



The Semiotic Turn in Karl-Otto Apel's Philosophy

Paolo Teobaldelli

The work that best represents Karl-Otto Apel's itinerary is *Transformation der Philosophie* (Apel 1973; English translation 1980), a collection of essays flowing from a pragmatic and hermeneutic re-interpretation of Wittgenstein's thinking toward the foundation of a philosophy able to avoid the nonsensicality of foundationlessness. Apel has renewed the necessary philosophical foundations through a broad conceptual confrontation with Peirce's thinking as well as with the general semiotic problematic of a pragmatics of signs in Morris's sense. Its treatment of the subject ultimately crystallizes into a personal and original project, a semiotic transformation of the transcendental philosophy based upon the concept of *Kommunikationsgemeinschaft*.

1. The Main Goal of Apel's Itinerary

The primary goal is to build a theory of science not limited simply to the logic of science, but also going further, redressing the metaphysical impasse through a widening of the (pure) traditional epistemology in terms of a cognitive anthropology, i.e. a theory of science which, by integrating hermeneutics and a criticism of ideology, would permit investiga-

tion into any imaginable kind of knowledge. Such a science is possible, according to Apel, if the whole set of the conditions of possibility of knowledge was investigated not in the domain of a Pure Consciousness in the Cartesian or Kantian senses, but rather in the domain of a (Heideggerian) consciousness which would be situated in-the-world and therefore a consciousness which is linguistically and intersubjectively constituted, since

A pure consciousness of objects, taken by itself, cannot secure any meaning from the world. In order to arrive at a constitution of meaning, consciousness [...] must become engaged concentrically; that is, embodied in the Here and Now. Any constitution of meaning refers back, for example, to a particular perspective which expresses a standpoint. Once again, this means a living engagement on the part of the knowing consciousness. (Apel 1980, 48)

This assumption leads us to consider the linguisticity of knowledge as the (intersubjectively valid) presupposition of knowledge itself. Language cannot therefore be ascribed uniquely to the laws of the Kantian A-priori of consciousness but also to an A-priori which has not been taken into account by the philosophy of consciousness and which Apel defines as *Leibapriori*, i.e. a bodily *a priori*. In this distinction we find a basic theme which is constantly present in the following development of the semiotic transformation of philosophy worked out by Apel.

As a matter of fact he believes that in the knowing process each of these two types of *a priori* integrates the other one, yet:

[...] in the actual production of knowledge either the life a priori or the a priori of consciousness takes up the leading position: 'knowledge through reflection' and 'knowledge through engagement' stand as polar opposites. For instance, I cannot simultaneously gain a significant aspect of the world and reflect upon the standpoint that I must necessarily take up in so doing. All experience – *and this applies even to the theoretically guided, experimental experience in the natural sciences* – is primarily knowledge through engagement in life; all theory-formation is primarily knowledge through reflection (49, my emphasis)

This entire line of argument appears to me to be weak and not entirely free of contradictions. It does not convince us, as a matter of fact, of the assumed opposition of polarity, since I think it can be argued that

knowledge through bodily engagement presupposes reflection and vice-versa.¹

Let us consider the example of an archaeologist, archaeologist Z. By reflecting on given data, such a person might hypothesize that a given place hides valuable archaeological artifacts. Z has no knowledge of them as yet, since Z has only an unverified hypothesis, and in order to verify it Z needs a physical engagement, i.e. Z must proceed in digging. Yet let us suppose that while digging Z makes a further reflection on the observational data in front of him/her (that allow Z to recognize some details of his/her cognitive map which Z did not see as relevant at first) that leads Z to believe he/she has not begun his/her dig in the right place, although near to it. Z then has to modify its engagement and this can also happen more than once. Therefore, how is it possible to divide the knowledge through reflection from the one through engagement in life? Furthermore, it can be argued basically that any reflection is an engagement in life, since reflecting is also living and doing something.

The whole argumentation and division seems indeed to come out from a presupposed dichotomy between the so-called *Geistwissenschaften* [Sciences of Mind, that is Humanities – Ed.] (i.e. those of ‘knowledge through reflection’) and the natural sciences (i.e. of ‘knowledge through engagement in life’). Then the task of Apel is to distinguish a meta-empirical (Abstract, ideal or eidetic) thinking, i.e. a *prima philosophia*, from a thinking that is directly oriented toward a concrete world, i.e. a thinking that is also a technical manufacturing.

