no role in my account. I also have somewhat different aims than Kraut (2016), and make progress on several questions not systematically addressed by that paper.

\(^6\)See §4 for a discussion of the textual evidence.
therefore be understood as a disposition to follow particular rules of assessment.

My discussion will be structured as follows. In the initial expository sections, I provide essential background for reading “Empiricism, Semantics and Ontology” (§2), and draw attention to Carnap’s distinction between purely and pragmatic external statements (§3). I then go on to develop my specific noncognitivist interpretation. I first explain what Carnapian frameworks are (§4), go on to explain why internal statements are either empirical or analytic (§5), and then explain why external statements are noncognitive (§6). I conclude by contrasting my account with alternative interpretations (§7) and argue against popular so-called language pluralist accounts (§8).

2 Essential Background

Carnap (1956 [1950]) introduces the internal/external distinction in response to criticisms of the semantic theory presented in Meaning and Necessity (1956 [1947]). Most details of this theory do not matter for present purposes. The important point is that Carnap distinguishes between the extensions and intensions of linguistic expressions, and glosses the intension of a predicate as a property (p. 125), which is an abstract object. Several of Carnap’s contemporaries argued against the acceptance of abstract entities, including properties. Goodman and Quine (1947, p. 105) in particular declare that “[w]e do not believe in abstract entities”. Quine’s refusal to accept abstract entities manifests itself

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7 §10 of “Meaning and Necessity” constitutes a clear precursor to “Empiricism, Semantics and Ontology”. For instance, Carnap (1956 [1947], p. 43) says that “the concept of existence here has nothing to do with the ontological concept of existence or reality.”

8 As a second example, Ryle (1949, p. 69), writes in his review of Meaning and Necessity: Carnap “now makes alarming requisitions upon philosophy’s stock of extra-linguistic entities. Indeed, he seems to need at least as many as Meinong needed, and for almost the same bad reasons.”

9 Goodman’s and Quine’s main reason for refusing to accept abstract entities is “a philosophical intuition that cannot be justified by appeal to anything more ultimate” (p. 105). They also mention concerns about property abstraction principles, since “the most natural principle for abstracting classes or properties leads to paradoxes”. Goodman and Quine presumably mean unrestricted comprehension, and point to the fact that it gives rise to Russell’s paradox.

10 Carnap was surely aware of Quine’s nominalist program and the implications with respect
in the rejection of higher-order quantification. He argues that one commits oneself to the existence of $Fs$ iff one accepts that some $x$ is $F$, i.e. iff one accepts that at least one $F$ is the value of some bound variable (Quine, 1953 [1948]). The point of this criterion is to show that accepting a sentence such as ‘Something is a white dog’ does not commit one to the existence of properties such as *whiteness* or *doghood*, but only to the existence of some value of the variable $x$ that is white and a dog. Given this criterion, Quine avoids being committed to the existence of properties by rejecting higher-order quantification. But Carnap makes use of higher-order quantification, both in *The Logical Syntax of Language* (1937 [1934], pp. 84–85) and in *Meaning and Necessity* (1956 [1947], p. 45), and by Quine’s standards is therefore committed to the existence of properties.

“Empiricism, Semantics and Ontology” provides a response to precisely this point. Carnap agrees with Quine’s view on how one incurs ontological commitments (fn. 3, p. 214), but argues that his commitment to abstract entities is unproblematic (p. 206). Carnap’s argument to this effect focuses on a potential conflict with empiricist principles. The nature of this conflict is clear, at least in rough outline: empiricism says that all knowledge ultimately reduces to empirical knowledge, but we do not experience abstract object, which suggests that empiricism is incompatible with accepting that abstract objects exist. But Carnap argues that the acceptance of abstract entities is “perfectly compatible with empiricism and strictly scientific thinking”, and goes on (p. 205):

> “the special issue of the role of abstract entities in semantics will be discussed. It is hoped that the clarification of the issue will be useful to those who would like to accept abstract entities in their work in mathematics, physics, semantics or any other field; it may help them to overcome nominalistic scruples”.

Carnap here clearly and explicitly states as his goal the reconciliation of empiricism with the acceptance of abstract entities.

to Carnap’s semantic method, since he had spent the academic year 1939/1940 with Quine and Tarski at Harvard, where they jointly attended a discussion group that focused extensively on nominalism. See Frost-Arnold (2013) and Goodman and Quine (1947, fn. 12).

11See, for instance, the direct reference to Quine in fn. 5, p. 215.
Carnap’s reply to Quine rests on a subtle distinction between a good and a bad kind of ontological commitment. He distinguishes between “embracing a Platonic ontology” and merely “accepting abstract entities” (p. 205), and states as part of his goal to explain why the “acceptance of a language referring to abstract entities [...] does not imply embracing a Platonic ontology”. The mere acceptance of abstract entities, in contrast, is “perfectly compatible with empiricism and strictly scientific thinking” (p. 205). This distinction raises questions. What is the difference between problematically “embracing a Platonic ontology” and unproblematically “accepting abstract entities”? The distinction between “external” and “internal” claims is a central component of Carnap’s answer to this question. Carnap effectively argues that his acceptance of abstract entities amounts to making an unproblematic “internal” claim, which is not the same as “embracing a Platonic ontology”. Someone who embraces a Platonic ontology makes a problematic “external” statement. Understanding how Carnap attempted to reconcile empiricism with the acceptance of abstract entities therefore requires understanding his distinction between “internal” and “external” statements.

3 Purely External vs. Pragmatic External Statements

The main difference between internal and external statements is that internal statements are supposed to be either empirical or analytic (p. 206), while external statements are “non-cognitive” (p. 210). However, it is important for the proper understanding of Carnap’s view that he distinguishes between two different kinds of external statements. He says that “those who raise the question of the reality of the thing world itself have perhaps in mind not a theoretical question as their formulation suggests, but rather a practical question, a matter of a practical decision concerning the structure of our language” (p. 207). To illustrate, consider the following utterance:

(1) “There are propositions.”
Carnap’s reference to practical questions suggests that there are three ways of understanding this statement: as an internal, as a purely external and as a pragmatic external statement. Internal statements are internal to a framework, purely external statements are independent from all frameworks, and pragmatic external statements concern which framework one ought to accept.

