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ON LOGIC, SYNTAX, AND SILENCE

Abstract. The relationship between Carnap's *Logical Syntax of Language* (hereafter *LSL*) ([1934] 1937) and Wittgenstein's *Tractatus Logico-Philosophicus* (*TLP*) ([1921] 1922) has been interpreted in several ways during past decades. One of the interpretations has gained keen advocates among Carnap scholars. It was originally provoked by what Carnap said in *LSL*, and it consists of two parts. First, it indicates that in *TLP* the possibility of speaking about the logical form of a language within the same language (which happens to be the only language that there is) had been foresworn by Wittgenstein, but Carnap proved him wrong by producing a book (*LSL*) written exactly in the manner which had been proscribed by Wittgenstein. This is the *debate about the possibility of speaking about logical form*.

Second, Wittgenstein's dogmatism with regard to the existence of a unique correct grammar at the foundation of the language has been contrasted with Carnap's open-mindedness in conceiving a boundless ocean of possibilities for constructing logical systems.

Interestingly enough, Wittgenstein rambled with rage in reaction to Carnap's view about the *LSL-TLP* relationship. But unlike Carnap's view, which led to a dominant interpretation of the relationship, Wittgenstein's testimony about the case has been strangely ignored in the history of analytic philosophy. In this paper, I try to make an inquiry about the grounds for Wittgenstein's dissatisfaction with the Carnapian reading of the *LSL-TLP* relationship. I will show that Wittgenstein was not totally unfair in his judgment, and that some salient aspects of *LSL* (recognized as the anti-Tractarian aspects of the work) could be best understood in the light, or rather the gloom, of *TLP*, and bear a significant resemblance to it. This, however, does not need to diminish the logical and historical significance of *LSL*.

Keywords: syntax, grammar, silence, proposition, logical form; convention.

1. Introduction*

The relationship between Carnap's *Logical Syntax of Language* (*LSL*) ([1934] 1937) and Wittgenstein's *Tractatus Logico-Philosophicus* (*TLP*) ([1921] 1922) has been interpreted in several ways during past decades.

We have to deal only with one of these readings in this paper. The assumed reading has been promoted by Coffa (1991) and Awodey and Carus (2009) among others, and has its origin in Carnap's (1934) reading of the main tenets of *TLP*. The interpretation is somewhat dominant over Carnapian studies, and it has two parts:

Firstly, it holds that in *TLP* the possibility of speaking about the logical form of a language within the same language had been foresworn by Wittgenstein, but Carnap proved him wrong by producing a book (*LSL*) written exactly in a manner which had been proscribed by Wittgenstein. This is the *debate about the possibility of speaking about the logical form*.

On the other hand, Wittgenstein's dogmatism with regard to the existence of a unique correct grammar has been contrasted with Carnap's open-mindedness in conceiving a boundless ocean of possibilities for constructing logical systems.

Of course this dominant reading is not the only one. A good example, representing an alternative approach, is presented by Michael Friedman (1999), and it holds that Carnap and Wittgenstein's conceptions of syntax are deeply different; hence their projects do not really interfere with one another: "Carnap's assertion that logical form and logical syntax [as a combinatorial theory of the signs and their relation] are perfectly capable of exact expression has very little to do with Tractarian denial of a similar sounding proposition" (1999, p. 193). Friedman's reading is pleasantly appeasing. But it seems that it is in want of a textual basis, for one thing (see Goldfarb & Ricketts, 1992, pp. 66–98). This reservation aside, Friedman's interpretation, like its alternative, does not leave any room for the possibility of some fundamental convergence between the views presented in *LSL* and *TLP*.

There is little wonder that such a convergence (i.e., even if it did really exist) did not attract much attention: Carnap blurred the grounds by emphasizing the diverging aspects. Wittgenstein's testimony about the case has been mostly, but not universally, ignored by scholars.¹ According to Wittgenstein, in his claim about bypassing the Tractarian borders Carnap suffered from a misunderstood reading of the last sentence (and hence the basic idea) of *TLP*: "That Carnap, when he is for the formal and against the "material mode of speaking" doesn't take a single step beyond me, you know well yourself; and I can't believe that Carnap should have so completely misunderstood the last sentences of the *Tractatus*—and so the fundamental idea of the whole book" (Wittgenstein, [1932] 2004). The dominant interpretation would be assessed against the background of this overlooked Wittgensteinian objection, while the justice of the objection would

be examined, in its turn, according to some textual evidence singled out from the pertinent texts.