2. The interest of knowledge and language

In this sense, as a matter of fact, Apel introduces the category of interest (taken from Habermas 1968) which, he believes, can be promoted

1. Further, it seems to me that the same terminology suggests the paradoxicality of that trope, because according to it, reflection appears to be something other than the life of a human being. That is, how is it possible to reflect without being situated somewhere? Where is the meta-empirical point of view situated? Can theoretical systems which would not be standpoints and therefore which would express at the same time a given perspective, be formed? It seems to me that such a question is due to the same problem, namely that of a non-anthropomorphic conception of the Peircian interpretant (as criticized in Teobaldelli 1998b).

to the status of a priori, as interest in knowledge, and divided then according to the aforementioned dichotomy:

It seems to me that man has basically two equally important but non identical complementary cognitive interests:

1. An interest that is determined by the necessity for a technical praxis as the basis of insights into natural laws;
2. An interest that is determined by the necessity for a social, morally relevant praxis. (p.59)

The second of these two interests is the one oriented toward consensus, toward communication, and it also regards natural objective science since it is also the condition of possibility of such science, because “as Peirce recognised, the natural scientist’s community of experiment always expresses a semiotic community of interpretation (p.58).”

Of relevance to our investigation is the argument (based upon such a gnoseo-anthropological context) that Apel works out about the science of language, and particularly the subject of scientism arisen against it. Apel sees the science of language as a mere empirical-descriptive semantics², since it has to be included within the same semantics and so on ad libitum. Apel argues that in such a way the subject of these empirical languages, which are semantically described, has been reduced (via objectivation), and this reduction consists of its elimination as a scientific theme:

Thus pragmatics itself once again becomes the subject matter of a scientific language viewed as a semantic system. Moreover, since the subject of this scientific language can only be understood as an object and so on ad infinitum, scientism implies the reductive elimination of the subject of science [...] The description of the pragmatic dimension cannot be applied to its own dimension at the time of its usage (p.97).

2. Therefore I find here in Apel an indirect confirmation of my critiques of the non-anthropomorphic interpretation of the Peircian interpretant upon which Eco bases his theory of semiotics (Eco 1975) and the strong philosophical value he gives to the notion of information seen as the ground of knowledge (see Teobaldelli 1997; 1998).

For this reason I see in this trope of Apel's thinking a convergence with the critical analysis I made in previous works (see Teobaldelli 1995, 1997) against a semiotics based upon an informational-semantic view. As a matter of fact, although the argumentation of Apel is a philosophical one, the conclusion implies equally the invalidation of such grounds, i.e. it is not possible to comprehend language(s) as defined and closed system(s) of signs and the meanings for which they stand.

The problem, then, is which conception of language (and of meaning) must semiotics embrace in order to affirm itself as a science. Yet in the strict confrontation with Apel it is possible to understand that to solve such a question is an extremely important task not only for a semiotics per se but also for the entire question regarding the validity of human sciences as such. It seems clear to me, then, that such a solution can be approached by building a semiotic philosophical *Theory of Human Communication*, a theory that would be able to ground itself on a global approach to the dimension of human interaction. That is to say, it would be adequate to build an integrated theory which would furnish us with valid heuristic concepts and models for the analysis and explanation of any possible acts of knowing on the part of human beings.

In this regard it seems necessary to verify whether the semiotic transformation of philosophy proposed by Apel would constitute such a theory.

3. *Kommunikationsgemeinschaft* and *Sprachapriori* through Peirce

We have already seen a first problem in the distinction made between the reflective a priori (*Reflexionsapriori*) and the bodily a priori, a distinction that underscores, in Apel's intentions, such theorized suspicious disjunctions as mind/body, ideal/real internal/external etc. It would seem difficult, then, to individualize it as a paradigm shift in respect to a philosophy of consciousness. The point crucial to its verification consists in the Apelian conception of *Sprachapriori*, which is in some sense the real foundation of his transcendental semiotic theory. As a matter of fact, as in Peirce, a conception of a Community of Inquirers or *Kommunikationsgemeinschaft* as the transcendental intersubjective condition of any knowledge cannot be used without an analysis and conceptualisation of lan-

guage, and in particular it requires an analysis of signification, which would be its ultimate point of verification.