The distinction between purely external and pragmatic external claims is important. Carnap characterizes his opponent as somebody who thinks that one needs to show that numbers exist before one accepts a framework that refers to numbers. In contrast to this opponent, Carnap thinks that only pragmatic questions are relevant for deciding whether to accept a particular framework (see p. 214). The difference is that Carnap’s opponent, as characterized by Carnap, raises a purely external question, while Carnap takes only pragmatic external questions into consideration.

What determines whether a given utterance of a particular sentence expresses an internal, a purely external or a pragmatic external claim? Carnap (p. 219) suggests that the context of utterance plays an important role:

“I feel compelled to regard the external question as a pseudo-question, until both parties to the controversy offer a common interpretation of the question as a cognitive question; this would involve an indication of possible evidence regarded as relevant by both sides involved.”

Carnap here implies that a statement such as (1) expresses an internal claim only in a context in which the speakers agree on which “possible evidence” they regard as relevant. Generalizing from this remark, we can say that a statement expresses an internal claim in a context in which the speakers agree on the rules for its assessment. However, in a context in which there is no such agreement, (1) expresses a purely external claim. Furthermore, in contexts where the question under discussion is which framework one ought to accept, (1) expresses a pragmatic external claim.12

12I assume throughout that an internal question can be modeled as a set of internal claims, while an external question can be modeled as a set of external claim. That is, an internal question is
Why should external statements be “non-cognitive”? Carnap offers only a rough characterization of the notion of cognitive meaning, by means of various concepts that he uses interchangeably. A statement is “cognitively meaningful”, according to this characterization, if it “refers to” or “designates” something and is “informative” (Carnap, 1956 [1950], p. 6). Noncognitive statements do not express propositions and are neither true nor false (Carnap, 1963, p. 45). It is clear why internal claims are cognitive according to this characterization: internal claims are internal to a framework and, as I will explain in §4, frameworks include rules of designation that determine what given expressions designate. Furthermore, purely external claims are not associated with a determinate framework, and, accordingly, it is indeterminate what they designate. This is why purely external claims are “non-cognitive”. But why should pragmatic external questions be “non-cognitive”? The key claim I want to establish in this paper is that pragmatic external statements serve an expressive rather than a descriptive function, since they are the expressions of noncognitive attitudes.

I will develop and defend this interpretation in much more detail below. It may however be instructive to first look at some direct textual evidence in favor of my view. Carnap says the following in his popular introduction to *The Logical Syntax of Language* (1935), under the heading “Metaphysics as Expression”:

“Someone may object: these propositions in the metaphysical books obviously have an effect upon the reader, and sometimes a very strong effect; therefore they certainly express something. That is quite true, they do express something, but nevertheless they have no sense, no theoretical content.

We have here to distinguish two functions of language, which we may call the expressive function and the representative function. Almost all the conscious and unconscious movements of a person, including his linguistic utterances, express something of his feelings, his present mood, his temporary or permanent dispositions to reaction, and the like. Therefore we may take almost all his movements and words as symptoms from which we can infer something...
about his feelings or his character. That is the expressive function of movements and words. But besides that, a certain portion of linguistic utterances (e.g., ‘this book is black’), as distinguished from other linguistic utterances and movements, has a second function: these utterances represent a certain state of affairs; they tell us that something is so and so; they assert something, they predicate something, they judge something.” (pp. 27–28)

Carnap here distinguishes between a descriptive and an expressive use of language and says that metaphysical statements serve an expressive function. He goes on:

“The meaning of our anti-metaphysical thesis may now be more clearly explained. This thesis asserts that metaphysical propositions—like lyrical verses—have only an expressive function, but no representative function. Metaphysical propositions are neither true nor false, because they assert nothing, they contain neither knowledge nor error, they lie completely outside the field of knowledge, of theory, outside the discussion of truth or falsehood. But they are, like laughing, lyrics, and music, expressive. They express not so much temporary feelings as permanent emotional or volitional dispositions. Thus, for instance, a Metaphysical system of Monism may be an expression of an even and harmonious mode of life, a Dualistic system may be an expression of the emotional state of someone who takes life as an eternal struggle; an ethical system of Rigorism may be expressive of a strong sense of duty or perhaps of a desire to rule severely.” (pp. 29–30)

Carnap here clarifies that metaphysical statements express “volitional dispositions”. My main target in this paper is Carnap’s (1956 [1950]) article “Empiricism, Semantics and Ontology”, which he wrote 15 years after these passages. According to my noncognitivist interpretation of this article, Carnap’s further refined his noncognitivism between 1935 and 1950. I will argue that metaphysical statements, understood as pragmatic external statements, express noncognitive dispositions to follow particular rules of assessment.

This conception of Carnap’s metaontology is importantly different from currently common conceptions. A very widespread view is that, by “metaphysics”, Carnap means a certain historically given academic discipline, that is spatio-temporally distinguished by the people who have engaged in it, the articles and books they have written and the conferences they have held. Carnap is then commonly understood as saying that the members
of this discipline are engaged in a pointless pursuit. For example, Hirsch (2011) proposes a neo-Carnapian view according to which, in at least some cases, metaphysicians of seemingly conflicting viewpoints merely speak different languages, and hence do not necessarily contradict each other.\footnote{Hirsch (2011) mentions the debate about mereological composition as one example.} As a second example, Thomasson (2015) argues that all meaningful existence questions are “internal” questions and can be answered “easily”, by merely using ordinary conceptual skills, perhaps together with some empirical investigation and/or pragmatic decision. Philosophers who try to raise non-trivial existence questions make a non-standard use of certain terms and accordingly do not properly use but merely mention these terms.

In contrast to these received views, I think that Carnap should not be understood as simply dismissing all of “metaphysics” as pointless, but rather as proposing a distinctive kind of noncognitivism about ontology.\footnote{I here agree with Kraut (2016).} Specifically, debates concerning pragmatic external statements, which express noncognitive dispositions to follow particular rules of assessment, are not necessarily pointless or misguided. Metaethical norm-expressivists often say that ethical debates serve the purpose of coordinating various speakers on accepting the same norms, despite the fact that normative sentences have no factual content. Given Carnap’s noncognitivism about ontology, ontological debates can similarly be pictured as serving the purpose of coordinating various speakers on following the same rules of assessment, even if ontological statements have no factual content. Coordination, in either case, need not be an end in itself. Norm-expressivists may say that agents who aim at minimizing suffering have reason to coordinate with other agents on norms that minimize suffering. Carnapian noncognitivists may similarly say that a scientist has reason to coordinate with other scientists on a framework that is best suited for science.
4 What are “Frameworks”?

