

CORRESPONDENCE AND MEANING. ARISTOTLE, WITTGENSTEIN'S *TRACTATUS* AND THE SEMANTIC HOLISM

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Abstract The birth of philosophy of language, the progresses of logic, those of linguistic sciences and the “linguistic turn”, since the beginning of twentieth century, have given new energies to the studies on the relation between ontology and semantics, but this question is much more ancient. The contemporary correspondence theory of truth could be regarded as produced under Russell's and Wittgenstein's influence, but the influence, actually, comes foremost from Aristotle, because the correspondentist view of the *Tractatus Logico-Philosophicus* is almost a repetition, in modern terms, of the logical-linguistic Aristotelian ontology. As a matter of fact, the Aristotelian shape of Frege's theory of proposition influenced both Russell's logical atomism and the view of the young Wittgenstein. This does not mean that Aristotle was an analytic philosopher *ante litteram*, but that the similarity between world and language was deeply studied and employed long before the linguistic turn. Following both Aristotle and Wittgenstein, the fundamental idea at work is that our ontology has the same structures of our verbal language. This thesis raises more problems than it seems at first glance.

Keywords: Ontology, Semantics, Correspondence, Truth, Meaning, Holism.

1. Introduction: *omomorphism between language and reality*

How to analyze in philosophy the enigmatic but interesting relation between ontology and semantics? The birth of philosophy of language, the progresses of logic, those of linguistic sciences and the “linguistic turn”, since the beginning of twentieth century, have given new energies to such a research, but this question is much more ancient. Platonic and Aristotelian doctrines are the points of arrival and the settlement of a tradition which has studied the problem and, just with Plato and Aristotle, has created the first fundamental conceptual devices to face the question. From a certain point of view, Aristotle's ontology, in continuity with Platonic thought, is *wholly* a semantic ontology. In a systematic and pervasive way the Stagirite consciously does study the structures of the world – of the being – analyzing the structures of verbal language. Hence the philosophical reflection on nature becomes also the reflection on how the language works and on how the language organizes knowledge. It is possible to give a lot of examples. In *Metaphysics* Aristotle plans the study about the being saying often that it has mainly four “meanings”. In this way, the Aristotelian ontology appears to have a deep linguistic character, and it is not necessary to wait the linguistic turn and the analytic philosophy to have a theory on the reality grounded on linguistic structures. If we analyze the four meanings of being pointed out by Aristotle, we see that this onto-linguistic *entanglement* (to use a quantum metaphor) is confirmed.

The first meaning of the being is the being as “true” (and the not-being as “false”), then Aristotle refers to a semantic quality of the sentences. The second meaning is the being as “per se” being, as distinguished from “accidental” being; this distinction does hide the logical-linguistic distinction between subject and predicate, but also the question of the inclusion or the exclusion of the characters of the things in their logical definition. The third meaning refers to the doctrine of categories. This Aristotelian theory, I believe, is the most indicative of the “coalescence” between ontological and linguistic structures. The categories are the most general kinds of predication: they contain all the possible predications of the substance-subject, which is the concrete support of the *πρᾶγμα*, the real “fact”. It is clear that in this doctrine the reality is interpreted as a cluster of facts or

events and that the single facts are conceived as compositions of substances (objects) with their accidental features, as well as the linguistic propositions (sentences) are conceived as compositions of subjects-substances with predicates. The fourth meaning of the being is the being as “act”, distinguished from the not-being (the not-still-being) as potency. This meaning synthesizes the Aristotelian doctrine of becoming, in which the structure “subject of changing + changing predicates” is again derived from the structure of the linguistic proposition subject+predicate.