At this point Apel expressly acquires Peirce's well-known thesis³ according to which the knowledge of something as something without a real world, a real (sign) mediation and a real interpreter is not possible.

Apel rightly interprets, in my humble opinion, the Peircian interpretant, i.e. as bodily situated, since in fact this does not mean that the Peircian interpretant is the human interpreter, but rather only that the interpretant as meaning (of a sign mediation) is possible because it can have a realisation thanks to a living being (in the specific case the human being), i.e. it has its condition of possibility in the Leibapriori,⁴ in the knowing engagement of a human being: "Primarily, the semiotic transformation of the concept of knowledge requires a real subject of sign usage that must replace pure consciousness" (p.103).

It is particularly relevant, for Apel, to underline the pragmatic intersubjective feature of this Peircian conception and its derivation from the Kantian transcendental problematic.

Yet Apel hermeneutically constrains the ternary Peircian relation. Peirce, as a matter of fact, aimed, with his triad, at binding knowledge to a real evidence which would have been accessible to everybody (in this sense his phaneroscopy is in fact similar to Husserl's phenomenology), and therefore he aimed to demonstrate that the Kantian setting placed reality within the domain of the unknowable, since the thing-in-itself (i.e. reality) was out of the domain of consciousness. Kant thus stumbled on an extreme aporia, since the thing-in-itself was at the same time given and denied. The conception worked out by Peirce tries indeed to lead science back in the domain of reality, and thus to the explication of facts. According to him the consensus on a theory is therefore the testing of such theory on facts, a testing that would thereby make its validity evident, by experimenting it. Anyone who would repeat on facts such an application would obtain the same results.

Indeed, Apel introduces a hermeneutic interpretation of the experimental consensus of Peirce, which depends, in my opinion, upon the results of his re-interpretation of Wittgenstein's thought (see Teobaldelli

3. This can be said as well, in my humble opinion, of the semiotic theory provided by Eco (1975).

4. See references at the end of this paper.

1998b). In a previous article dealing with Wittgenstein, Apel (1962) tried to deurate the concept of the linguistic game from its own assumption of unknowability, of pragmatic relative mediacy, by saving its transcendental possibility through a hermeneutic transformation.

4. The Transcendental Hermeneutic Transformation of Wittgenstein's Relative Linguistic Game

Apel believes that the linguistic game, although a concrete and situated form of life, would nevertheless contain within itself the fact of being and also a transcendental pre-comprehension, and therefore constitutes, within the dialectic relation of inter-exchange between the various linguistic games, a relation which is made possible by the unity of such games, a unity ensured by them being part of a larger presupposed game which transcends and encompasses them.

But we must deeply value this deuration of the concept of linguistic game from the assumption of unknowability, since in Wittgenstein it includes the impossibility of a precise shared knowledge of the subjective experience of the object expressed by the meaning. Wittgenstein thought of the linguistic game as the pragmatic possibility of the expression of a subjective perception of the world. But the true aspect of this subjective perception cannot fit entirely within the form of language, which is therefore only approximately similar to it. Mind and language are thus conceived as two incongruent dimensions, and the gnoseological experience of perception has an enduring primacy over the mediation of it made by language.

Therefore I am led to remark that the transcendental meta-linguistic re-collocation at which Apel arrives through the linguistic game seems, paradoxically, just like the Wittgensteinian outcome it aims to neutralise. As a matter of fact in this way Apel would annul the main task of the notion of Wittgenstein's linguistic game, i.e. its pretension of avoiding a metaphysical foundation. Indeed, Apel works it in a way that can be argued to be metaphysically-grounded, since in his view the transcendental linguistic game does not have, as an object, a direct relation with the world, but rather some pragmatic mediation of such a relation, i.e. the linguistic game as forms of life in the Wittgensteinian sense.

The problem, then, lies not in the goal of the general argumentation, but in its methodology, since it would have been necessary to inquire and to verify what conception of meaning is encapsulated in the folds of the notion of linguistic game (see Teobaldelli 1998a) which are the consequences of such a conception. The gnoseological setting of the linguistic game leaves no room for meta-pragmatics, for a linguistic game of all possible linguistic games, because by doing so it would abandon its own gnoseological setting.