At the heart of my interpretation is a new proposal for what Carnapian “frameworks” are. Carnap holds that speakers accept or reject statements guided by rules that they use in the assessment. He says that the evaluation of statements is “usually carried out [...] as a matter of habit rather than a deliberate procedure. But it is possible, in a rational reconstruction, to lay down explicit rules for the evaluations” (Carnap, 1956 [1950], p. 207). Frameworks, I argue, are systems of rules that speakers use in the assessment of given statements, which are utterances of ordinary language sentences. These rules include syntactic rules, semantic rules, and rules for the evaluation of empirical evidence.\(^\text{15}\)

As Carnap describes the process above, the rules speakers actually use usually are only implicit and imprecise. However, it is possible to define formal systems that explicate the rules that speakers use in the assessment of given statements. The notion of explication that is relevant here is a technical term due to Carnap. To explicate a condition means to replace a vague condition that is already in use by an explicit and precise one (see Carnap, 1956 [1947], p. 7). Such formal systems are idealized “frameworks” and Carnap also often calls them “frameworks”.\(^\text{16}\)

Formal systems that explicate rules for the assessment of given statements are important to Carnap for the following reason. Throughout his career, Carnap was frustrated with debates that he perceived as pointless. For example, in his intellectual autobiography, he says the following, with reference to “metaphysical” disputes:

“I was depressed by the disputations in which the opponents talked at cross purposes; there seemed hardly any chance of mutual understanding, let alone of agreement, because there was not even a common criterion for deciding the controversy.” (Carnap, 1963, p. 45)

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\(^{15}\)Carnap says that observation yields “results”, which are “evaluated according to certain rules as confirming or disconfirming evidence for possible answers” (to a question) (p. 207).

\(^{16}\)I discuss an example in §6.
ing tools that speakers can use in order to explicate the rules that they use to assess given statements.\textsuperscript{17,18}

One example of a formal system that explicates a framework is the formal system $S_1$, which Carnap defines in *Meaning and Necessity* (1956 [1947]). The syntactic apparatus of $S_1$ contains logical constants\textsuperscript{19}, individual variables, quantifiers\textsuperscript{20}, an iota-operator for forming individual descriptions and a lambda operator for forming predicates. $S_1$ moreover contains a small set of individual and predicate constants, which I list below. The system $S_1$ is specified by means of four sets of rules (see p. 5). Carnap first assumes standard rules of sentence formation without further specification.\textsuperscript{21} Carnap then explicitly defines rules of designation, rules of truth, and rules of ranges.\textsuperscript{22} I’ll comment on the rules of designation and the rules of truth in more detail.

The rules of designation fall into two groups, as follows:

*Rules of designation for individual constants*

- ‘$s$’ is a symbolic translation of ‘Walter Scott’.
- ‘$w$’ is a symbolic translation of ‘(the book) Waverley’.

*Rules of designation for predicates*

\textsuperscript{17}Here is a second example, from the foreword to *The Logical Syntax of Language* (1937 [1934], pp. xiv–xv): “Up to the present, there has been only a very slight deviation, in a few points here and there, from the form of language developed by Russell which has already become classical. [...] The fact that no attempts have been made to venture still further from the classical forms is perhaps due to the widely held opinion that any such deviation must be justified—that is, that the new language-form must be proved to be ‘correct’ and to constitute a faithful rendering of ‘the true logic’. To eliminate this standpoint, together with the pseudo-problems and wearisome controversies which arise as a result of it, is one of the chief tasks of this book.”

\textsuperscript{18}This view on Carnap’s basic ambitions is perhaps not universally accepted, but also not uncommon, and endorsed by (for instance) Ebbs (2011, p. 6), Hylton (1982) and Ricketts (1982).

\textsuperscript{19}Specifically, a negation sign, sign for disjunctions and conjunctions, a conditional and a biconditional (‘$\neg$’, ‘$\lor$’, ‘$\land$’, ‘$\subset$’, ‘$\equiv$’).

\textsuperscript{20}All sentences in $S_1$ are closed.

\textsuperscript{21}So, there is supposed to be a certain set of atomic sentences, and all expressions formed from atomic sentences using the aforementioned syntactic apparatus and obeying certain syntactic restrictions again are sentences.

\textsuperscript{22}Carnap intends the rules he explicitly states as examples, that provide a sketch rather than a full development of $S_1$. 
• ‘$Hx$’ is a symbolic translation of ‘$x$ is human’
• ‘$RAx$’ is a symbolic translation of ‘$x$ is a rational animal’
• ‘$Fx$’ is a symbolic translation of ‘$x$ is (naturally) featherless’
• ‘$Bx$’ is a symbolic translation of ‘$x$ is a biped’
• ‘$Axy$’ is a symbolic translation of ‘$x$ is the author of $y$’

These rules implicitly define the individual and predicate constants of $S_1$, and then correlate these constants with constants in a fragment of ordinary English.

It is interesting that the rules of designation do not make use of classically semantic vocabulary, such as ‘refers’ or ‘designates’. Indications for how the rules of designation ought to be understood can be found in “Meaning and Synonymy in Natural Language” (Carnap, 1956 [1955], p. 237), where Carnap is concerned with presenting a method for assigning intensions to predicates. The intension of a term is “the general condition that an object must fulfill” in order to fall in its extension (p. 234). Carnap says that such an intension may be assigned to a predicate by an entry in a dictionary, such as the following:

- Pferd, horse

This entry supposedly assigns an intension to the predicate ‘Pferd’, by stating that to fall under this predicate an object must satisfy the condition of being a horse.²³ For present purposes, the important point is that an intension may be assigned to a predicate by declaring it to be synonymous with another, previously understood predicate. Carnap’s designation rules similarly declare that certain expressions in the language of $S_1$ are “symbolic translations” of ordinary English expressions. Carnap’s designation rules can hence be understood as assigning intensions to symbolic expressions in $S_1$. For example the following rule:

- ‘$Hx$’ is a symbolic translation of ‘$x$ is human’

²³Carnap does not carefully distinguish between the use and mention of a predicate. For example, later in the article he speaks of properties that are “essential or definitory” for a “substance”, rather than of the conditions a thing must fulfill to fall within the extension of a predicate, but apparently means the very same thing.
can be understood as stipulating that, in order to fall in the extension of the predicate constant ‘$H$’, an object must satisfy the condition of being human.