2. Two points of disagreement

It is common knowledge that Wittgenstein's *TLP* was welcomed warmly by logical empiricists because, among other things, it proposed a solution for the problem of the cognitive status of mathematics and logic. The logical empiricists had been unable (or unwilling) to contrive an empirical foundation for logic and mathematics, and (unlike Russell) they were also reluctant to yield to any form of Platonism about logical concepts. Wittgenstein relieved them by showing that Logic and Mathematics say nothing at all, and they dwell in neither an empirical nor a platonic sphere:

4.461 Propositions show what they say... tautologies and contradictions show that they say nothing.²

But the propositions, unlike tautologies, do have factual content and represent what is the case. What is the case is *pictured* in the propositions. Both picture theory (which will be explained presently) and its component which, according to Carnap's reading, amounts to making a distinction between "judgments which are true purely because of their formal (logical) structure" and judgments of non-logical sentences which "cannot be recognized from the sentences alone", were criticized and rejected as incorrect by Carnap. Carnap critically described the view in terms of "Wittgenstein's absolutist conception of language, which leaves out the *conventional* factor in language construction" ([1934] 1937, p. 186, my emphasis).

In this reading, putting an absolute distinction between logical and non-logical parts of language has led to an even more seriously erroneous part of Wittgenstein's non-conventional attitude: in the absence of conventional elements, Wittgenstein's overall conception of language carried some uncannily realistic impression. Actually this is the knob of Wittgenstein's *picture theory* of language.

2.1 We picture facts to ourselves.

2.11 A picture presents a situation in logical space, the existence and non-existence of states of affairs.

2.12 A picture is a model of reality.

Language is the picture of a reality: "a proposition determines a place in a logical space" (3.4), and "the totality of propositions is a lan-

guage” (4.001). A language, in its turn, has a form that matches the reality, and has an essence in common with it. In Coffa’s words;

... *Tractatus* had offered a correspondence of meaning, according to which something present in the fact we are trying to depict must also be present in the linguistic object through which we try to depict it. This is true not only locally but also globally; not merely atomic facts, but the world or reality has a form or an essence, and language as a whole, if it is to depict reality, must share that form (1991, p. 269)

The language which takes part in the essence of the reality is the only correct language. It is this “striving after the ‘correctness’” of the logical form, instead of giving in to the temptation of being flooded by the “boundless ocean of unlimited possibilities” which was criticized by Carnap in *LSL* ([1934] 1937, p. xv). In Carnap’s view:

According to another opinion (that of Wittgenstein), there exists only one language, and what we call syntax cannot be expressed at all—it can only “be shown”. As opposed to these views, we intend to show that, actually, it is possible to manage with one language only; not, however, by renouncing syntax, but by demonstrating that without the emergence of any contradictions the syntax of this language can be formulated within this language itself. ([1934] 1937, p. 53)

Therefore, Carnap not only regarded the Wittgensteinian dogmatism as incorrect (and tried to replace it with conventionalism), but also ventured to reject the other part of *TLP* which was about the impossibility of speaking of syntax, by doing the opposite. It was in this context that in their “From Wittgenstein’s Prison to the Boundless Ocean: Carnap’s Dream of Logical Syntax” (2009), Steve Awodey and Andre Carus estimated Carnap’s *LSL* as a successful attempt at by-passing Wittgensteinian barriers. This stands against Wittgenstein’s understanding of the case, who, as I remarked, believed that Carnap’s reading is the result of his misunderstanding of the last sentence of *TLP*. The last sentence held that:

7. What we cannot speak about we must pass over in silence.

3. Carnap’s syntactical enterprise

We do not need to attend to the details of Carnap’s syntactical enterprise in *LSL*. The work is one of the indisputable landmarks in the history

of contemporary philosophy, and there is an intense web of literature woven around it. I will try to depict, however, by a few strokes, a rough sketch of what Carnap did in *LSL*. It begins with some platitudes.

