On the Ontology of Linguistic Frameworks Toward a Comprehensive Version of Empiricism

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Résumé : Peut-on désigner les *entités abstraites* ? Alors que les empiristes ont le plus souvent considéré une réponse positive à cette question comme le premier pas vers le platonisme, Carnap a tenté, dans « Empiricism, Semantics, and Ontology » [Carnap 1950], d'opérer une réconciliation entre le langage, d'une part, qui *réfère* aux entités abstraites, et l'empirisme d'autre part. Dans cet article, je montre tout d'abord que, indépendamment son ingénuité, l'approche de Carnap est sujette à critique sous différents aspects. Mais je montre également comment les défauts pourraient être corrigés, cela même sans abandonner le programme de recherche empiriste. En me référant au projet de départ de Carnap en 1950, et en ajoutant quelques ingrédients d'apparence douteuse (de type meinongien), j'esquisserai une solution plus raffinée pour traiter du problème de l'existence des entités abstraites dans le cadre de la philosophie empiriste.

Abstract: Can the *abstract entities* be designated ? While the empiricists usually took the positive answer to this question as the first step toward Platonism, in his "Empiricism, Semantics, and Ontology" [Carnap 1950], Carnap tried to make a reconciliation between the language *referring* to abstract entities on the one hand, and *empiricism* on the other. In this paper, firstly, I show that the ingenuity of Carnap's approach notwithstanding, it is prone to criticism from different aspects. But I also show how, even without leaving the empiricist research program, the shortcomings could be amended. Following Carnap's 1950 outset, and adding some apparently untasteful (Meinongian) ingredients, I will sketch a refined way for dealing with the problem of existence of abstract entities within the framework of the philosophy of empiricism.

An existential discourse
Homer Simpson: I want *Chocolate Star Wars*
Squeaky Voiced Teen:
I am sorry sir. The computer says that the movie *Chocolate Star Wars* does not exist!
Homer Simpson: I say you don't exist!

1   Introduction

"Do unreal objects exist"? After the publication of Bertrand Russell's brilliant "On Denoting" [Russell 1904], it became too incautious to give a sure positive answer to the question. Perhaps it was Russell's gifted manners in putting arguments in their precise logical forms, or his wits in spoofing away anything contrary to his cultivated philosophical taste, or simply his reputation as the heir of the British empiricists, which persuaded the fellow-empiricists like Schlick [Schlick 1915] and Quine, [Quine 1951, 1947] to dismiss the Meinongian answer to this question as irrelevant and misleading. Thus Meinong was destined to be the empiricists' public enemy No. 2, next to no one else but Plato himself. Surprisingly enough, even the traditional Meinongians read him in this extraterrestrial platonic light (for example see [Castañeda 1974], [Routley 1980], [Lambert 1983]). Recently, however, it has been shown that Meinong deserves to be defended in surer and more naturalistic setting, see [Davoody Beni 2013]. I will go one step further than that: the bitter enemy (i.e., Meinong) turns out to be a sweet friend, and far from endangering the main tenets of empiricism, his accomplishments may be used in the way of fixing some shortcomings of the Carnapian philosophy.

Historically speaking, Carnap was the heir to Russell who was the principal heir to pure-blood old British empiricists in his turn. For empiricists "to account for the external world as a logical construct of sense-data—such, in Russell's terms, was the program. It was Carnap, in his *Der logische Aufbau der Welt* of 1928, who came nearest to executing it" [Quine 1951, 74]. Quine's account of Carnap's program has been somewhat challenged in the recent literature, see [Friedman 1987], [Richardson 1990]. But this does not need to be a source of concern in our enquiry. Neo-Kantian influences on his thought granted, Carnap could still be assumed to be under Russell's spell in some salient aspects.[1] Ironically, while Carnap's ancestor (Russell) and Carnap's descendant (i.e., Quine), both were the headstrong critics of Meinong's philosophy and its ontological consequences, the Meinongian view would be appealed

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1. Carnap's own intellectual autobiography [Carnap 1963, 18, for example], and *Aufbau* [Carnap 1928, section 3, 124, 183] seem like other reliable sources for showing he was committed to empiricism. This may very well be consistent with his neo-Kantian motives and concerns about objectivity.

to in fixation of Carnapian empiricism, at least to the extent that the problem of abstract entities is at issue.