The rules of truth are instances of Tarski’s T-schema. A Tarskian truth-definition is given in a meta-language for some object-language and presupposes a translation of the object-language into the meta-language. This translation is accomplished by the rules of designation. The rules of truth then assign truth-values first to atomic and then to complex sentences, in a to-be-expected manner. Carnap defines that ‘$Bs$’ is true iff Scott has the property of being a biped. More generally, an atomic sentence that conjoins a predicate constant with an individual constant is true if and only if the individual to which the individual constant refers possesses the property to which the predicate constant refers (p. 5). The truth-value of a complex sentence then is a function of the truth-values of its component sentences.\footnote{To complete the presentation of $S_1$: the rules of ranges rest on a preliminary definition of a state-description. A state-description is a class of sentences that contains for every atomic sentence either this sentence or its negation. The rules of ranges determine for every sentence whether it holds in a given state-description. The following five rules apply (p. 9):

1. An atomic sentence holds in a given state description iff it belongs to it.
2. \(\neg S_i\) holds in a given state-description iff $S_i$ does not hold in it.
3. $S_i \lor S_j$ holds in a given state-description iff either $S_i$ or $S_j$ holds in it, or both.
4. $S_i \equiv S_j$ holds in a given state-description iff either both $S_i$ and $S_j$ or neither of them hold in it.
5. A universal sentence (e.g., ‘$(x)(Px)$’) holds in a state-description iff all substitution instances of its scope (‘$Pa’’, ‘$Pb’’, ‘$Pc’’, etc.) hold.

A state-description thus gives a complete description of a possible state of the universe of individuals with respect to all properties and relations expressed by predicates of $S_1$.}
language must be given in a distinct meta-language with greater expressive power to avoid paradox. But ordinary English is “universal” in a way that does not allow for a meta-language with greater expressive power.  

5 Why are Internal Statements Empirical or Analytic?

Why should internal claims be unproblematic? Carnap’s main idea is that internal claims are either empirical or analytic (p. 206), and in neither case is there a conflict with empiricism. Here are two examples to illustrate this idea:

(A) It is analytic in the framework for numbers that there are prime numbers (and hence that numbers exist) (p. 209). But if it is analytic that numbers exist, then the claim that they exist, understood as an internal claim, need not be confirmed empirically.

(B) The existence of color properties, such as *being red*, can be confirmed empirically in the framework for thing properties (p. 212). But accepting that properties exist does not conflict with empiricism if their existence can be confirmed empirically.

I will discuss both examples in turn, with a focus on the first example (A).

The idea that analytic sentences do not need to be confirmed empirically goes back to Wittgenstein’s *Tractatus* (1974 [1921], 4.46), according to which tautologies (and contradictions) are not genuine propositions, since they are true under *any (or no)* distribution of truth-values over atomic propositions. Carnap (1963, p. 47) comments on this theory as follows: “What was important in [Wittgenstein’s] conception from our point of view was the fact that it becomes possible for the first time to combine the basic tenet of empiricism with a satisfactory explanation of the nature of logic and mathematics.” The key idea is that, since tautologies are not genuine propositions, they do not stand in need of empirical justification. Carnap (1963, p. 64) therefore feels warranted “[i]n asserting the thesis of

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25 As evidence for Tarski’s influence on Carnap, see for instance the introduction to *Introduction to Semantics* (Carnap, 1956 [1950]).

26 See also Carnap (2004 [1930], p. 76).
empiricism only for factual truths”. However, Carnap gives an original spin to Wittgenstein’s idea, and and in the place of “tautologies” he speaks of “analytic sentences”.

Analyticity, for Carnap, is a framework relative notion. A sentence is “analytic” in a framework if it is entailed by the rules of the framework. For example, the answer to the question “Is there a prime number greater than a hundred?” is analytic according to the rules of the framework for the system of numbers (p. 209). Carnap’s key idea for reconciling empiricism with the acceptance of abstract entities is that a sentence which is entailed by the rules of a framework need not be confirmed empirically in that framework. It is important that what is entailed here is not merely a string of symbols but a meaningful sentence. If the sentence ‘there are numbers’ is analytic in the number framework, and assuming that ‘there are numbers’ means that there are numbers, then it is analytic in this framework in a derivative sense that there are numbers. Carnap would conclude that the existence of numbers need not be confirmed empirically, and that accepting that numbers exist does not conflict with empiricism.

The reason why it is analytic in the number framework that there are numbers is as follows. The framework for numbers contains numerical constants, such as ‘five’, numerical variables such that numerical constants are substitutable for these variables, and a general term ‘number’, which is defined as ‘\( m = m \)’, for any numerical variable \( m \) (Carnap, 1956 [1947], p. 44).\(^{27}\) That numbers exist can in this framework be shown thus:

1. For all \( m \), \( m = m \).

2. five=five, since ‘five’ is substitutable for ‘\( m \)’.

3. Five is a number, given the definition of ‘number’.

4. There is a number.

\(^{27}\)Carnap (1956 [1950], p. 210) similarly suggests that “\( p \) is a proposition” may be defined as “\( p \) or not \( p \)”.
The first step in this argument is a rule of the number framework. Step 4 follows from the rule of universal generalization, which is also part of the framework. The rules of the number framework hence entail the sentence ‘there is a number’, which is why it is analytic in this framework.\footnote{The explanations in this paragraph and the next are due to Ebbs (2017).}

Carnap’s opponent (as characterized by Carnap) is somebody who believes that one must show that numbers exist before one accepts a framework that refers to numbers. More specifically, the number framework includes rules of designation that introduce numerical constants, such as the following:

(a) ‘Five’ designates a number.

Carnap characterizes his opponent as somebody who thinks that one needs to show that numbers exist before one accepts (a). But Carnap argues that (a) is analytic (p. 217). As Ebbs (2017) points out, the reason is that the following two sentences are analytic:

(b) Five is a number.