In *LSL*, Carnap set rules of formation and rules of transformation (formulas and the rule of inference which take us from one formula to the other) in order to formulate the syntax of two particularly important types of languages, being called, respectively, “Language I” and “Language II”. A general way for constructing the syntax (a general syntax) of any language is explained as well. Arithmetic has been defined within Language I in a recursive way. A theory of types and the axiom of choice were defined in Language II. Gödel’s arithmetization method was appealed to for talking about the syntax of the language within the borders of the same language (the method works via assigning prime numbers greater than 2, and cube, fourth, fifth, and sixth powers of prime numbers greater than 2 to symbols of language I, i.e., to its variable, positive integers, undefined and defined predicates, and functions) (see [1934]1937, p. 55). In this way “all definitions of pure syntax become arithmetical definitions, namely definition of properties, or relation between numbers” (ibid, p. 57). Thus, in spite of Wittgenstein’s forbiddance, Carnap founded a linguistic system in which the syntax of the language was *expressed* constructively.

But defying Wittgenstein’s absolutist point of view needed more than that. It led to making a non-conventional difference between logical and descriptive sentences ([1934] 1937, p. 186). Wittgenstein’s blindness to the role of conventional elements in setting a distinction between logical and descriptive elements was criticized by Carnap in its turn. Carnap did not have to propose a general way for making a distinction between the logical and descriptive parts of a language; the absolutist point of view had been rebuked by him. It was in the wake of this anti-absolutist view that Carnap promoted the principle of tolerance:

In logic, there are no morals. Everyone is at liberty to build up his own logic, i.e. his own form of language, as he wishes. All that is required of him is that, if he wishes to discuss it, he must state his methods clearly, and give syntactical rules instead of philosophical arguments. ([1934] 1937, p. 52).

Hence he did not suggest any general way for making a distinction between the descriptive and the logical. He proposed, however, some local formal methods for dealing with the dichotomy. Wittgenstein’s distinction between logical and descriptive expressions had been based on what Carnap later named the *material interpretation* of the formal language. Carnap, in his turn, believed that the material part “can be formally represented

and thus be incorporated in the syntax” ([1934] 1937, p. 239). This leads to a remarkable difference. According to some interpretations (Freidman 2009, Kussela 2012), the difference lies at the hub of Carnap-Wittgenstein’s disagreement about the syntax. But we need to know more about Carnap’s formal approach, and the relation that syntax bears to reality, in order to evaluate this interpretation.

Committed to the formal mode, Carnap introduced the distinction between the descriptive and the logical into the vocabulary of *LSL* by attaching a gothic “d” and “l”, respectively, to descriptive and logical functors and predicates ([1934] 1937, p. 18). From this initial distinction on the level of vocabulary, Carnap proceeds to show that a symbol (or a function or predicate which involves it) is descriptive if it is undefined, or if a descriptive symbol is used in the chain of its definition, and it is logical otherwise (Ibid, p. 25). To project this simple definition to Language II and general syntax, Carnap added some other technical terms (i.e. determinate and indeterminate) as well as a semi-semantical concept (i.e. the concept of consequence), to show that sentences which contain only logical signs are determinate.³ ([1934] 1937, see §14, §33, §34f)

From several perspectives it has been shown that Carnap’s formal method, for making a distinction between the logical and the descriptive counterparts of the language, was not working as smoothly as he expected. A problematic aspect of the definition of logicity (and accordingly the differentiation between the logical and the descriptive) has been brought to the light by Creath (1996).⁴ Moreover, as Goldfarb and Ricketts remarked, in his way of articulating the concept of consequence and making a distinction between logico-mathematical and descriptive terms, Carnap, in his meta-language, relied on the bivalent notion of mathematical truth. Consequently, his meta-language was stronger than what was suitable for his conventionalist agenda (Goldfarb & Ricketts, pp. 70–72).