In this simple and fleeting summary the reader could notice some Wittgensteinian influence, but the influence, actually, comes foremost from Aristotle because the correspondentist view of the *Tractatus Logico-Philosophicus* is a repetition, in modern terms, of the logical-linguistic Aristotelian ontology. As a matter of fact, the Aristotelian shape of Frege’s theory of proposition influenced both Russell’s logical atomism and the view of the young Wittgenstein. This does not mean that Aristotle was an analytic philosopher *ante litteram*, but that the similarity between world and language was deeply studied and employed long before the linguistic turn. Following both Aristotle and Wittgenstein, the fundamental idea is that our ontology has the same structures of our verbal language. This thesis raises more problems than it seems at first glance. I suspect that the construction of the ontology, on the basis of the study of (syntactic/semantic features of the sentences of) language, was a natural and somehow necessary attitude for the ancient thought. This is the operation which is carried out by Aristotle in *Metaphysics* and in many of his other works. The world is always what we say about world. This is another way to say, with Wittgenstein, that the limits of our language do mark out the limits of our world, or *ex contrario* that we cannot say what we cannot think (Wittgenstein, 1922: 5.6, 5.61). Only through a clarification of the coalescence between the structures of language and the structures of being, I think, it is possible to put the traditional ontology in its true light and to build, if it is possible, alternative and less linguistic ontologies. This does not mean that it is possible to build ontologies *completely* independent of linguistic analysis, because the language and the consideration of world are aspects of the same activity: the thinking/talking and the knowledge. Maybe the more we take in consideration the perceptual aspect of knowledge, the more we obtain a description of the world free from the structures of our language.

2. *The correspondence theory of truth within a holistic theoretical framework?*

The consequence of the natural similarity between language and world is the classical correspondence theory of truth (henceforth CT), where the true propositions are conceived as the correct linguistic images of the facts. As it is known, Heidegger’s interpretations aside, Aristotle is considered the father of CT; we can add that the real starting point of CT is Plato’s *Sophist*, in its connection with the *Cratylus* (cf. Licata, 2007). This theory, and the naïve conception of the speakers, does entail a conception of the relationship between language and world as in Fig. 1:

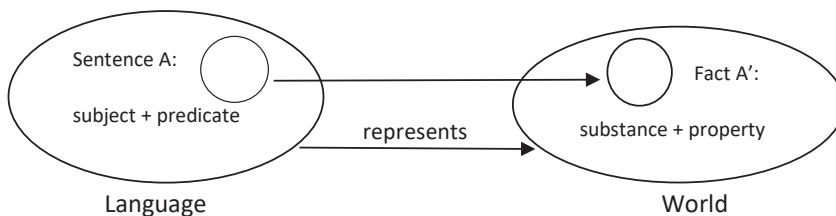


Fig. 1 - The correspondence theory of truth.

In the CT the parts of the world (facts) are conceived as referents of the parts of language (sentences). Lo Piparo (2012), on the basis of a holistic view of meaning, contests this conception. Lo Piparo (2003: 178ss) does accept the Platonic and Aristotelian presupposition of the similarity between language and world; but this similarity is conceived by him, in the framework of Mandelbrot's theory of fractals, as self-similarity. Given that the verbal language is however a part of the world, the similarity between world and language is a similarity between the world and a part of itself.

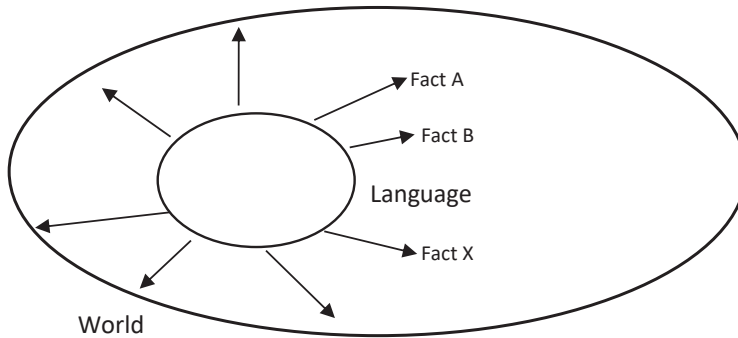


Fig. 2 - A holistic image of the relationship between language and world (Lo Piparo, 2012).

The similarity between language and world is theorized by Lo Piparo at the level of the relation between propositions and facts: only the sentence has the value of a real “sign” and only the whole proposition is a concrete act of language, not the words or the noun phrases. Differently from Lo Piparo, I consider the classical correspondence between the structure of the sentence and the structure of the fact, following the Aristotle's view (cf. *Categoriae* and *De Interpretatione*; cf. Licata 2007). Actually, with Plato's *Cratylus* and with the contemporary linguistic iconism (cf. Dogana, 1990), the similarity between language and world can be conceived at each level of linguistic analysis: sentence-fact, name-object, prime name-essence, letters-essential feature. This pervasive and multi-level similarity is the basis of the semantic naturalism expressed by Plato in *Cratylus* (cf. Genette, 1976; Licata, 2007).