(c) ‘Five’ designates five.

Statement (b) is analytic for the reasons given in the previous paragraph. And the metalinguistic statement (c) is analytic because any sentence of the form “‘t’ designates t’ is analytic, provided that the term ‘t’ is a constant according to the semantic rules of the relevant framework (see Carnap, 1956 [1950], p. 217). (a) is analytic since (a) follows from (b) and (c). Since (a) is analytic, we do not need to show that numbers exist before accepting a mathematical framework.

Perhaps counter-intuitively, just as there are frameworks in which it is analytic that numbers exist, there also are frameworks in which it is analytic that physical objects exist (see Ebbs, 2017). To see this point, replace ‘Five’ by the name of some physical object (e.g. ‘Fido’ as a name of a dog). However, internal claims can be analytic or synthetic, where
the truth of synthetic sentences depends on certain factors in addition to the semantic
and syntactic rules of the given framework. To construct a framework in which it is not
analytic that physical objects, such as Fido, exist, one needs to impose constraints on the
admission of individual constants into the language. For instance, in a framework in
which the name ‘Fido’ is admissible only given empirical evidence of the presence of a
dog, it wouldn’t be analytic that the dog Fido exists.

Carnap also says that it can be empirically confirmed in the framework for thing prop-
erties that there are properties, which was the second example (B) I introduced in the
beginning of this section. Why should this be so? The framework for thing properties
is obtained by adding to the framework for things. The framework for things provides
rules for the empirical evaluation of statements, such as “Beyoncé’s dress is red” (p. 207).
Suppose that this statement counts as empirically confirmed according to the rules of the
framework for things. The framework for thing properties is obtained from the system for
things in two steps (p. 211): one first adds second-order variables \((f, g, \ldots)\), so that prop-
erty terms (‘red’) are substitutable for these variables. One, second, adds a general term
(‘property’) that allows one to form higher-order quantified phrases that bind second-
order variables. The empirically confirmed statement that Beyoncé’s dress is red now
entails by the rules of the framework for thing properties that there is a property \(f\) such
that Beyoncé’s dress has that property, and hence that there are properties.

6 Why are External Statements Noncognitive?

Why should external statements be “non-cognitive”? As I have explained in §4, frame-
works provide rules of designation. Purely external statements are independent from all
frameworks. It is hence indeterminate what purely external statements designate, which
is why they are non-cognitive. Pragmatic external statements, in contrast, concern which
frameworks one ought to accept. They express the acceptance of particular rules of assess-
ment, which (I will argue) is a non-cognitive mental state. Specifically, pragmatic external
statements express noncognitive dispositions to follow particular rules of assessment. For example, “there are numbers”, understood as a pragmatic external statement, expresses a noncognitive disposition to follow only rules of assessment according to which there are numbers. Pragmatic external statements express these noncognitive mental states similar to how “grass is green” expresses the belief that grass is green; i.e., without asserting that the speaker possesses this mental state (which would be a factual claim).

Carnap’s noncognitivism can be usefully compared to norm-expressivist views about ethics. According to Gibbard (2003), normative sentences express special kinds of semantic contents, which are sets of world-hyperplan pairs \( \langle w, h \rangle \). A “hyperplan” is a formal device that represents a norm and that, for each occasion for action \( c \) in a world \( w \), determines which actions are permitted at \( c \).\(^{29}\) Acceptance of a norm \( n \), for Gibbard, amounts to a disposition to assess the semantic contents of normative sentences only relative to hyperplan parameters that model \( n \). As Gibbard (2003, p. 91) puts it: “Hera accepts hyperplan \( p \). She thus regards an act \( a \) as okay to do in a situation \( s \) if and only if her plan \( p \) permits \( a \) in \( s \).” Norm-acceptance, in this view, is a disposition to follow particular rules for the assessment of special kinds of semantic content. Such a disposition is a noncognitive attitude assuming that norms are not true or false, since in that case it is not an attitude towards a kind of truth-functional content.

Carnap’s noncognitivism may prima facie look very different from Gibbard’s. Gibbard’s “hyperplans” provide rules for the assessment of special kinds of semantic contents. Carnap does not invoke special kinds of semantic contents, and his rules of assessment include syntactic and semantic rules concerning the evaluation of “statements”. However, it is crucial for a proper understanding of Carnap’s view that ordinary language sentences say something, even before and independently of the formal assignment of a semantic content in a framework. Carnap uses ordinary English for the definition of frameworks, which would be impossible if outside all frameworks ordinary language

\(^{29}\)An “occasion for action” is a world centered on an agent and a time.
was simply meaningless. “Frameworks” hence provide rules for the evaluation not just of statements but, indirectly, of what is ordinarily said by these statements. That means that frameworks, according to my interpretation, do not merely determine the semantic content of ‘there are numbers’, or whether there are numbers, but rather determine what is required for there to be numbers. Carnap’s and Gibbard’s views hence are structurally analogous. The acceptance of a framework is a disposition to assess statements with a certain meaning using only rules with particular features. Just as in the case of norm-acceptance, the acceptance of a framework, so understood, is a noncognitive attitude assuming that rules of assessment are not true or false, since then it is not an attitude towards a kind of truth-functional content.

Why should framework rules not be true or false? It is essential for Carnap’s view that framework rules are analytic. Consider, for instance the following rule of designation:

(a) ‘Five’ designates five.

(a) can be understood in various ways. Understood as a descriptive sentence, (a) is false if the number five does not exist, since then ‘five’ cannot designate this number. Alternatively, one might understand (a) as a prescriptive sentence that stipulatively defines semantic features of ‘five’, similar to an act of baptism. But this is also not what Carnap has in mind, since one can successfully baptize only an existing child, and stipulate that ‘five’ designates five only if five exists. But understood as a rule of the number framework, (a) is analytic, whether or not the number five exists as a metaphysically contingent feature of reality. The reason is, as explained in the last section, that for each constant \( t \) of the number framework, “\( t \) designates \( t \)’, is an analytic rule of the framework.