Perhaps Carnap was aware of this specific shortcoming in his formal method. As a matter of fact, even in his semantical period Carnap was modest enough to say that he could not find a satisfactory definition for, or a clear-cut distinction between, “descriptive” and “logical” parts of language.⁵ The defectiveness of the formal method in making the desired distinction, may give rise to some doubts: was Carnap really successful in replacing Wittgenstein’s approach, which took into account the elements of the material interpretation of the formal language as well?

We will come back to this question in the final sections, but for now, it is enough to know that by making a linguistic system in which the syntax of the language is expressed, Carnap killed both birds with a single stone. By

writing a book that expressed general rules for the construction of syntax (and not just a single correct syntax, but any syntax out of the ocean of the innumerable multitude) Carnap broke the ice of silence, and overcame dogmatism. But was Wittgenstein as dogmatic and sullen as depicted in this picture?

4. The pictorial form

Wittgenstein's later philosophical views about mathematics, logic, and grammar (as expressed in his *Lectures 1932–35*, *Philosophical Grammar*, *Philosophical Remarks*, and later in his *Philosophical Investigations*) convey a remarkable dose of conventionalism. Apparently the argument for this conventionalism was simple enough. We take grammar, as well as mathematical and logical rules, to be arbitrary, simply because we cannot find any grounds for justifying them. There might be more convincing reasons for this late conventionalism, but fortunately, as we are not mainly dealing with Wittgenstein's post-Tractarian period, we do not need to be concerned about the scheme of those far-reaching arguments. Coffa believed, however, that there is a "Tractarian aftertaste" in Wittgenstein's middle works (Coffa 1991, p. 270), in which he indicated that "grammar is a mirror of reality" (*Lectures 1930–32*, p. 9) and that "it is not entirely a matter of arbitrary choice". (ibid, p. 8)

But a *pre-taste* of the later inclinations has been lured under the pages of *TLP* as well. We know that, according to *TLP*, "a picture cannot, however, depict its form" (2.172). And since the proof of the resemblance of the picture to its subject is disposed within the form, the inexpressible form cannot help in distinguishing between a pictorial system capable of representing reality and one that cannot do so. Indeed that could be a breeding ground for any kind of unbridled conventionalism. But, according to the advocates of the standard reading, this "does not lead to linguistic conventionalism or Carnapian tolerance" (Coffa, ibid). That is, instead of yielding to the impulse to exercise some tolerance, Wittgenstein gave the dogmatic side of his philosophy another turn of the screw, to indicate that there is only one proper grammar, which agrees, in an *unspoken* manner, with the form of reality. But how does the grammar correspond to the form of reality? The relation between the two is anything but straightforward. Let me explain.

There are phrases included in *TLP* which clearly show that the pictorial aspects of picture theory cannot be understood in terms of photographic resemblances. For example in 4.014 Wittgenstein wrote:

4.014 A gramophone record, the musical idea, the written notes, and the sound-waves, all stand to one another in the same internal relation of depicting that holds between language and the world. They are all constructed according to a common logical pattern.

(Like the two youths in the fairy-tale, their two horses, and their lilies. They are all in a certain sense one.)

The question is what Wittgenstein means by saying that “all are constructed according to a common logical pattern”. According to Schulte:

This quotation shows that the picture character that Wittgenstein is concerned with is not modeled on photographs or sketches. The musical score cannot be interpreted as a photograph of the symphonic sounds. That there is a pictorial relationship between them is established by convention, rules, and practice. The musical notes are in no obvious sense similar to the sounds; in the same sense the youths bear just as little resemblance to their horses or the lilies. (Schulte 1992, p. 54)

There is, however, a deeper sense in “pictorial relation”, hinting at agreement on the point of logical or mathematical multiplicity, which matters greatly in Wittgenstein’s theory:

4.04 There must be as many distinguishable features in the proposition as there are in the situation it describes.

These multiple distinguishable features are the elements shared between the picture and its target. But the multiplicity is a logical or mathematical one, which cannot be expressed in the picture:

4.041. Of course this mathematical multiplicity cannot itself be depicted. One cannot step outside of it when depicting.

But here, the argument holds that mathematical (logical) multiplicity cannot be depicted [within the logical pattern], because depicting it demands stepping outside the logical pattern, which is clearly impossible. The argument takes us straightforwardly to the core of picture theory:

4.121 Propositions cannot represent logical form: it is mirrored in them. What finds its reflection in language, language cannot represent. What expresses *itself* in language, *we* cannot express by means of language. Propositions *show* the logical form of reality. They display it.