Technically speaking, Carnap was deeply concerned with the philosophical questions about designation of the terms allegedly referring to abstract entities. In spite of his concern, Carnap did not endorse any *ontological* approach to the question, and tried to deal with them in purely *semantical* terms. And this is exactly the point where Carnap's thought clashes to Meinong's. Meinong devised an ontological system which included all kinds of everything, existent, subsistent, or even extra-existent, all together in one system.

Notwithstanding the traditional understanding of the relationship between the empiricist camp and Meinong, in this paper I suggest that far from contradicting the empiricist agenda, and in a compromising move, the Meinongian view supplies the Carnapian program, and promotes it in the way of coming to a final solution for the problem of existence of abstract entities, and, finally in the way of accomplishing a comprehensive version of empiricism.

2   The empiricist's dilemma

The story of how Carnap's semantical approach evolved out of his syntactical endeavor, the role of Tarski in this evolution, and its gains and losses are discussed by Carnap and others on different occasions (for example see [Carnap 1963, 30] and [Creath 1998, 1990, 61]). We do not need to focus on the historical context here. What is more important, for us, is to mull over some significant gains that Carnap has earned out of the semantical approach.

On an ordinary reading, semantics is supposed to be concerned with the referential relation between the terms of a language on one hand, and the referents dwelling in an extra-linguistic sphere on the other hand. In this sense, adopting a semantical approach may commit us to the existence of the external world or a platonic heaven which includes the referents of the abstract entities.

But Carnap took a different route. He defined a semantical system as a "system of rules, formulated in a metalanguage and referring to an object language, of such a kind that the rules determine a *truth-condition* for every sentence of the object language, i.e., a sufficient and necessary condition for its truth" [Carnap 1942, 22]. Carnap's view was obviously influenced by Tarski's austere, and even deflationary, approach. According to Tarski

> [...] the semantic definition of truth implies nothing regarding the conditions under which a sentence like [...] snow is white can be asserted [...]. Thus, we may accept the semantical conception of truth without giving up any epistemological attitude we may ever have had; we may remain naive realists, critical realists or idealists, empiricists or meta-physicians-whatever we were before.

The semantic conception is completely neutral toward all these issues. [Tarski 1944, 362]

Empiricists' unwillingness for acceptance of ontological commitments was well-known, and if Tarski could dodge the commitment so effortlessly, why should Carnap embrace it?

It is in this context that in "Empiricism, Semantic, and Ontology" [Carnap 1950, hereafter ESO], Carnap addressed the problem of existence of abstract objects by drafting what I call the empiricist's dilemma; the dilemma posits the views of the majority of empiricists, who generally felt themselves in "much more sympathy with nominalists", against others who were accused of being Platonists. It holds that:

- Regarding the abstract terms,[2] either we should call them meaningless (i.e., referent-less) and become nominalists, or we should commit ourselves to Platonism.

With respect to any kind of abstract entities, such as properties, classes, relations, numbers, propositions, etc., the empiricists felt much more in sympathy with nominalists than with realists. But for Canap "acceptance of a language *referring* to abstract entities does not imply embracing a Platonic ontology but is perfectly compatible with empiricism and strictly scientific thinking" [Carnap 1950, 85, emphasis is mine]. If Carnap could argue for his claim, the dilemma would have been eliminated, and a more comprehensive version of empiricism would have emerged. Let's go for some further details.

Carnap's principal strategy for dealing with the problem has been based on differentiating between internal and external questions. Internal and external were defined with regard to the borders of the Linguistic Framework (hereafter LF). In this view, internal questions were questions about the existence of certain entities *within the framework of an accepted language*. The external ones were questions concerning the existence or reality *of the system of entities as a whole*. Carnap's groundbreaking solution emerged right there: only the questions of the first kind were considered to be legitimate. The members of the latter group were actually pseudo-questions. Every question, explanation and justification had to be put forward, only after the establishment of the framework. In Carnap's words:

Many philosophers regard a question of this kind [about the existence and reality of entities] as an ontological question which must be raised and answered *before* the introduction of the new language forms. The latter introduction, they believe, is legitimate only if it can be justified by an ontological insight supplying an affirmative answer to the question of reality. In contrast to this view, we take the position that the introduction of the new ways

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2. I am not sure that "abstract term" is meaningful literally, but I use it here to indicate a term which allegedly refers to an abstract entity.

> of speaking does not need any theoretical justification because it
> does not imply any assertion of reality. [Carnap 1950, 91]

Once the framework has been settled, its pertinent internal questions could
be answered either by logical or empirical methods. The concept of reality
occurring inside framework was an empirical, scientific, logical and in anyway
a non-metaphysical concept.