It is common to think of analyticity as truth in virtue of meaning, which would mean that analytic sentences are \textit{true}. However, Carnap’s notion of analyticity is importantly different. As explained in §2, Carnap’s view is inspired by Wittgenstein’s notion of a tautology. Tautologies, for Wittgenstein, are not genuine propositions. Analytic sentences, for Carnap, are similarly distinguished by their lack of any kind of descriptive content.
This point is important, since the acceptance of a framework rule hence is an attitude towards something without descriptive content and is in this sense a noncognitive mental state. Hence, pragmatic external statements, that concern which framework one ought to accept, do not express beliefs but express noncognitive mental states. This drives home one of the main points I want to make in this paper.

Carnap’s view that framework rules are analytic should not be mistaken for a general kind of semantic nonfactualism, as it is sometimes ascribed to Kripke’s Wittgenstein. Carnap’s view is compatible with arguing that, once it is fixed what it takes for a term to refer to something, we can describe the semantic features of an empirically given language (say, ordinary English). Carnap (1937 [1934], pp. 6–7) draws attention to this point by distinguishing between pure and descriptive syntax. Pure syntax concerns the stipulative definition of a formal system, while descriptive syntax concerns the description of the syntactic features of empirically given formal systems.30

An important upshot if this interpretation is that “metaphysics”, for Carnap, is not simply “meaningless”. Carnap suggests that metaphysicians raise “external” questions, and I have argued that (in his view) pragmatic external statements express noncognitive mental states. That means that least a certain range of metaphysical disagreements concern a decision between various noncognitive attitudes. What is the point of these sorts of disagreements? Why should one care about pragmatic external questions? I want to suggest that frameworks determine structures, and disputes concerning pragmatic external questions serve the purpose of coordinating speakers on, so to speak, “looking at” the same structures when assessing statements. I’ll explain both claims in turn.

Frameworks determine structures as follows. Carnap (1956 [1950], pp. 213–214) says that the two “essential” steps in the introduction of a framework are:

“[f]irst the introduction of a general term, a predicate of higher level, for the

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30Carnap’s (1937 [1934]) use of the term ‘syntax’ does not line up with how this term is used in contemporary philosophy and linguistics. The study of syntax, for Carnap, includes many questions that would today count as semantic. Furthermore, a “language”, for Carnap (1937 [1934]) is what we would today call a “formal system”.

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new kind of entities, permitting us to say of any particular entity that it belongs to this kind (e.g., ‘Red is a property’, ‘Five is a number’). Second, the introduction of variables of the new type. The new entities are values of these variables; the constants [...] are substitutable for the variables.”

It is evident from this passage that Carnap uses a many-sorted language, in which each variable is indexed to a specific sort, and for each sort $i$ there is a universal quantifier symbol $\forall_i$. He says that the second “essential” step in the introduction of a new framework is “the introduction of variables of the new type” (Carnap, 1956 [1950], p. 213–214). The relevant types are not type-theoretic types (such as e.g. the type of individuals), but types corresponding to sortal predicates, such as ‘property’ and ‘number’. That is, each variable is indexed to entities of a specific sort. Numerical variables range over only numbers, property variables range over only properties, and so on.\(^{31}\) The important feature of a many-sorted language is that only entities of specific sorts can make a difference to the truth-values of specific sentences. Specifically, the truth-value of universally generalized sentences depends on only the entities for which there is a type. Entities that are not the value of some typed variable have no impact on the truth-value of any sentence.\(^{32}\) Conversely, by introducing into a framework variables of a new sort, entities of this new sort acquire the potential of influencing the truth-value of sentences, and are in this sense “new entities”. Frameworks can thus be understood as stipulatively defining certain structures.

It is important that the introduction of a framework, so understood, does not bring any entities into existence. The introduction of a framework merely has an effect on which entities may affect the truth-values of sentences. For instance, the framework for physical things determines what is required for there to be an elephant (say), but does not

\(^{31}\)The importance of typed variables should be evident from my discussion in §5.

\(^{32}\)Given a many-sorted language, we can always recover a one-sorted language, by forming the union of all domains of some quantifier in the many-sorted language. The typed quantifiers in a many-sorted language can hence be thought of as ranging over a domain that is restricted by a sortal concept. But the various one-sorted domains that correspond to the different frameworks need not similarly be thought of as restricted versions of a largest domain. The reason is that there are no framework-independent rules that determine how to collect together the domains corresponding to various frameworks.
determine whether anything in facts satisfies these requirements. Carnap is hence not committed to ideas that objects exist merely framework-dependently.

I think that debates of pragmatic external questions serve the purpose of coordinating speakers on, so to speak, “looking at” the same structures when assessing statements. As I discussed in §4, Carnap is of the view that this coordination would provide speakers with a common criterion for deciding controversies, and he thinks that the possession of such a criterion is vital for a productive discussion. The possession of a common criterion ensures that speakers are engaged in a cognitive disagreement. Coordination on a framework need, however, not be an end in itself. The number framework is better suited for the purposes of evaluating mathematical statements than a framework without numbers. Pragmatic external statements may often serve the goal of coordinating speakers on commonly accepting the framework which is best suited for certain aims.

7 Alternative Interpretations

The most popular existing accounts of Carnap’s internal/external distinction are language pluralist interpretations, as defended by Eklund (2009, 2013, 2016), Hirsch (2011), Price (2009), Thomasson (2015), Yablo (1998) and others. Language pluralists assert that “frameworks” are interpreted languages. Various frameworks may then differ in one of two ways: they either contain different syntactically identified expressions, or some syntactically identified expression varies in meaning. Accepting a framework, in this view, amounts to speaking a certain language, and speakers who accept different frameworks

33I think that Quine (1953 [1951]) challenges whether this distinction is a real distinction when he questions whether there is a real distinction between analytic and synthetic sentences. My main goal here, however, is to explain Carnap’s view, rather than defending it against all possible objections.

34Proponents of language pluralist interpretations fall into two camps: philosophers (such as Price (2009) and Yablo (1998)) who claim that Carnap was a language pluralist, and philosophers (such as Hirsch (2009)) who propose a language pluralist view and merely claim that it is in some way inspired by Carnap.
are understood as speaking different languages. The crucial point of the view is that, supposedly, only the meanings of sentences but not reality itself is framework-relative. Price (2009, p. 324) thus emphasizes that Carnap’s view should not be understood as a kind of “pluralism about the furniture of reality”, but as a “pluralism about language—about the linguistic frameworks in which, and the purposes for which, we go in for the business of ontological commitment”.