The reason of this similarity is the fact that the human language evolved along hundreds of thousands of years, to express the world and the emotions of the speakers. The human beings, in their philogenetic development, employed the best devices to represent the world and to understand each other. In this way we have the language-world correspondence, the Wittgenstein's metaphor of mirror and the naïve conception of Fig. 1. However, it is often forgotten that language evolved also to express the ego, the inner (intensional and emotional) world of the speaker, and that the speaking ego represents the world and himself *to other people*. In this sense, the two constitutive pivots of natural language are always the dimensions of “being-in-the-world” and “being-with-others”, concepts arisen in Heidegger's reflection (1927) which can be fruitfully employed in philosophy of language. The personal representation creates a gap between the world *per se* and the world as subjectively seen and represented by the speaker. A slight complication of Lo Piparo's scheme of Fig. 2 shows that the correspondence between language and reality, and then between sentences and facts, is ineliminable and constitutive of our linguistic activity. In the scheme of Fig. 3 I insert the CT into the frame of a holistic conception of meaning. Into the world ($World_1$) the sphere of language ($Language_1$) represents the sphere of the world-of-language ($World_2$): the sphere of language does refer (or tries to refer) to the sphere of the world *per se* ($World_1$), but in this referring the human language creates images of a semantic world ($World_2$) that can be corresponding or not, more or less corresponding, to the world *per se*. The *reference* to the facts of the $World_1$,

and the simultaneous *creation* of the images of World₂, is shown through the double arrow. An absolutely objective representation of the *per se* World₁ is impossible because the language should be without subject or should come from the absolute position of God in order to completely and adequately refer to the world, while it is clear that the human language is only a part of the world and a subjective (and specific) view on the world:

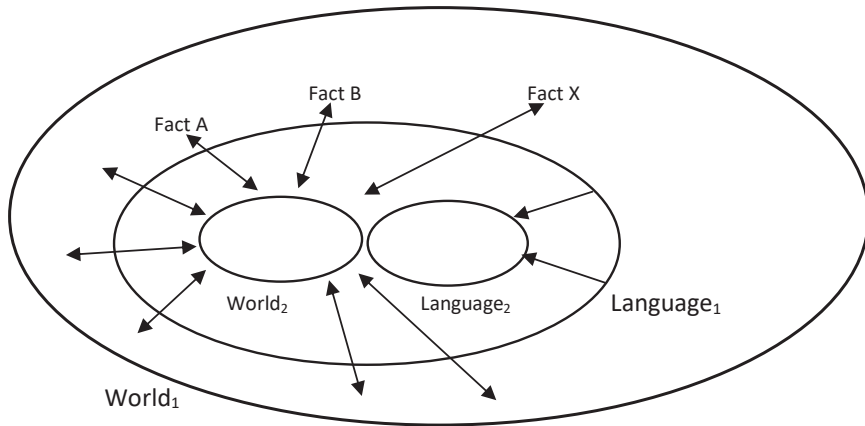


Fig. 3 - My proposal on the omomorphic relationship (as injective monomorphism) between language and world. Representing the World₁, human Language₁ creates the semantic, or linguistic, World₂; it can be true or false in a correspondentist way with respect to the World₁; the Language₁, referring to itself, creates Language₂, and this is the metalinguistic basis of all formalized languages.

Following the structure of Lo Piparo's scheme, but with some adjunction and a renewed point of view, I propose the holistic scheme of Fig. 3 which saves the correspondentist view. The human language is contained into the world and an alternation of the inclusions of the world in the language and of language in the world is represented. The real World₁ is always something which our language refers to creating a linguistic World₂, and our language is always contained in an ordered world which is expressible to some extent. Moreover, the verbal Language₁ has the power to refer to itself creating the Language₂, that is the metalinguistic basis of all formalized languages.