In this way, by a simple waving of the semantical wand, the dilemma has
vanished. The moral of Carnap's paper was that nominalism, as the thesis
which denies existence of abstract entities, is every bit as metaphysical as
Platonism. Carnap's semantical approach, on the other hand, was devised to
be neutral, and even elusive, with regard to the metaphysical questions.

3 Failures

3.1 The inside, the outside, and introduction of new entities

Carnap's semantical approach with regard to the existential questions is pleas-
antly sophisticated, but it is not consistent with our most common (and per-
haps naïve) intuitions about reality. Our intuitions have been known to be
misleading previously, and they do not deserve to be trusted blindly. But the
inconsistency between Carnap's approach and the common sense has to be
highlighted all the same. Let me elaborate.

First of all, as one Archytas of Tarentum pointed out for the first time, it
is strange *ipso facto*, to have some inner space without having the pertinent
adjacent outer space. Imagine that we are encircled in a circle suspended in
the void, deprived of the existence of any adjoining outer space to encom-
pass it. Now what happens if we stretch a hand (or a spear) outside the
circle? Does the spear simply vanish into the thin air? Apparently there lies a
problem (or an antinomy, in Kantian terms), even when there are ontological-
linguistic spaces that we are talking about. Let me translate the example of
the outstretched hand into the Carnapian vocabulary.

There certainly was a time when people didn't speak about electrons, and
then speaking about them became current in the scientific circles and everyday
talks. Did electrons not exist before that? What is the story of their genesis?
Did the physicist say let there be light and electrons began to run all through
the wires of creation? We can ask the same question about existence of any
other scientific entity in the same tone.

I understand that, to the old Archytas' dismay, Carnap could deal with
this objection masterfully: after a significant discovery, the linguistic system
changes, the LF would give place to a new one which is more convenient
for speaking about the new situation. Introduction of new entities as new

variables into the LF does not need any theoretical justification, because they follow from the rules which are laid at the foundation of the framework, see [Carnap 1950, 89].

Therefore, there are some rules of inference and some postulates, laid at the foundation of the linguistic system. These rules are responsible for the emergence of other true sentences of the system. Let us deliberate this axiomatic aspect.

3.2   The role of experience in the constitution of axioms

As we saw Carnap's conception of the linguistic system was an axiomatic one. What does it mean? Does this mean that the sentences of the system are derivable in a deductive manner? If so, what is the role of experience in constitution of the system? Experience should play its role through the choice of axioms, that is, to use Carnap's terminology, through the choice of the rules of formation and transformation, and in the semantical period, the rules of reference as well. And it does play its role; but in a very complicated and indirect manner. Let me elaborate.

Although in different stages in his work Carnap appealed to descriptive predicates [Carnap 1932-1937, 30] or *F*-Truths [Carnap 1939, 13] to connect his linguistic system to the world of experience, he mostly maintained certain reluctance to go beyond the borders of the artificial language to channel to what lies outside. In other words, as he explicitly remarked in *Introduction to Semantics*:

> It is especially important to be aware of the fact that the rules of designation do not make factual assertion as to what are the designata of certain signs. There are no factual assertions in pure semantics. The rules merely lay down conventions in the form of definition of "designation in *S*". [Carnap 1942, 25]

But to do justice to Carnap's thought, I shall remark that he was aware of the peril of hazardous influence of the conventional elements in dislodging his system from the factual world. The choice of linguistic frameworks and their rules are conventional, that is true enough, but the conventional elements which are at work in the choice shall not threaten the objectivity of the system and its relation to the world of experience, because there are factual counterparts involved in the choice of LF which counterbalance the conventional aspects and atone for them:

> The acceptance and the rejection of a (synthetic) sentence always contain a conventional component. That does not mean that the decision—or, in other words, the question of truth and verification—is conventional. For, in addition to the conventional

> component there is always the non-conventional component—we
> may call it, the objective one-consisting in the observations which
> have been made. [Carnap 1936, 426]

He insisted, almost unalterably, on involvement of factual elements in
the choice of linguistic system, until the mid 1960s (for example see [Carnap
1966, 68]).