Language pluralist interpretations contrast with relativist interpretations. According to relativist interpretations, not merely the meaning of sentences such as ‘something is a number’, but whether there are numbers is “framework”-relative. Eklund (2016, p. 166) describes the contrast as follows:

“First, there is the language pluralist interpretation. On this interpretation, the ‘frameworks’ are simply languages, or language-fragments, and the only framework-relativity at issue is the familiar one of sentence-meaning to language. [...] On a second, relativist, understanding of Carnap’s notion of a framework, ‘frameworks’ are not mere language-fragments; instead, frameworks are the sorts of things relativists appeal to—something like perspectives or outlooks. Framework-relativity is not the trivial dependence of meaning upon language. Instead, the propositions that the sentences express are not true or false absolutely but only relative to frameworks.”

Given this characterization of relativist interpretations, the key commitment of the view is that “frameworks” essentially are nonstandard parameters on which the truth-value of some or perhaps all propositions depends.35

As discussed in the last section, Carnap (p. 213) speaks of the acceptance of “a new kind of entities”, and of “new entities” as the values of newly introduced variables. These remarks suggest that what there is may vary between frameworks, and prima facie speak

35In a Kaplanian semantic approach, standard parameters would include a world, a time, and a place. Relativists such as MacFarlane (2014) argue that the truth-value of certain propositions depends on nonstandard parameters. For instance, in one version of this view, the proposition that vegemite is tasty is true or false only relative to a standard of taste, which is a nonstandard parameter.
against language pluralist interpretations.\textsuperscript{36} However, despite passages such as these, relativism is rarely taken seriously as an interpretation of Carnap’s internal/external distinction. There are good reasons for this. Carnap (1935, p. 19) regards views about the “reality” of certain kinds of objects as “metaphysical”, and includes in this class of views realism, idealism, solipsism and positivism. He takes opposition to such “metaphysical” views, by saying (p. 21) that he “neither assert[s] nor den[i]es these theses, [but] reject[s] the whole question.” Relativist views about the existence of numbers effectively say that numbers are not “real” but exist merely relatively to something else like a perspective or standpoint. It hence appears that relativist interpretations ascribe to Carnap a view that Carnap would regard as “metaphysical”. Given Carnap’s opposition to “metaphysics”, it is very implausible that he should put forward a view that by his own lights counts as “metaphysical”. I will therefore in what follows set aside relativist interpretations.

My interpretation does not share the problems of relativist interpretations. Relativists think that certain kinds of semantic contents, i.e. relativistic propositions, can be assessed relative to different frameworks. This is why it may be true in one framework that there are numbers but false in another, and numbers exist merely framework-dependently. In my view, we have to distinguish between two dimensions in the meaning of “there are numbers”. This statement possesses a certain ordinary meaning, and says that there are numbers. It possesses a clearly defined semantic content only relative to a framework, and no semantic content has a merely relative truth-value. This is why it is at best misleading to say that numbers exist framework-dependently. To put the point differently, “frameworks” include truth-definitions. One and the same statement may be true\textsubscript{1} relative to framework \(f_1\) but be false\textsubscript{2} relative to framework \(f_2\). But if the meaning of ‘true’ is held fixed every statement has a determinate truth-value.

According to language pluralist interpretations, “frameworks” are interpreted languages, and internal statements are interpreted sentences in such a language. Language

\textsuperscript{36}This observation is not a knock-down argument against language pluralism, since language pluralists might come up with a non-literal interpretation of what Carnap says.
pluralists may, furthermore, distinguish between purely external and pragmatic external statements, as follows. Purely external statements are not part of an interpreted language and literally meaningless. Pragmatic external statements, however make a pragmatic proposal for which language one ought to speak. A popular way of developing this view, going back to Yablo (1998, p. 234) and further pursued by Price (2009, p. 324) and Thomasson (2015, p. 36), appeals to the use/mention distinction. In this view, internal statements make a standard use of terms and succeed at expressing a certain meaning. Philosophers however try to make a nonstandard use of certain terms and as a result do not properly use but merely mention certain terms. Their utterances are therefore not properly meaningful, or at best express claims about certain terms (as in “numbers’ exist’). Purely external statements, in this view, usually are “cognitively meaningless” in the sense of being literally meaningless. Pragmatic external statements, however, are “cognitively meaningless” in the sense that they do not assert anything but merely make a pragmatic proposal for which language one ought to speak.

The main difference between my view and language pluralism is, again, that I think we have to distinguish between two dimensions of meaning. “There are numbers” expresses a certain ordinary meaning, and says that there are numbers. Frameworks assign a formally defined semantic content to this statement and thereby determine what is required for its truth. This difference between language pluralism and my interpretation has important consequence for the interpretation of Carnap’s metaphilosophy. Assuming that a certain portion of metaphysics concerns the discussion of pragmatic external statements, language pluralists are led to argue that a certain portion of metaphysics concerns which language one ought to speak. I argue, in contrast, that a certain portion of metaphysics concern which rules should be used in the assessment of given statements. In the next section, I will go on to argue against language pluralist accounts.
8 Against Language Pluralism

My basic argument against language pluralist interpretations is simple. Carnap distinguishes between “internal” and “external” questions with the goal of reconciling empiricism with the acceptance of abstract entities. If language pluralists are right, then Carnap’s basic strategy for reconciliation is hopeless for fairly obvious reasons. A central component of his strategy is to argue that the rules of the number framework entail that numbers exist. Language pluralists have a specific view on what “framework rules” are. I will argue that framework rules, as language pluralists conceive of them, do not plausibly entail that numbers exist. Since it is implausible that Carnap should have tried to solve a deep problem of central interest to him by obviously inadequate means, language pluralist interpretations should be rejected. I will first explain what, according to language pluralists, framework rules are, and then argue that these rules do not entail that numbers exist.

Language pluralists say that “frameworks” are interpreted languages. “Framework rules” hence are the rules that define an interpreted language. The nature of these rules could be spelled out in various ways. For example, a fairly common view on what a language is would distinguish between syntactic and semantic rules. The syntactic rules describe the syntactic elements of the language and their possible combinations. The semantic rules could be of two kinds:

(i) rules that map linguistic expressions onto extensions (say ‘five’ to five), or

(ii) rules that describe the inferential relations between linguistic expressions.