3. Idealism and realism

There are limits in the world that we never reach, the limits of our language stop us before: our world is constituted on the basis of our language and our language can express everything *in the world* in infinite progress, but the world cannot be absolutely expressed from an external point of view. My world is everything I can say, but we have always the certainty that the language represents facts on the basis of a pre-existent, objective world independent from the subject: *veritas est adaequatio intellectus ad rem*. The objectivity of real *per se* world must be maintained, even though charming contemporary theories – more or less idealist – claim that it is on the basis of our language and of our culture that we conceive the World₂. Of course, as Kant has shown in the *Critique of Pure Reason*, the subject interprets the real world on the basis of his knowledge structures. Culture and language are rigid frameworks which guide knowledge, but this is true on a high and a very refined level of interpretation: the level in which the difference between languages (with different lexicalizations and different grammars) entails a certain difference between cultures. On the level of the rough and immediate world-language relationship,

the environment, the emotions and the physiology of human beings are common and they are, with language, always effects of the same world. Even with regard to realism the root is Aristotle:

About the being as true, and the not being as false, given that they regard the conjunction and the division, the whole structure is the contradiction. Indeed, the true is the affirmation on what is conjunct and the negation on what is divided, while the false is the contradiction of this part; and how it happens to think the conjunction and the division, this is another question; I mean the conjunction and the division not in the sense of a mere succession but in the sense of something unitary. As a matter of fact, the false and the true are not in the things (in the sense that the good is the true and the bad is the false) but only in the thought (and for the simple things and the essences they are not even in the thought). (Aristotle, *Metaphysica*, E 4, 1027b 18-28)³⁰⁸

The infinite inclusion of language into the world and vice versa, in Fig. 3, shows that world and language are two indistinguishable aspect of the same reality, that travelling the world always you find language, and travelling language you always find the world. This is the sense of the clever metaphor of Möbius strip, which Lo Piparo (1991) employed to explain the semiotic relationship between linguistic expressions and their meanings, the *signifiant* and the *signifié* of de Saussure. *Signifiant* and *signifié*, from the point of view of our discussion can be understood as “language” and “world”. Discussing the semiotic structure of the linguistic expressions, Lo Piparo employs the mono-facial figure of Möbius strip, instead of the bi-facial Saussure's “sheet”, in order to corrode the *de re/de dicto* distinctions and to propose a novel view of linguistic semiotics³⁰⁹.



Fig. 4 - The Möbius strip is an image of the relationship between language and world.

The acceptance of a mono-facial linguistic semiotics which follows the model of Möbius strip does not prevent to theorize that, with regard to isolated fragments of language and to single sentences, world and language, fact and sentence should be considered (in the semantic analysis) as staying in opposite faces of the strip (as the classical CT proposes). Indeed, if you virtually cut in separated parts the Möbius strip you obtain again the Saussure's bi-facial sheet. Actually, in my opinion, it is impossible to build a semantic analysis of the verbal language, or a logical calculus, without an explicit or even implicit use of the correspondence theory of truth.

It is important to notice that the inclusion of the Language₁ into the World₁ means that our language refers (correctly or incorrectly, truly or falsely) to a real, independent objective world. The images created by Language₁ are those contained in the range of World₂, the world of semantics which can be true or false (corresponding or not corresponding) with respect to the real world (World₁). The sense of inclusion of the Language₁ into the objective real World₁ is that language *can* always cover the larger extension of World₁. This continuous conquest enterprise is nothing but the advancing of knowledge and of its linguistic description. Therefore, Language₁ is *in potentia* coextensive with World₁ and *in actu* included into World₁.

³⁰⁸ See also Aristotle's *De Interpretatione*, 1, 16a 1-18. The scholastic expression for this Aristotelian thesis is the well-known sentence *Veritas est adaequatio intellectus ad rem*, which can be considered the main thesis of philosophical realism.

³⁰⁹ This position is clearly bound to the semiotic theory proposed by Barthes (1964).