Let us mull over the notion of “pictorial form” a bit further. There is no essentially non-conventional relationship between the letters of the word

‘cat’ and the furry mischievous pet snoring in my kitchen, nor is “the cat lolled on the mat” photographically similar to the lolling pose of the creature in the kitchen. But still the propositions are connected to the reality of the world in a fundamental way:

2.15 The fact that the elements of a picture are related to one another in a determinate way represents that things are related to one another in the same way. Let us call this connection of its elements the structure of the picture, and let us call the possibility of this structure the *pictorial form* of the picture. [My emphasis]

2.151 Pictorial form is the possibility that things are related to one another in the same way as the elements of the picture.

But why should the fact that the elements of a picture are related to one another in a determinate way represent that things are related to one another in the same way? I understand that since the relation is unspoken, the question is meaningless from a Tractarian point of view. The resemblance just lies there and it cannot be explained or justified. But, to go back to Schulte’s comment, if the photographic relationship between, say, musical notes and sound waves is established by convention, rules, and practice, why should not the pictorial relation (as a logical form) be set in the same way? In Tractarian terms, nothing can be said in the way of making a distinction between a pictorial form which preserves the reality and one that does not. We saw that Coffa insisted that this does not lead to a form of Carnapian conventionalism. But even he did not propose any positive argument for his claim.

In the coming lines I try to show why a radical form of conventionalism cannot be attributed to Wittgenstein, in spite of his silence in justifying the lore of the pictorial (or logical) form. It does not mean that I can, or even intend to, prove that Wittgenstein was advocating an uncompromising form of realism in *TLP*. As a matter of fact, I think that Wittgensteinian realism could very well comprise a moderate form of conventionalism, just as I happen to think that Carnap’s moderate conventionalism is quite reconcilable to a tolerable form of realism.

5. Wittgenstein’s tolerable realism

In the previous section I asked why should the fact that the elements of a picture are related to one another in a determinate way represent that things are related to one another in the same way? We know that nothing

can be *said* in the way of making a distinction between a pictorial form which preserves the reality and one that does not. Wittgenstein's realism seemed to be radical and yet groundless. Our fortitude mounts afresh, however, when we reach toward some helpful scraps of a more promising way of understanding the situation. In *TLP*, Wittgenstein said that:

4.016 In order to understand the essential nature of a proposition, we should consider hieroglyphic script, which depicts the facts that it describes. And alphabetic script developed out of it without losing what was essential to depiction.

The connection between the hieroglyphic written words and the reality is not merely a conventional correlation. The resemblance is pictorially (even photographically) essential and meaningful. The alphabetic script which evolved out of hieroglyphs, though endowed with higher expressive powers, is much less picturesque. But the essential similarity (concerning mathematically multiple features) between the hieroglyphic script and the reality is inherited by alphabetic script. Alphabetic script was developed out of hieroglyphic notations and it has to be interpreted with regard to the source of its genesis. In this vein, to say that language resembles reality is to say that the logical structure (or grammar) of the language is developed out of the reality, and is influenced by it, through the process of development.