Thus we have to return to ourselves the question: is Apel's setting a gnoseological one as well? In its first instance (Apel 1962), this question remains unsolved, since Apel never arrives at a clear position on the problem of his interpretation of Wittgenstein's thinking. Yet in the following itinerary (Apel 1973), in order to find a semiotic escape from the suspicion of the nonsensicality of philosophy posed by Wittgenstein, he enlarges his frame of reference through a direct confrontation with the work of Peirce. In this way he turns to a more direct reflection on meaning, which is of the utmost pertinence to our present investigation. Consequently we will now directly analyze such an itinerary.

5. The Semiotic Transformation of Philosophy and their Principal Junction

Apel believes that the subject of science in Peirce would not be the pure consciousness of Kant, but rather

a real community of experiment and interpretation, in which an ideal, unlimited community is simultaneously presupposed as a telos. This community can be experienced in a sense, as can its signs and actions, but not as an object of experience that could be described extrinsically and explained as an observational datum. Rather, it is experienced as the intersubjective medium of communication about the conceptual preconditions for the possibility and validity of descriptions and explanations of observational data (p.110)

Apel again proposes his argumentation of linguistic games as having a unique pre-condition, namely the transcendental pre-comprehension as dialectic unity; the difference is that here it becomes the ideal unlimited community. Apel believes it possible, through the Peircian conception of

the sign-based mediation of knowledge, which is, unlike the Wittgensteinian equivalent, always intersubjectively (and conventionally) conceived, ultimately to find this transcendental dialectic unity right in the community of communication as the community of interaction. The transcendental linguistic game thus becomes possible because sign-mediated knowledge is not only the kind oriented towards the object but also the intersubjective knowledge of the presupposed form of linguistic interpretation: here, it would seem, Apel finds the self-reflexive principle which might permit him to build a transcendental philosophy.

But we have to ask ourselves if this principle is satisfactory enough to afford the problematic junction of the notion of the transcendental linguistic game as the pre-comprehension of all linguistic games (see Teobaldelli 1998). If we exclude the counterfactual verifying required by Peirce, what, then, is the criterion with which we can acquire consensus within the *Kommunikationsgemeinschaft*?

It is thus clear that a solution to this question is to be acquired only through further reflection on the problematic conception of the significata of linguistic games and therefore through a deep investigation of the notion of the transcendental linguistic game, i.e. of the *philosophia sub specie semiotica*: “In my opinion a modern transcendental philosophy is primarily concerned with a reflection upon the meaning – and thus also upon the implications of the meaning – of argument as such” (p.138).

Is a foundation of human sciences possible on a level of such abstraction that the discriminating factor would not be limited to a confrontation with the empirical datum? Apel is very lucid and clever in his criticisms of the Logic of Science based upon the mere description of facts and states of affairs. His effort in surpassing it, considers the possibility of going further with the realism/idealism distinction, which seems to be a solid dichotomy for the main axiomatization of semiotics as well (see Teobaldelli 1997). Apel proposes, in this regard, the following kind of dialectical mediation:

Indeed, in my opinion both the Wittgensteinian concept of the ‘language game’ and Peirce’s concept of the ‘community’ can be interpreted in such a manner that, on the one hand, the functional point of Kant’s transcendental idealism is retained [...] whilst on the other, a mediation of Kant’s transcendental idealism with a realism, and even historical materialism of society that has indeed always been presupposed (as the subject-object of science) is implied. The possibility and even necessity for such an interpretation is conditioned by the fact that a sense-critical transcendental philosophy does not, as does Kant’s, commence from the metaphysical presupposition of a distinction between the thing-in-itself and the empirical world of appearances, nor from the presuppo-

sition of a transcendental subject as the limit of the empirical world. Rather, it commences from the fact that the ideal norms that must be presupposed in order for any argument to have meaning (i.e. the postulates concerning the formation of consensus in knowledge of the real world and in agreement as to a continuation of the real world through historical praxis) are in principle destined to be realized in a concrete society (p.139-140).

The subject of consensus, then, is no longer consciousness but rather the communicative and intersubjective praxis which works out a comprehension of the historical society and science within a reference to the unlimited ideal community of communication.