As suggested by many writers, the theory of meaning has an important role in the discussions about the nature of scientific objectivity³¹⁰. The progress of the knowledge and the linguistic description of the world should be considered as two aspects of the same process. This progress is well described by Buzzoni (1995)³¹¹ who demonstrates that science's advancing should be conceived as a more and more deep refinement of the semantic content of the theoretical terms. This refinement permits the engineering and the employment of technical devices which are new and more powerful than the past ones (connected to previous theories). The only way to conceive the superiority of a theory, with respect to the previous one, is to create a coherent and satisfying history of the consecution of the theories considered. This history has to give account for the meaning variance of theoretical terms, both from intensional (meaning) and extensional (reference) point of view, in the sense of an enrichment of the linguistic and conceptual map of reality. From this point of view, the meaning variance of the scientific terms and its possible coherent history – in subsequent theories which regard the same phenomena and which belong to different paradigms – is no more an argument in favour of the thesis of incommensurability, but just the key of scientific progress. This is, in brief, the hermeneutic and semantical conception of scientific progress proposed by Buzzoni (2013), who describes the close relation between the experiments and the theoretical presuppositions of the experimental actions. The meanings of theoretical terms must be embedded with the experimental and technical operations permitted by the theory, under which the operations are made and interpreted³¹². It is just the covariant complex of meanings and of references of the theoretical terms (from the old to the new theory)³¹³, the sense of a scientific explanation which opens up the comprehension and the possibility of the technological progress. And the technological progress, with its theoretical explanation, is the final evidence of the truth of a theory.

The scheme of Fig. 3 is also useful to understand the relationship between ontology and semantics, which is the core of this work. Indeed, in that picture World₁ is the real world studied by ontology, while World₂ is the world studied by semantics, the linguistic world which we find represented by sentences and discourses. Finally, the Language₂ is the language as object of reference of language itself, every kind of object language generated by the meta-linguistic function of human language. The fact that, in Fig. 3, the Language₁ is inside the World₁ and that the World₂ is inside the Language₁ is a way to show that, in Möbius strip, reality and language are on the same general "surface". It is possible to go from the former to the latter (and vice versa) without abandoning the unique horizon of consideration and the same semiotic plan. Things and words, facts and sentences are on the opposite sides of "content" and "expression" only one by one, but not in general. In general, it is impossible to speak about world without speaking about language and vice versa; while with regard to discrete portions of sense in the linguistic *continuum*, i.e. finite parts of meaning – like names, simple sentences or complex sentences –, the Möbius strip turns out to be indistinguishable from the bi-facial Saussure's sheet. Therefore, it seems that in every semantic theoretical frame it is necessary to employ (or it is impossible not to employ), in one way or another, the concept of correspondence.

³¹⁰ The relation between scientific objectivity and theories of meaning is widely discussed since the last decades of twentieth century in the contributions of Kuhn (1962), Scheffler (1967), Kripke (1972; 1981) and Putnam (1975; 1981).

³¹¹ See also Buzzoni (1986; 1989).

³¹² Buzzoni's view (2013) moves some step beyond the relation proposed by Hacking (1983) between theory and experiment, claiming that Hacking's defence of realism about entities and not about theories is an incoherent position, which causes the separation between the theoretical and the operational side of scientific research.

³¹³ The covariance of meaning and of reference of theoretical terms is the argument employed by Buzzoni (1995: 161-227) to overcome the thesis of incommensurability and it is a position which shows the wrong objectivism of Fregean invariance of *Bedeutung*, cf. Frege (1892).

4. Compossibility of correspondence theory of truth and semantic holism

It is suitable here a reference to the holistic theories of meaning, because these theories are a presupposition of the linguistic semiology connected to the Möbius strip similitude and because Holism has been the fiercest enemy for the correspondence theories of truth³¹⁴. The theories of meaning proposed by Quine and above all by Davidson ground semantics on the concept of truth³¹⁵, thus the sentence – the bearer of truth – is the prime atom of meaning: the meanings of the words are derived from the meaning of whole sentence by abstraction. The truth of the sentences is the indivisible element which directly interacts with the behaviour of the speaker. This is the feature of the holistic theories which pose them in opposition to correspondence theory of truth: according to Quine and Davidson it does not make sense to go under the level of the sentence (true or false) to find the linguistic expressions (names, words, predicates) which stand for the elements of discrete facts. Davidson's work demonstrates that a semantic theory of this kind can be built. There are many scientific reasons to consider the sentence as the prime concrete semantic element of language, and it is clear that, in the learning of language, the meanings of the words are abstracted from sentences. However, this does not prevent that in the mind of the speaker exist and are catalogued, in ordered ways, semantic traits (more or less words), which are employed by the speakers to *build the meaning* of linguistic expressions (cf. Licata, 2005). The recursive-combinatorial structure of the sentences is a clear evidence.

