How is Logical Analysis Viable?

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Abstract

The idea and the actual exercises of *logical analysis* as a philosophical method are at the heart of the emergence of *analytic philosophy* in the beginning of the 20th century. Although analytic philosophy is most commonly said to emerge with the critique devised by G. E. Moore and Bertrand Russell of the then-dominant idealist currents of philosophy in Britain, the central conception of analysis at work in this process is not the dominant traditional conception of analysis as decomposition of concepts, but a fairly new, distinctive conception which we find to be exemplified exclusively in Frege's and Russell's works (specifically Frege 1879, 1893 and Russell 1905). This distincive conception has been specified under a few various rubrics, such as *paraphrastic* or *transformative-interpretive* analysis, to separate it not only from the decompositional but the *regressive* conception as well, the latter characterizing the analysis-synthesis method of ancient Greek geometry. The present paper first locates logical analysis (as a philosophical method) in this picture, by proposing to define it as a definite kind of paraphrastic (or transformative/interpretive) analysis, the kind where the language in the *analysans* position is a *logical* language. The paper highlights the fact that the whole point of analyzing natural language forms by means of translating them into a logical language is essentially solving problems of inference – i.e. determining whether certain natural language sentence types follow from/contradict with/ entail certain others, and shows that this particular conception of analysis is not as self-consistent a notion as it may first seem to be. The key to the argument is the undeniable connection between the meaning (at large) of a sentence form and the principal inferential relations that the sentence form is *supposed* (pre-analytically) to enter into with other related forms. The argument employs as a clear example the common modern logical analysis of the so-called problem of existential import of traditional categorical forms in order to problematize the viability of logical analysis, and concludes that one of the necessary conditions of the self-consistency (viability, possibility) of logical analysis is the acceptance of a certain negative thesis about *meaning*.

Keywords: Analytic Philosophy, Logical Analysis, Logical Language, Meaning, Inference

Mantıksal Çözümleme Nasıl Mümkündür?

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Öz

Bir felsefi yöntem olarak *mantıksal çözümleme* fikri ve bunun fiili uygulamaları, *analitik (çözümlemeli) felsefenin* 20. yüzyıl başlarındaki ortaya çıkışının kalbinde yer alır. Her ne kadar en sıklıkla dile getirilen görüş analitik felsefenin G. E. Moore ve B. Russell'ın kendi dönemlerinde Britanya'da hakim olan idealist akımlara getirdikleri eleştiri ile ortaya çıktığı şeklinde olsa da, bu süreçte işlerlikte olan çözümleme anlayışı, çözümlemeyi esasen kavramların çözümlenmesi olarak anlayan hakim ve geleneksel *ayrıştırmalı (decompositional)* anlayış değil, özellikle G. Frege ve B. Russell'ın çalışmalarında (Frege 1879, 1893 ve Russell 1905) örneklendiği görülen görece yeni, ayrı bir çözümleme anlayışıdır. Bu anlayış, onu yalnızca ayrıştırmalı anlayıştan değil ama İlkçağ Yunan geometrisindeki 'analiz-sentez' yöntemini niteleyen *geriye götürmeli (regressive)* çözümleme anlayışından da ayırt etmek için *tefsirci (paraphrastic)* veya *dönüştürücü-yorumlayıcı (transformative-interpretive)* çözümleme gibi başlıklarla anılır. Bu çalışma, öncelikle, (bir felsefe yöntemi olarak) mantıksal çözümlemenin bu resimdeki yerini belirlemek için onu tefsirci (dönüştürücü-yorumlayıcı) çözümlemenin belli bir türü – çözümlemede *analysans (çözümleyen)* konumundaki dilin bir *mantık* dili olduğu türü – olarak tanımlamayı önermektedir. Çalışma, doğal dil biçimlerini, onları bir mantık diline tercüme ederek çözümlemedeki asıl gayenin çıkarım sorunlarını çözmek – yani, belli doğal dil cümle tiplerinin diğerlerini mantıksal olarak izleyip izlemediği/onlarla çelişip çelişmediği/onları getirip getirmediği gibi sorunları çözmek – olduğunun altını çizmekte ve bu çözümleme anlayışının göründüğü kadar kendinde tutarlı bir mefhum olmayabileceğini göstermektedir. Savununun anahtarı, bir cümle tipinin (geniş olarak) anlamı ile o cümle tipinin ilgili diğer cümle tipleriyle girdiği (çözümleme öncesinde) *kabul edilmiş* olan çıkarımsal bağıntılar arasındaki reddedilemez bağlantıdır. Savunu, açık bir örnek olarak geleneksel kategorik cümle biçimlerinde (güya) bulunan varoluş yükü sorununun yalınlaştırılmış bir versiyonunu kullanmakta ve mantıksal çözümlemenin iç tutarlılığının (imkanının) gerek koşullarından birinin, *anlam*la ilgili belli bir değilleyici savı kabul etmek olduğunu göstermeye çalışmaktadır.