There are of course Quinean qualms about the possibility of making dis-
tinction between the conventional and the factual elements involved in the
choice of LFs. Quine had, elaborately, held that language is "a pale gray lore,
black with fact and white with convention", but there are "no substantial rea-
sons for concluding that there are any quite black threads in it, or any white
ones" [Carnap 1963, 125]. I do not know whether we would be convinced by
Carnap's answer to Quine or not (they are mentioned in [Carnap 1963, 915–
922]), but it is not my primary concern right now either. I have, however, some
other concerns about adequacy of Carnap's account of the relation between
the factual and the conventional elements. They are to be spelled out in the
next section.

3.3   The practical-theoretical gap

Let us assume, in the Carnapian manner, that there are factual and non-
conventional elements involved in the decisions which lead to the choice of
a certain LF. How are these elements to be reconciled with the conventional
counterparts of the choice? As early as 1934, Carnap claimed that the factual-
ity penetrates into the linguistic system through the methodological practical
considerations that are at work in the decisions about the choice of LF:

> The construction of the physical system is not effected in accor-
> dance with fixed rules, but by means of conventions. These con-
> ventions [...] are, however, *not arbitrary*. The choice of them
> is influenced, in the first place, by certain *practical methodologi-
> cal* considerations (for instance, whether they make for simplicity,
> expedience, and fruitfulness in certain tasks). This is the case
> for all conventions, including, for example, definitions. [Carnap
> 1932-1937, 320, emphasis is mine]

There are *practical* considerations however, and as Carnap emphasized,
even in ESO, we cannot discuss the choice in a theoretical language which
conveys cognitive content [Carnap 1950, 87]. And if there is any objectivity
and factuality interwoven into the fabric of the decision which leads to the
choice of the linguistic system, at least we can be sure that they cannot be
expressed via our theoretical language. The methodological practical consider-
ations somehow rise above the borders of LF, as extra-linguistic considerations.
Therefore the choice remains, at least at the *theoretical and epistemic* level, as
arbitrary as ever.

There exists, however, a typical answer to this question. Carnap did not explicitly formulate this answer, but it has a footing in his works:

> That the conventions constituting the system of justification are at bottom arbitrary poses no threat whatever to the objectivity of the postulates and their consequences. This was of particular concern to Carnap because he thought that all of logic and mathematics, insofar as the claims thereof can be assessed at all, is to be justified as are postulates and their consequences. Once a system of justification is chosen, i.e., once the various terms of the language are given a definite sense, it is a completely objective matter whether B is a consequence of A. It in no way depends on what any person may happen to imagine, think, believe, or know about these sentences. [Creath 1992, 148]

There is some reservation about Creath's reading though. The objectivity is confused with rule-following in this answer: people can posit conventions and make themselves observe them without letting (thereafter) their imagination and beliefs interfere with the process, and yet the system and all of its constituents can be at best as objective as the roles that the innocent children assume, zealously enough, in playing murderers and judges, when they represent courtrooms in their school theaters.

This shall not make us overlook the sunny side; Carnap affirmed half-heartedly that the choice *is not totally uninfluenced* by theoretical knowledge:

> The efficiency, fruitfulness, and simplicity of the use of the thing-language may be among the decisive factors. And the questions concerning these qualities are indeed of a theoretical nature. But these questions cannot be identified with the question of realism. [Carnap 1950, 87]

There is a new riddle then: if practical considerations, like usefulness, fruitfulness, etc., are of *theoretical* nature, why could they not be used as epistemic justifications for the preference of one linguistic framework over another? Apparently, Carnap held (at least in ESO) that the choice of a linguistic framework does not need any theoretical justification, as he was inclined to show extreme tolerance in this choice. I should make a disclaimer: I do not intend to infringe the principle of tolerance, which has been a relic of the syntactical period [Carnap 1932-1937, section 17, 51] survived into the ESO. I only want to point out that there is no imminent reason for being so conservative about the expansion of the domain of theoretical discussion, or for taking a cynical attitude toward the possibility of conceiving a vaster linguistic framework which could be the context of discussion of the considerations of fruitfulness, efficiency, etc. Bringing these considerations within the LF would presumably change their practical nature to something (theoretically) more discussable. And this (at least the part that deals with the existence of a vast

LF) was very much what Carnap himself held to be the case in the later years of his work:

> I always presupposed, both in syntax and in semantics, that a fixed interpretation of *ML [meta-language]*, which is shared by all participants, is given. This interpretation is usually not formulated explicitly. [Carnap 1963, 929]

4   The Meinongian amendment

In this section, I try to amend for the insufficiencies that I enumerated in the previous sections. I try to draw, with a few strokes, a rough sketch of an empiricist-friendly system based on the Carnapian foundations.