But let us better characterize the nucleus of that question: Apel believes he has found the self-reflexive principle within the experience of being in (taking part in) an intersubjective medium which would permit the *Kommunikationsgemeinschaft*. Yet this experience is, according to Apel, of a different type than the one concerning the empirical datum; if the latter “opens up the transcendental horizon for such entities as contingent ‘laws’,” and thus concerns the natural sciences, the former opens up the transcendental horizon toward an experience which falls under the category of a reflection, a qualitative revision of one’s own conceptual presuppositions. It is therefore the well known difference between *erklären* (to explain) and *verstehen* (to comprehend) as different transcendental scientific methodologies, a difference which comes from the above presupposed dichotomy between *Reflexionsapriori* and *Leibapriori*, and which persists then as a problematic node. It can be objected in fact that the natural sciences, too, must reflect upon their own concepts and it is sufficient to consider, for example, the modeling of experimental phenomena done in any laboratory.

The obstacle Apel’s communicational paradigm seems to encounter is again precisely that represented by the conception of sign, i.e. a semiotic philosophical problem. Apel as a matter of fact tries to avoid a gnoseologic view through a methodological distinction between the reference to empirical data (gnoseology) and the self-reflexive comprehension (hermeneutics), but in this way he sets aside the general role of the symbolicity of knowledge that indeed should be considered as equally relevant in both the natural and human sciences, since it can be argued that such symbolicity is the common ground of any human activity, and is thus present both in the former scientific research and in the latter.

But there is still a more basic question. If we assume that only the natural sciences refer to facts, to empirically verifiable states of affairs, what does the hermeneutic self-comprehensive science, the *prima*

philosophia semiotica, refer to? To an unreal and non-empirical something? And from which point of view? The paradoxical nature of Apel's conception, then, is clear. He does not succeed in overcoming the paradox of Wittgenstein's linguistic game. The linguistic game of linguistic games cannot be a language having a different functioning; its signs must be, in principle, equivalent to the others. Therefore, to what do they refer? Thus Apel's basic axiomatization goes no further than the idealism / realism dichotomy, but, rather, integrates this axiomatization within a point of view that is external to it, but whose precise boundaries are extremely difficult to locate.⁵ This arises from a lack of strict confrontation with specific semiotic questions, and above all with the fundamental question represented by the terms and notions of sign and signification, which would have shown him the impossibility of any escape from a philosophy of consciousness without a deep reflection on what appears to be one of its most powerful concepts, i.e. the unproblematic and gnoseological sign/meaning relation.

Semantics excludes the subject of science, and renders interpreting a mechanical and automatic process which needs no further explanations. Yet it seems, indeed, unsatisfactory to exclude the validity of the gnoseological view of semantics at least in terms of the human sciences, and thus to give the human sciences a different status, i.e. a hermeneutic one. Either the gnoseological assumption of truth as referring to an object is valid for all sciences and therefore is to be considered a good grounding to any theory of knowledge, or on the contrary it is necessary to reject it in toto, since it reduces knowledge to mere empiricism and therefore it gives a validity only to an empirical-descriptive semantics as the true science of meaning. It seems to me that there is no escape allowing us to have it both ways.

6. A Further Development of Apel's Thought: The Questioning of Meaning

In a recent article, "*Significato linguistico o intenzionalità*," Apel (1986) specifically analyzes the question of meaning, of reference, of representa-

5. Its outcome is in a way similar to that of Husserl, where the eidetic essences are neither real nor ideal and therefore are circled in a realm of obscure nature (see Teobaldelli 1998b).

tion and intentionality, trying to underline a primacy in terms of a methodological priority of the *Sprachapriori* on the *Bewußteinsapriori* in the comprehension of meaning, and consequently of a transcendental (intersubjectively conceived) philosophy on a philosophy of mind. In particular, he tries in that paper to characterize the semiotic transformation of philosophy both as a semantics and a linguistic-pragmatics. In terms of our analysis then, this represents the possibility of verifying whether he would add any new elements in respect with those outlined in *Transformation der Philosophie*, mainly as far as concerns the question of signification from a semantic perspective.