Anahtar Kelimeler: Analitik Felsefe, Mantıki Çözümleme, Mantık Dili, Anlam, Çıkarım

Introduction

The safest point to take as the beginning of 20th century analytic philosophy may be Bertrand Russell's 'On Denoting' (Russell 1905), which not only triggered discussions and analyses concerning, specifically, the logic of descriptions or descriptive phrases, but constituted a 'paradigmatic' (Ramsey 1931, p. 263n), concrete instance of how the 'new' type of philosophy was to be exercised. What Russell did in his seminal paper was to show that definite descriptions, i.e. descriptions of the form 'The F', which 'naturally' and traditionally fall into the category of singular terms, are not in fact logically simple and innocent like singular terms, and this he showed by means of translating the principal sentence types in which definite descriptions typically occur into the formal language of the new logic founded by Frege's *Begriffsschrift* (van Heijenoort 1967, p. 1-82).

The kind of analysis given by Russell was quite distinctive: it did not rely on a verbal *decomposition* of a given concept into its intensional constituents – as in the decomposition, say, of the concept Body yielding Extension as one of its genera or differentiae – nor could it be simply considered a variant of the *regressive* conception of analysis covered by the ancient Greek geometers' method of *analysis-synthesis*. The essential part of the analysis consisted of translation into an analyzing language, a language which was solely supposed to be in the position of giving the final judgment of every semantical, nay metaphysical problem/question. This translation may be seen as a transformation/interpretation of a certain collection of sentential forms of a certain language into the forms of another language, possibly with a quite dissimilar logical syntax – in a word, *paraphrasis*.

Thus, the kind of analysis exercised by Russell (and arguably by Frege before him), most securely called *logical analysis*, is a distinctive kind of paraphrastic analysis that employs as analyzing language a *logical* language, in this case the language of modern first-order quantificational logic, based on the new logic (or logical calculus) founded by Frege in his *Begriffsschrift*, following Leibniz's ideal of a *characteristica universalis*.[1] The following sections of the present paper argue that logical analysis in the abstract is viable only with commitment to a bold negative thesis about meaning, viz. that inferential relations do not contribute to the formation of meaning, and then exhibit the point by means of a simplified version of the modern logical anal-

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1   For Leibniz's statements of this ideal and his studies on logical calculi toward this goal, see the articles in G. H. R. Parkinson's edition (Leibniz, 1966).

ysis of the problem of *existential import*, before concluding with a note on a healthier alternative as to the conception of logical analysis.

1. Locating Logical Analysis

Three distinctive conceptions of analysis (at large) seem to set the scene for our discussion. Michael Beaney's seminal work (Beaney 2002) on the different conceptions of analysis at work in the emergence of 20th-century analytic philosophy is directive in this respect, although it employs a distinction between *modes* and *conceptions* of analysis which complicates matters for our discussion (not, of course, for his account), where each of the three main conceptions is characterized by one of the three modes, but each conception can be 'modified' by the contribution of the two other modes that do not characterize it.