Let's suppose that there exists a linguistic framework. The Inside of the framework includes terms referring to existent things, as Carnap suggested. If we take the framework of scientific discourse as an example, the inside of the framework would be full of terms which denote scientific entities. But the inside of the framework is not disconnected from the outside, nor did it emerge out of thin air miraculously in the first place. There should be a difference between inside and outside after all, and we cannot treat them on an equal footing, if we take Carnap's theory of LFs seriously enough. Hence my compromising approach:

The Outside of the framework is constituted by terms that are tokens of semi-existing things, rather than being an *empty* void like Carnap suggested. It is a void *full* of all kinds of everything. To be more precise, in this picture, the framework of full-fledged existent beings is implemented within a vaster framework of semi-existent ones. But the hierarchy of the frameworks does not need to stop here; outside each inner framework there exists a vaster outer framework, whose denizens do not exist as fully as the dwellers of the narrower framework. It even could be imagined that there is an ultimate framework, the vastest framework which literally includes everything, even some contradictory objects which partake in the least possible degree of being.

The assumption of existence of such a linguistic level, with entities that have such a meager share in being, might seem a futile assumption, but the appearances notwithstanding, it has its uses. To use a metaphor, we could expect all virtues of a *semantical seed-germinator* from this ultimately vast linguistic framework. It works in this way: when we want to refine our discourse and elaborate our views about existence of things, we begin from the vastest framework and, within this framework, we talk (negotiate) about the virtues and the vices of any narrower framework which we are going to choose according to whatever criteria that we may happen to have in mind. The rules of formations and transformations, the entities that are supposed to be embedded within the chosen framework, and any other feature that we want

to assign to the framework, all are stored within this seed-germinator. Their existential status is still undecided, and actually tends to zero. Their existential status would be improved, according to the level of a narrower LF in which they would be encompassed.

As we remember, for Carnap, in the ontological and metaphysical discourses, it was making commitments to the existence of objects outside any linguistic framework which was repelling. Here, the ontological questions that ask "what entities (or sets of rules) are to be chosen" is constrained within the borders of a LF, though it is an extremely vast LF that we are talking about. Carnap's reservation about making questions about what lies outside the LF has no bearing on the present situation.

Thus, to amend for the narrow-mindedness, which was the weak point of the standard reading of Carnap's approach, I introduced a vast all-comprehensive framework which could play the role of a seed-germinator for breeding (i.e., discussing) the rules and axioms, and finally the terms-entities, of the narrower frameworks.

This innovation is obviously inspired by the Meinongian idea of categorization of beings in three existential categories. According to this proposal the amount of existence of entities within each framework can be adjusted by a sieving process (i.e., some assessments and evaluations) which take place in a vaster framework.

We need not be afraid of the chaotic characteristic of Meinongian ontology in this reading, because the linguistic frameworks may as well work as hedges, in the way of imposing some order to the Meinongian jungle, which has been called by the anti-Meinongian "the breeding ground for disorderly elements" [Quine 1951, 4]. In this way, we can rest assured that the most significant semantical feature of Carnap's approach (i.e., the notion of linguistic framework) is retained in this synthesis. Thus, we assume that we are facing different degrees of beings assigned to different classes of entities encompassed within different linguistic frameworks. These are linguistic entities, however, and not the metaphysical objects, which are contained in these frameworks, because according to the Carnapian approach (which is the other counterpart of the synthesis) reality and existence are to be defined only within the linguistic frameworks. So the only adjustment (to the Meinongian system) occurred when I bonded the Meinongian beings within the *linguistic* frameworks. They do not exist or subsist or extra-exist in a metaphysical world or a Platonic heaven. They are bounded within linguistic regions.

The final remark is that the Carnapian conventional elements somewhat persist in this refined picture. Even here, the sentences which are bounded within the framework are not connected directly to the facts, but their truths are determined within a vaster linguistic framework. The designata of the terms of the adopted language are still linguistic entities, to Carnap's delight. But the important point is that the designation relation is not, even epistemically or theoretically, arbitrary any more. The designation relations are to be

discussed and fixed within a wider domain of the underlying framework, which works as the semantical seed-germinator. These discussions take place within the borders of a linguistic framework, and could be considered as valid theoretical discussions. And by the same token, the relation between the abstract entities and their designata would be more robustly established than what a nominalist is willing to accept.

Acknowledgements

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