The case of hieroglyphs is supposed to be an illustration, and we should not be carried away too far by it, by assuming that it completely unfolds the intricacies of the theory of objects. Waismann's report of Wittgenstein's comments about the relation between language and reality may be appealed to, however, in order to show that the understanding drawn from the hieroglyphs example is not impertinent. The comments bear no date on them, but obviously Wittgenstein was, at least to some extent, still thinking in Tractarian realistic terms by then. According to these comments, although we should not believe that we can 'find' a rule of inference in the same way as "one can find a tree with a green trunk and red leaves", that is, although "we are not at the mercy of empirical experience" for identifying the rules, yet "the entire system of propositions is applied to reality" (in Waismann, 2003, p. 233). In other words:

the uneasiness which one feels with the expression: 'The rose is identical to red' could make somebody conclude that something is wrong with this expression, which, in turn, means that it somehow does not agree with reality, hence that it is an incorrectly formed expression and that sometimes *reality guides grammar*. (ibid, p. 235, emphasis mine)

In this way, the logical structure of language, the grammar, is mildly *influenced* by reality. This interpretation consists with the illustration of the hieroglyphs in *TLP*, and it does not need to be harshly contrasted with conventionalism. Reality does not rigidly determine the structure of the grammar. The shared essence floats gently all through the veins of the logical structure, but there are alternative junctions which could be chosen for conveying it. The junctions could be dug in arbitrarily different ways, just as alphabetic script could be depicted in any other feasible way, without any considerable loss in the richness of the hieroglyphic inheritance. The conventional elements should not necessarily be eradicated to make room for this refined version of realism which is based on the loose notion of similarity on the point of logical multiplicity. To borrow an example from Schulte (1991, p. 54), an expressionistic portrait may include as many distinguishable features as there are in the face that it describes, and it may possess the right logical multiplicity to reflect a certain mood, but it is not bonded to represent reality in the way that a photograph does. Its colors or even its proportions do not need to correspond to its subject matter.

6. Carnap's bridled conventionalism

What about the realistic aspects of *LSL*?

It is well known that there are parts of Carnap's philosophy in which he declared that appealing to conventions does not mean that the choice of linguistic system is "arbitrary". These parts are usually neglected under the roars of the surges of the boundless ocean, but almost whenever Carnap mentioned "convention" he also spoke about those factual counterparts of the choice which balance the conventional aspects. These factual parts especially matter when we want to go further than mere construction of whimsical automata; that is, when we want to make a language that models the physical world for us. This meager bond to reality was cherished by Carnap throughout all the periods of his work, from *LSL* to the end of his philosophical career. In *LSL* he said that:

The construction of the physical system is not effected in accordance with fixed rules, but by means of conventions. These conventions, namely, the rules of formation, the L-rules, and the P-rules (hypotheses), are, however, *not arbitrary*. The choice of them *is influenced, in the first place, by certain practical methodological 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. ([1934] 1937, p. 320, emphasis mine).

And after three decades he emphasized that:

Factual knowledge is necessary in order to decide which kinds of conventions can be carried out without coming into conflict with the facts of nature, and various logical structures must be accepted in order to avoid logical inconsistencies. (1966, p. 68)

The point is that, thanks to these considerations, the conventional choice is not arbitrary. That is, the choice is guided by something which has some foothold in the factual domain, the domain of the facts of the matter. Yet we should not forget that it is methodological considerations with a practical nature which influence the choice of the rules of formation, and by the same token, these considerations precede the construction of a syntactical system. These considerations, with their priority over the formal rules, and their practical nature, are not *expressible* in syntactical terms. In other words, in his syntactical period, Carnap wanted to pay attention to “the formal theory of the linguistic forms of the language” ([1934] 1937, p. 1); practical methodological considerations somehow fell outside the domain of his study, because the construction of a language, like a formal calculus, does not rely on practical methodological considerations. Nor does language include these considerations.

That the considerations which sew the language into the reality are not expressible in the language is the main common point between the approaches of Wittgenstein and Carnap respectively in *TLP* and *LSL*. Carnap was silent about the relation between language and reality as well, and in a very Tractarian spirit too.

7. Some afterthoughts

Contrasting Carnap’s syntactical approach with some of his post-*LSL* reflections would be useful in providing us with a better understanding of his view about language in *LSL* and the relation between *LSL* and *TLP*.