So, regarding only the conceptions at large, and leaving out the details of the matter about various inclinations to other conceptions that a conception can have in some instances – which Beaney captures by means of his 'modes' (Beaney 2002, p. 54) – we can safely state the presence of three main conceptions of analysis in the history of Western philosophy: (1) the *regressive* conception, represented in the ancient geometer's analysis-synthesis methodology; (2) the *decompositional* conception, represented in many significant stops in the history of philosophy such as the Socratic-Platonic theory of definition and the (so-called) method of *division*, the Aristotelian conception of (true) essential propositions, Leibniz's *predicate-in-the-subject* definition of truth, and Kant's conception of analytic judgment, among others; and finally (3) *paraphrastic* (or as Beaney calls it, "interpretive/transformative") analysis, which most clearly finds representation in Leibniz's ideal of a universal formal language that can exhibit and enable philosophers to solve genuine philosophical problems by *calculation* instead of verbal discussion, and in – as Beaney also affirms (Beaney 2002, p. 69) – Russell's 1905 article, with which analytic philosophy began in the full sense. Thg

Now the ancient geometer's conception of analysis in essence is the idea of a method or methodological procedure in which geometrical problems or questions are solved by reducing or 'leading them back' to problems/questions that have already been solved (i.e. whose solutions are presently known) (Beaney 2002, p. 58). So unlike the later Kantian view (*KRV* A 6-7, B 10-11; Beaney 2002, p. 66) that analytic cognition is repetitive and at best clarificative but not ampliative, the ancient geometer saw in what s/he called 'analysis' a procedure of discovery (hence an ampliation of knowledge), and in synthesis a repetitive, reconstructive procedure. Descartes might be right

in his criticism that the ancients actually presented no analyses, but only the synthetic, reconsructive phase of their method where they showed how their solutions of the simpler problems/questions were translated back into a solution to the original problem/question.[2]

That is why Descartes presents his algebraization of geometry as analysis, since he believes that the algebra of geometry constitues a pool where every kind of possible geometrical transformation, construction or dependence could be extracted via algebraic equations. But what is much more important for our discussion is that the regressive conception, whether Descartes is right or wrong about its ancient exercises, exemplifies how one of the three main conceptions of analysis can be modified by a mode of analysis characteristic of another conception – in this case, the regressive conception of analysis modified by the transformative mode characteristic of the paraphrastic (or interpretive/transformative) conception. The transformative mode, or simply paraphrasis, is like a proprium of Cartesian analysis, since the key phase thereof is the algebraic paraphrase of spatial relations, i.e. rewriting of these relations in the language of algebra.

However, what concerns our discussion is the simpler, easily traceable distinction between the dominant and classical decompositional conception of analysis, and the novel paraphrastic conception that is actually at the heart of the emergence of analytic philosophy through Frege's and Russell's work. The reason why no history of the emergence of analytic philosophy can ignore Frege's mathematical program is that analytic philosophy began with a novel conception and a novel kind of 'organon' of analysis: logical analysis, as a species of paraphrastic analysis, and an expressively strong mathematical-logical language, the logical language of first-order quantificational theory. The *function-argument* framework imposed by this new logical language makes it syntactically dissimilar to natural languages which mostly favor the *noun-verb* framework. And this makes this new logical language a better candidate for *target language* – for *analysans* – in the paraphrastic analysis of a philosophical/logical problem. But it is also a *logical* language, i.e. an artificial language which is exclusively employed to exhibit and test *consequence* (i.e. logical following) or *inference*. This completes the picture: the kind of paraphrastic analysis where the target language is a logical language in the above sense is the kind of analysis that characterizes analytic philosophy in its emergence.

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2   For Descartes's criticisms of and developments on the analysis-synthesis method in detail, see ch. 3 (pp. 72-102) of Gaukroger 1989.

In a word, the 'analysis' hinted at the title 'analytic philosophy' means (or had better mean) logical analysis as a philosophical method. This makes Moore's role in the emergence of analytic philosophy rather dubious, as some commentators agree (Bell 1999). Moore, who was with Russell againts the British neo-Hegelians or idealists, but still exercised philosophy according to the classical 'continental' decompositional conception of analysis (Beaney 2002, p. 77-78)[3] might not be in the real picture, but Frege, who were actually concerned mainly with the logicist program (and hence, the logical analysis of arithmetical concepts), but invented the new logic that would be put to use in paraphrastic analysis of philosophical problems – exemplified originally with Rusell's theory of (definite) descriptions – was there with Russell.