Holistic theories of meaning, in my opinion, are not able to completely erase the Correspondence Theory of truth, because the concept of correspondence derives *stricto sensu* from the simple observation that language has a structure similar to that of the world, a structure which has evolved to express the world. Whether this similarity has to be theorized only at the level of the proposition or, as Plato argues in *Cratylus*, it can be found at the level of names, of morphemes or until of phonemes, this is the most ancient problem of semantics. The construction of arbitrary or conventional³¹⁶ relations of designation between language and world is always possible but, in my opinion, it always happens on the basis of an original and natural designation, grounded on similarity as reason³¹⁷. The claim that the whole sentences are the fundamental concrete semantic phenomena from which the words are abstracted, and the idea that the words are the material of the semantic construction of the entire sentences can be true together. Giving relevance to the former or to the latter claim depends only on the point of view, on the theoretical frame and on the technological goals of the theories.

To recall the first part of this work, it is worth confirming that the problems of semantic ontology – an ontology which has the same structures of language – are Platonic and Aristotelian. The writings by Frege, Russell and Wittgenstein on the correspondence theory of truth have actualized and deepened the content of some Platonic and Aristotelian main theses on language and meaning. The holistic theory of meaning, despite his dramatic refutation of correspondentism, necessarily contains some features of CT, showing that correspondentism is not completely eliminable³¹⁸. Moreover, the

³¹⁴ Consider, e.g., the slingshot argument, employed by Quine and Davidson to refute the idea that discrete and structured facts correspond to discrete and structured sentences; in Licata (2011) I have put forward a refutation of the slingshot argument to defend the correspondence theory.

³¹⁵ See, e.g., Quine (1960) and Davidson (1984).

³¹⁶ It is worth recalling that arbitrariness and conventionality are different concepts which can eventually be connected.

³¹⁷ This is in brief the thesis of the natural designation of names supported, I believe, by Plato in *Cratylus*; cf. Licata (2007). A thesis that Leibniz does accept and repeat in many writings.

³¹⁸ Cf. Davidson's correspondentism (1969) and my observations in Licata (2011: Introduction and Chapter II).

“Platonic and Aristotelian shape” of correspondence theory of truth continues to be relevant nowadays, even when it is refuted.

The CT is grounded on the idea of similarity between language and world (omomorphism as injective monomorphism), the harmony between *representatio* and *repraesentatum* that we find when we think that, at the hidden ground, the laws of Reality and the laws of Logic are a unitary thing, something unitary which indicates the One. They are the Logical laws (as laws of the Being) which constitute the mysterious and wonderful rationality of the real³¹⁹, with respect of which the laws of human logic are only an historical and subjective interpretation. In this way it is clear that the correspondence between language and world is a symmetry and a kind of harmony. Moreover, the harmony, as Leibniz³²⁰ claims, is the trace and the sign of the One.

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³¹⁹ Consider the propositions of Wittgenstein's *Tractatus* on the “logical form” and consider Hegel's popular statement “the real is rational and the rational is real”, but also the modern philosophers studied and employed by Hegel: Leibniz and Spinoza. It is evident, anyway, that these philosophers express a thought that is fundamental and implicit already in Plato and Aristotle. Leibniz of course, with respect to Hegel, has a deeper understanding of the coalescence of the laws of Being and of the laws of Logic, because Leibniz is fully aware that the human rationality cannot understand well the harmony, but only perceive it superficially, be amazed by it and enjoy it. Leibniz's rationality understands its own limits and bases all the rational system of nature on an act of faith in God, an act that is over the human rationality.

³²⁰ In Leibniz's metaphysics (1931), the “pre-established harmony” of natural world is the effect of the creation of the world by God (the One).

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