In *Foundations of Logic and Mathematics* (1939) the question of the conventionality of logic is put forward by Carnap again. In this work, in answer to the question “Are the rules on which logical deduction is based to be chosen at will and, hence, to be judged only with respect to convenience but not to correctness?” (pp. 26–27) he suggested that:

Obviously, the question discussed refers to the rules of an interpreted language, applicable for purposes of communication; nobody doubts that the rules of a pure calculus, without regard to any interpretation, can be chosen arbitrarily. (Carnap 1939, p. 27).

And Carnap is quite right in believing so. No one, Wittgenstein included, had anything against construction of pure calculi in arbitrarily different ways, nor had he anything against the possibility of expressing the syntactical rules of a pure calculus. But what Wittgenstein had in mind, when hinting at the impossibility of speaking about the logical (or pictorial form) had nothing to do with a pure syntax dislodged from reality. The elements of Wittgensteinian syntax or logical form had been primarily (before the formulation of the rules) influenced by the reality, and had some essence in common with it. It was the pictorial form, in the sense of “the possibility that things are related to one another in the same way as the elements of the picture”, which could not be expressed in language. In this sense, Friedman was right to suggest that Wittgenstein and Carnap’s conceptions of syntax are deeply different; hence their projects do not really interfere with one another. The former understood syntax in terms of a language which has been etched with fixed interpretations, while for the latter it is presented in its pure form. But on some deeper level Carnap’s and Wittgenstein’s conceptions of language, if not of pure syntax – because even Carnapian syntax is influenced by reality via some practical methodological considerations which could not be expressed within the language, just like Wittgensteinian logical form, which stitched language to reality – could not be expressed within the borders of meaningful language. Of course later (from 1939 onward), Carnap came to acknowledge that syntax could be baptized to become a language only after being interpreted in some definite way, by the addition of semantical, and perhaps even pragmatic, rules. The interpretation could take place, equally legitimately, before or after the construction of the system. Thus, Wittgenstein’s approach, in which the “‘meanings’ of logical signs are given before the rules of deduction are formulated”, was recognized by Carnap as legitimate in later stages of his career (see Carnap, 1939, p. 27). But as the seeds of later semantical advances are cultivated even in the syntactical soil of *LSL*, the resemblance between Carnap and Wittgenstein’s approaches comes to the light.

It is not just the “inability to justify grammar” that makes Wittgenstein’s thesis resemble Carnap’s. The resemblance goes deeper than that. In spite of all of their deep differences, they took similar measures in claiming that reality influences the construction of language through some unspoken factors. And the detailed examination of their works in the previous pages proves this point.

Wittgenstein was not totally unfair in his judgment about the resemblance of *LSL* to what he himself did in *TLP*.

N O T E S

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¹ There are, however, interesting works in more recent literature, such as Kuusela, Oskari (2012) “Carnap and the *Tractatus*’ Philosophy of Logic”. *The Journal for the History of Analytical Philosophy* 1 (3), which are paving the way for the emergence of fairer accounts of the relation. The present paper is another step on this way.

² The phrases that are numbered in this way are quoted from *TLP*.

³ “But if we reflect that all of the connections between logicomathematical terms are independent of extra-linguistic factors, such as, for instance, empirical observations, and that they must be solely and completely determined by the transformation rules of the language, we find the formally expressible distinguishing peculiarity of logical symbols and expressions to consist in the fact that each sentence constructed solely from them is determinate”. (Carnap 1937, 177)

⁴ He showed that if we take logical vocabulary as the intersection of maximal classes such that everything sayable in them is determinate (as Carnap took them to be (1937, pp. 177–178)), for some examples the intersection of the maximal classes would finally turn out to be empty! On the other hand, if we want to say that certain predicates or variables were problematic in this definition of logicality because they were originally descriptive, it appears that completeness or determinateness in some domain is no guarantee of logicality [because they are “determinate” descriptive phrases which are not logical] (1996, pp. 258–259).

⁵ “[in general semantics the question is] whether and how ‘logical’ and ‘descriptive’ can be defined on the basis of other semantical terms, e.g. ‘designation’ and “‘true,’ so that the application of the general definition to any particular system will lead to a result which is in accordance with the intended distinction. *A satisfactory solution is not yet known.*” (Carnap 1942, p. 59, the final emphasis is mine).

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