2. The Question of Inference in Russell's 'On Denoting'

Russell's 1905 *Mind* paper 'On Denoting' has been acclaimed as a paradigmatic instance of analytic philosophy, more specifically of the new way of philosophy as logical analysis-solution of philosophical problems. The paper essentially deals with the correct logic of descriptions with a focus on the *definite-indefinite* divide – hence may be considered to deal with the logic of the definite article 'the' – but we could detect at its core a question of inference, namely, whether we could (should) infer from the negation of an affirmative predication with a descriptive phrase as subject the affirmation of the corresponding negative predication – schematically, from the negation of 'The F is G' the affirmation of 'The F is not G'. The solution to this abstract question by means of logical analysis finds immediate application in the solution of some of the central traditional problems around the idea of *empty terms*, terms without extension (or having the empty set as their extension).

Very roughly, Russell regiments the natural (and traditional) definite descriptive form 'The F is G' as

$$(\exists x)(Fx \mathrel{\&} (y)(Fy \to x = y) \mathrel{\&} Gx)$$

i.e. as 'There is at least and at most one item that is (an) F, and that item is (also a) G', where especially the nominal phrase 'The F' in isolation finds no exact correlate, which is perfectly consistent with the idea of a *paraphrastic* analysis. But the key idea here is that a predication of the form 'The F is G' covers a uniqueness, *hence* an *existence* claim, $(\exists x)Fx$, which might and does fail for some choices for 'F', since this is where the decision made by

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3   See Moore 1899; but esp. Moore 1903 for his views on the connection between conceptual *simplicity* and analysis in the context of the discussion about defining *the Good*.

the analyzing language as to the inferential significance of the form 'The F is G' depends.

The decision in traditional parlance is that the forms 'The F is G' and 'The F is not G' are not contradictories but only contraries, against chs. 6-7 of Aristotle's *On Interpretation* where opposed singular predications should always yield a contradictory, not a contrary pair (Aristotle 1963, p. 47). The terms 'contradictory' and 'contrary' may not be able to speak for themselves, but the way Aristotle defines and employs the inferential relations signified by them (Aristotle 1963, p. 48) suggest that they may be characterized by the following couples of sequents:[4]

Contradiction:

$\Phi \mid- \neg\Psi$

$\neg\Phi \mid- \Psi$

Contrariety:

$\Phi \mid- \neg\Psi$

$\neg\Phi \mid\!-/\!- \Psi$

Obviously, the possibility of the absence of any Fs makes it that the falsity of 'The F is G' ('The F is not G') cannot prove the truth of 'The F is not G' ('The F is G'). And this solves the philosophical question of how to determine the truth-value of a predication where the 'subject' term is a definite but empty description: simply, 'The F is G' and 'The F is not G' are both false when 'F' is empty. So we do not need to go any more with Frege to say that affirmative as well as negative predications made of empty terms are all meaningless on the grounds that the 'subject' term lacks referential value. They are meaningful, but all false, thanks to the implicit false existence claim each containing as a conjunct, which becomes explicit only with an analysis of the kind above.

This is, of course, a paradigm instance of analytic philosophy in the sense of making philosophical decisions by means of logical analysis, in line with Leibniz's 'from *discimus* to *calculemus*' picture of his ideal: the philosophical problem is solved by translating the relevant forms into a logical calculus,

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4   For the sake of simplicity in the representation, we assume *contraposition* and a law of double negation for affirmative and negative sequents, thereby validate the *converses* of the sequents.

where either the problem evaporates altogether or is reduced to a simple calculation problem – in this case, to the simple calculation in the language of modern logic of the truth-value of sentences of the form 'The F is G' where 'F' lacks actual instances, yielding *false* for each.

3. Logical Analysis, Synonymy and Inferential Order

However, there is a certain element necessarily found in every kind of paraphrastic analysis that can pose a challenge specifically to the idea of a logical analysis, namely the requirement of synonymy between the *analysans* and *analysandum*. Contrary to appearances, the problem is not a simple instance of the general, abstract problem – if it ever is – known as the 'paradox of analysis'. The so-called paradox of analysis is nothing more than a 'light' sophistry, concluding that every piece of analysis corresponds to the cognition of a proposition of identity or equivalence, thus every analysis is necessarily uninformative (or in Kantian terms, *repetitive*).[5] The problem about logical analysis, on the other hand, though it is strongly connected with synonymy, concerns particularly the connection between the *meanings* of, and the *inferential order* among, the forms to be translated in the course of logical analysis.