A “framework” rule of the latter kind (ii) could be a rule that allows us to infer the sentence ‘numbers exist’ from the sentence ‘five is a number’.

The just sketched language pluralist view on what “framework rules” are leads to ascribing the following view to Carnap:

“The number framework is an interpreted language which is defined by syntactic and semantic rules which entail the truth of the sentence ‘There is an x
such that \( x \) is a number’. I.e., this sentence is true in virtue of the syntactic and semantic rules provided by the framework.”

This view is false, for fairly obvious reasons. Linguistic rules are conventional and do not entail that numbers exist. For instance, consider a specific rule of the first kind (i), that maps ‘there are numbers’ onto the proposition that there are numbers. This mapping establishes a relation between a sentence and a proposition but does not entail anything about the truth of that proposition. Language pluralists in particular should agree with this, since the whole point of language pluralist interpretations is that merely which proposition ‘there are numbers’ expresses but not the truth-value of this proposition is a framework-dependent matter.

Language pluralists have in recent years tried to explain why it is analytic that there are numbers by appealing to inference rules, which would be framework rules of the second kind (ii) distinguished above. In particular, Thomasson (2015, p. 37) argues that the sentence ‘Five is a number”, as it is understood in ordinary language, expresses an obvious truth, and analytically entails the sentence ‘numbers exist’. This view rests on a particular view on the term ‘exists’, according to which we can infer that \( F \)s exists whenever the application conditions of the predicate ‘\( F \)’ are satisfied. Since five satisfies the application conditions of ‘number’, we can infer that numbers exist.\(^{37}\) In this view, ‘there are numbers’ is analytic in the number framework in the limited sense of being analytically entailed by an obvious truth. My goal here is not to assess this view in its own right, but I will argue that it is doubtful that it was Carnap’s.

First, Carnap nowhere appeals to ordinary language. On the contrary, he recommends: “Let us be cautious in making assertions and critical in examining them, but tolerant in permitting linguistic forms” (1956 [1950], p. 221). This programmatic exclamation makes it seem doubtful that Carnap places any special emphasis on ordinary language. Second,

\(^{37}\)Thomasson offers structurally analogous argument for the existence of properties, propositions, and the like.
Carnap does not speak of obvious truths, and in particular does not say that it is obvious that five is a number. He takes empiricist concerns very seriously, and wants to provide an explanation for why empiricism is compatible with the acceptance of abstract entities. Starting this explanation with the assumption that five obviously is a number would be begging the question. Third, instead of saying that “five is a number” expresses an obvious truth, Carnap explicitly says that this statement is analytic (p. 209). That is an important difference, since language-pluralists have difficulties to explain why it should be analytic that five is a number. A sentence is analytic in a framework, according to Carnap, if it is entailed by the rules of the framework. Language pluralists say that framework rules are the semantic and syntactic rules that define an interpreted language, and hence effectively equate analyticity with truth in virtue of meaning. But ‘five is a number’ is not true in virtue of its meaning, given that this sentence is false if five does not exist.

Language pluralists could respond to these objections by arguing that the framework of mathematics is one that interprets sentences that seem to carry existential commitments by mapping them onto meanings that are not existentially committing. In this view, ‘there are numbers’ may be analytic in the number framework since the truth of this sentence as interpreted in the number framework does not require that numbers exist. But there are three problems with this view.

The first problem is that, as already remarked, Carnap accepts Quine’s criterion for how one incurs ontological commitments. He says (1956 [1950], p. 214, fn. 3):

“W.V. Quine was the first to recognize the importance of the introduction of variables as indicating the acceptance of entities. ‘The ontology to which one’s use of language commits him comprises simply the the objects that he treats as falling ... within the range of values of his variables’.”

This quotation gainsays interpretation according to which Carnap holds that seemingly ontologically committing sentences are not really ontologically committing. Second, the proposed view would at best reconcile empiricism with acceptance of the sentence ‘there are numbers’, but not with the acceptance of numbers. Carnap says, however, that he
wants to reconcile empiricism with the acceptance of abstract entities (p. 206). Propo-
nents of the proposed interpretation need to interpret this claim nonliterally, which speaks
against it since (other things being equal) a literal interpretation is to be preferred. Fur-
thermore, the proposed interpretation trivializes Carnap’s view, since there is no obvious
conflict between acceptance of the sentence ‘there are numbers’ and empiricism. This sen-
tence may well be interpreted to express an empirically verifiable proposition, such as the
proposition that grass is green.

My arguments in this section rest on specific conceptions of what languages and lin-
guistic rules are. Language pluralists could come up with alternative conceptions of what
linguistic rules are that I have not yet considered. But it is unlikely that any alternative
conception would be of much help to language pluralists. The key commitment of the
view is that “frameworks” merely determine what ‘there are numbers’ means, and do
not determine whether there are numbers. But Carnap’s basic strategy for reconciling
empiricism with the existence of abstract entities requires that the rules of the number
framework entail that there are numbers. The key commitment of language pluralism is
hence incompatible with Carnap’s basic ambitions.

9 Conclusion

I have argued that Carnap (1956 [1950]) should be understood as the proponent of a dis-
tinctive kind of noncognitivism about ontology. The proper understanding of his view
requires to distinguish between internal, purely external and pragmatic external state-
ments. I have argued that pragmatic external statements express noncognitive mental
states. Specifically, Carnapian “frameworks” are rules for the assessment of statements,
and pragmatic external statements express dispositions to follow only particular rules of
assessment. Since the relevant rules are analytic and have no descriptive content, dispo-
sitions to follow them are noncognitive mental states. This interpretation is particularly
well suited to explain Carnap’s attempt to reconcile empiricism with the acceptance of
abstract entities, which is an obstacle for alternative interpretations, and in particular for language pluralist interpretations.\textsuperscript{38}

\section*{References}


—— 1937 [1934]: \textit{The Logical Syntax of Language}. Routledge.


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—— 1953 [1951]: “Two Dogmas of Empiricism”. In *From a Logical Point of View*, Harvard University Press, pp. 20–46.