Now, paraphrastic analysis in the abstract does not necessarily involve the employment of a logical language as the analyzing (or target) language, and it is the *differentia* of logical analysis that it does so. The point of employing a certain logical language in philosophical analysis can only be either that (i) the language has a primary position in some hierarchy of languages, such as that unlike natural languages, it is somehow isomorphic to reality or to the cognition of reality; or that (ii) it enables us to exhibit and test logical (i.e. consequential) or inferential relations among the forms of the language analyzed. In other words, the reason for its employment is either that it has some propriety other than logicality which makes it preferable to alternatives in analysis, or simply that it is a logical language. Russell at times, and Wittgenstein in the *Tractatus*, inclined towards the first option when they spoke of things like the structure of reality, mirrored in the syntax and grammar of the perfect, ideal language;[6] however, the 'metaphysical correctness' has not been the primary reason for the employment of modern logical languages in philosophical analysis. The primary reason is of course their ability to exhibit and test pre-analytically supposed inferential rela-

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5   For the details of what we prefer to call a 'light sophistry', see Myers 1971.

6   See Peter Hylton's chapter, "Ideas of a Logically Perfect Language in Analytic Philosophy", esp. the first section, in Beaney 2013: 907-925.

tions between given sentential forms, which (by definition) cannot be done in a *non*-logical language.

And the problem here is the determination of the grounds of a proposed scheme for translating the (unanalyzed) forms of a language into a logical language. What should be the grounds? In particular, how should the presupposed inferential significance, if any, of a natural-language sentential form interact with its logical translation? In trying to formulate an answer, one might feel the presence of a paradox – a paradox of logical analysis? – but this is just a feeling. The answer is, as the following paragraphs try to illustrate, that logical analysis as a species of paraphrastic analysis is viable only if either the semantic relation between the *analysans* and the *analysandum* is not to be synonymy, or that inferential significance (or inferential import) has no active role in the constitution of meaning.

The point may be presented and advanced through an examplary piece of simple logical analysis, the analysis of existential import (which actually is closely related to the empty terms problem mentioned above) of universal categorical forms in relation to the corresponding particular categoricals.[7] As is well known, Aristotle validates certain a certain inferential (or consequential) order among the four basic types of predication, dubbed later *the square of opposition* (Kneale & Kneale 1972, p. 55). The square relations can, as in the above, be specified or characterized by means of couples of sequents of a certain type, each sequent acting as a rule of inference. We present the remaining two inferential relations in the square, and list the categorical exemplifiers of each of the four:

Subalternation:

$\Phi \vdash \Psi$

$\neg\Phi \nvdash \neg\Psi$

Subcontrariety:

$\Phi \nvdash \neg\Psi$

$\neg\Phi \vdash \Psi$

Contraries: Every S is P—No S is P.

Contradictories: Every S is P—Not every S is P, No is P—Some S is P.

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7   A common presentation of this analysis can be found in Kneale & Kneale 1972: 56 sq.

Subcontraries: Some S is P—Not every S is P.

Superaltern-Subaltern: Every S is P—Some S is P.

Now, modern first-order logic invalidates this inferential order under the standard translation scheme which maps traditional universal categoricals to universally quantified open conditional formulæ and particular categoricals to existentially quantified open conjunctive formulæ:

Every S is P: $(x)(Sx \rightarrow Px)$

No S is P: $(x)(Sx \rightarrow \neg Px)$

Some S is (not) P: $(\exists x)(Sx \mathbin{\&} Px)$

Some S is not P: $(\exists x)(Sx \mathbin{\&} \neg Px)$

These forms do not satisfy (instantiate) the relations that form the *sides* of the square, namely, the relations of Contrariety, Subcontrariety and Subalternation. (Actually, validation of only one of these relations would guarantee the other two, thanks to the diagonal tokens of Contradiction.) In particular, the first-order translation of a universal categorical is not a *superaltern* of the first-order translation of the corresponding particular. This of course has immediate consequences in the syllogistic theory, such as the invalidation of moods that arrive at a particular categorical from a couple of universal categoricals, such as Darapti and Felapton in the third figure; but modern analysis does not stop short at this invalidation. It deepens the analysis by showing what is implicitly assumed by Aristotle or Aristotelian logic in order that the square and the related syllogisms fully work, namely, the existential import of (syllogistic) terms, specifically those that occupy at least once the subject term position.

The story told by the analysis goes: for every syllogistic term that can occupy the subject position in a categorical proposition, it is assumed by Aristotle (Aristotelian logic) that it is not empty, i.e. that it has at least one member in its actual extension. This type of assumption finds a perfect correlate in the language of the first-order quantified logic in the form of an existential quantification over a unary predicate that represents the syllogistic term in question, say 'Mx'. So the Aristotelian logician, when putting down the premises, for instance, of Darapti, slips the assumption $(\exists x)Mx$ in the premises. Let us represent simply how the assumption restores Darapti's validity:

Darapti: *(x)(Mx → Px)*, *(x)(Mx → Sx)* |− *(∃x)(Sx ⅋ Px)*

Proof:

1. *(x)(Mx → Px)*   [Premise]

2. *(x)(Mx → Sx)*   [Premise]

3. *(∃x)Mx*   **[1 or 2, non-emptiness]**

4. *Ma*   [3, ∃-elim]

5.*Ma → Pa*   [1, ()-elim]

6. *Ma → Sa*   [2, ()-elim]

7. *Pa*   [5, 4, →-elim]

8. *Sa*   [6, 4, →-elim]

9. *Sa ⅋ Pa*   [8, 7, ⅋-intro]

10. *(∃x)(Sx ⅋ Px)*   [9, ∃-intro]

Now we have two things to say about this analysis, one specific to it, the other more general and more to our point. First, the analysis does *not* show that *(∀x)Mx* is the *necessary* supposition – it only shows that it is sufficient. But it is perfectly clear that the job then could be done alternatively by, e.g., *(x)Mx* or by *Ma ⅋ Pa* or by *Ma* itself. Specifically, here *Ma* seems to be the only required assumption, and it does not say that *M*s exist but just that (some chosen) *a* is *M*. Thus the analysis does not show that the non-emptiness assumption is *required* for the square to work.

Secondly, more to our point, even if the non-emptiness assumption were required and not just sufficient, this would not show that it was implicitly present in the Aristotelian philosopher's/logician's thinking. For the Aristotelian thinks of the universal affirmative categorical, not only as the contradictory of the corresponding particular negative, but also *as the contrary of the corresponding universal negative* and *the superaltern of the corresponding particular affirmative.* (Same holds *mutatis mutandis* of the other forms.) Generally, in a not-too-unordinary sense, the inferential order provided by the square relations contributes to the traditional meaning of each categorical sentential form, so that the relevant quantified forms *cannot* be the translations of the traditional categoricals. But then the non-emptiness assumption is required only for the modern logician to provide the inferential potency of Aristotelian universal categorical forms, specifically the universal affirma-

tive form, not for the traditional logician – since the assumption has nothing to do with traditional categoricals.

Here we can extract a necessary condition for the viability of logical analysis as a species of paraphrastic analysis: in order for the logical analysis of a philosophical problem to be viable, *it must rejected that inferential potency contributes to meaning*. This is a significant condition, for 20th century philosophy and formal science introduced to us much stronger versions of the idea, especially through the works of Gerhardt Gentzen, Wilfrid Sellars, and Robert Brandom. Gentzen's proposal[8] to view the basic inferential rules given for propositional connectives in the form of *introduction* and *elimination* rules – specifically the former – in his natural deduction calculi as *defining* the relevant connective as giving to us whatever has to be known as to its meaning, initiated *proof-theoretic semantics* (Schroeder-Heister 2023). Sellar's insistence on the role of inferential norms, specifically material inferential norms in the construction of the empirically relevant and sensitive web of linguistic meaning (Sellars 1953) is translated by Brandom (Brandom 1994; 2000) into a whole *inferentialist* philosophy of linguistic meaning according to which linguistic meaning at the level of the subsentential – e.g. meaning of names, verbs etc. – is an abstraction from sentential meaning which in turn is constituted by the web of inferential relations or 'norms', covering not only judgment-to-judgment inferences but also 'inferences' from perception to judgment and from judgment to action.

Since the idea that inference determines, or at least contributes to the constitution of, meaning is not a marginal, weak alternative conception, and since the very point of logical analysis is exhibiting and testing the *pre-analytically supposed inferential order* among a range of sentential forms by *translating* these forms into the language of a logical calculus, it is not a vacuous statement that the acceptance of an anti-inferentialist conception is a necessary condition of the viability (possibility, if you will) of logical analysis.

Is there a way out for the original conception of logical analysis, other than anti-inferentialism? After all, logical regimentation of the basic forms of sentences of ordinary language characterizing a specific discourse in which philosophical questions/problems arise – such as the ordinary modal discourse – is still a viable method, especially for problems directly related to ontology and philosophy of mind. So maybe there is a way out; in other

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8   In his 1934 paper "Untersuchungen über das logische Schliessen" for *Mathematische Zeitschrift,* an English translation of which can be found in Gentzen (1969): 68-131.

words, maybe the *apparent* viability of logical regimentation (or of logical analysis at large) is due to an indifference on the contemporary analytical philosopher's part to the requirement of *synonymy* between the *analysans* and the *analysandum*. W. V. O. Quine, in the context of a discussion of a particular type of philosophical-logical analysis concerning the ontological decisions made by a mathematical theory, makes the following remark in the abstract:

> We do not claim synonymy. We do not claim to make clear and explicit what the users of the unclear expression had unconsciously in mind all along. We do not expose hidden meanings, as the words 'analysis' and 'explication' would suggest; we supply lacks. We fix on the particular functions of the unclear expression that make it worth troubling about, and then devise a substitute, clear and couched in terms of our liking, that fills those functions. (Quine, 1960, p. 238)

And in another discussion about the logical regimentation of ordinary-language sentences, he says:

> So we see that paraphrasing into logical symbols is after all not unlike what we all do every day in paraphrasing sentences to avoid ambiguity. The main difference apart from quantity of change is that the motive in the one case is communication while in the other it is application of logical theory.

> In neither case is synonymy to be claimed for the paraphrase... If we paraphrase a sentence to resolve ambiguity, what we seek is not a synonymous sentence, but one that is more informative by dint of resisting some alternative interpretations. (Quine, 1960, p. 145)

We can read these words of Quine as a way out for 'the' notion of logical analysis in the sense mentioned above. Under this interpretation, the logical regimentation of a sentential form of ordinary language is not a *translation* into a logical language, but rather a *substitution*, made within the confines of an extension of ordinary language, an extension obtained by the addition of the (relevant) logical expressions. (This is why Quine likens logical regimentations into everyday 'paraphrases' we make *within* ordinary languages.)

So under this interpretation, logical analysis as a philosophical method employs logical regimentation, i.e. replacement of an unclear form of expression in a given language with an inferentially manipulable and testable form of expression in an extension of that language. The point of such re-

placement is of course to manipulate or test the presupposed inferences in a certain part of ordinary discourse, or construct them anew (if there are no definite presuppositions around.) Thus logical analysis can be re-conceptualized as a method of therapeutic (or corrective) clarification by means of reinforcing the original language in which philosophical questions arise with logical calculi. And if we decide to agree with Quine's above views, therapeutic clarification can require disregarding certain presupposed inferential relations without denying inference's contribution to meaning at large and in the abstract.

Conclusion

We tried to show that one of the core ideas active in the origination of modern analytic philosophy, the idea of logical analysis as a species of paraphrastic analysis, actually imposes on the philosopher a certain negative thesis about *meaning*, viz. that there is no meaning-constitutive role of inferential relations. However, in view of the development of forceful alternative conceptions of meaning in the 20th century that give a central place to inference, a negation of this level of generality is too hard to accept as is. And it is avoidable as well. Quine's 'reminder' that philosophical analysis by means of a logical language can (and does) employ logical regimentation without subordination to the synonymy requirement seems to be in conformity both with actual exercises of logical analysis and with alternative conceptions of the connection between meaning and inference. Logical analysis, under this interpretation which better captures its constructive (or creative) side as well, moves further away from the classical decompositional conception, which happens to be called 'analysis' but has nothing specific to do with the emergence of analytic philosophy.

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