Apel writes:

I would like to frame such questions by taking as reference the controversy which has been going on recently in the ambit of the so-called analytic philosophy of Anglo-Saxon matrix; I refer in particular to the discussed question: what is more basic in the foundation of a theory of meaning, the meaning articulated in the sense of linguistic conventions or rather the meaning as intention or intentional content in the mind?" (p.74)

Following this goal, Apel tries to underline the innovative aspect of the linguistic turn in respect to the Kantian investigation. The transcendental Kantian outcome (i.e. that experience is possible thanks to the fact of having the same conditions of possibility that make objects possible, i.e. the a priori categories of consciousness), which expressed a direct (phenomeno-perceptual) relation between the I and the world, becomes within the linguistic turn a linguistically-mediated relation and consequently the description of knowledge is made possible thanks to the fact it meets the same conditions of possibility as describable facts:

The representation of the world through the language — and more precisely: through the structure of propositional sentence — is rightly unavoidable. Here is that it is underlined the methodological primacy of the a priori of language (p.80)

But from a phenomenological point of view, according to Apel, it could be possible to go further toward the descriptive representation of facts through the "perceptual identification of the given phenomenon" which presents itself to the consciousness with evidence (Apel takes the example of photography). This principle of phenomenological evidence breaks the tautological circle between true sentence and fact. Yet it does

not contradict the linguistic turn because, says Apel, if the phenomenic evidence proves the existence of an object on the other side it is not enough to produce an interpretative judgement. For example, in order to recognize an animal in a photograph we need to have some propositional-descriptive tools. In conclusion, we can say that Apel inserts himself between phenomenology and linguistics, the pragmatic integration of the linguistic turn. The empirical sciences cannot be based upon a mere logical semantics in order to gain a reference-based verification of their own enunciations, since, to comprehend them, they have to presuppose the communicative agreement among the subjects of science.

At this point Apel analyses the thesis expressed by Searle in *Intentionality*. According to this thesis, by carrying out the linguistic act, the consciousness attributes to it the same conditions of satisfaction belonging to the state of consciousness, and therefore the philosophy of language would be a philosophy of consciousness. This assumption raises the question of the priority of language. Apel refutes it, by accusing it of being a methodological solipsism, since the same interpretation of facts which would precede the phenomenic evidence would be possible only thanks to language. Thus Apel believes that it should be necessary at least to speak of a reciprocal dependency between the *a priori* of consciousness and those of language.

His purpose consists, therefore, in a pragmatic integration of semantics, worked out according to the terms of the Austinian theory of speech acts. In this view semantics is not sufficient because it excludes the pretensions of sense of the speaker, his illocutionary acts and his self-situation in a pragmatic context. The function of representation does not represent the whole human significative acting. This is, in brief, the integration of the concept of double performative-propositional structure of meaning that Apel takes from Habermas (1971). Thus language does not merely describe, and does not merely represent the objective world, but rather it refers to the pragmatic context as well, and therefore not only to the object-world but also to the co-social-world of interaction.

Conclusion

I will now attempt to evaluate this final assumption through a comparison with a more general semiotic questioning.

Semantics would be then a part of linguistic activity, i.e. that related to the object of the physical world. The sign-meaning association regards only this aspect. But how is it possible, then, to signify something of relevance concerning human beings and society? What are the *significata* of human and social sciences?

It seems clear to me that the solution proposed by Apel persists in the highly problematic junction between the referring to the object (gnoseology) and the self-reflexive hermeneutic principle. I think that the analysis of his semiotic Transformation of Philosophy reinforces the existence of a highly problematic node in the conception of signification, which I pointed out already in previous works (see Teobaldelli 1995 and 1997). As a matter of fact it seems necessary from a strictly philosophical point of view, to engage in an effort towards transcending the distinction between semantics and pragmatics, since, as we have just seen, the fundamental conception of semantics is nothing but a partialgnoseologic view, and to accept it means to exclude any other role for pragmatics which would not be a mere contextual reference, i.e. only a secondary role in the signification process. But the main problem is that this view seems to deny the foundation of the human sciences, since, by assuming that they would not refer to the physical world of objects they are automatically encircled in a metaphysical dimension which cannot be semantically grounded. The pragmatic dimension is therefore conceived, as I have already pointed out by analysing the non-verbal communication (see Teobaldelli 1993 and 1995), as a mere behavioural dimension which is not significant but only a support to the real and true objective signification, i.e. the referring to objects.

Thus, in my opinion, the semiotic transformation of philosophy proposed by Apel does not overcome, but rather remains caged within, what appears to be a semiotic philosophical and metaphysical dualism of signification, which therefore survives as a most difficult question to address.

Bibliography

- APEL, K.-O., (1962). "Wittgenstein und Heidegger: Die Frage nach dem Sinn von Sein und Sinnlosigkeitsverdacht gegen alle Metaphysik," *Philosophische Rundschau*, n°75, 1967, p.56-94.

- (1964) "Die Entfaltung der 'Sprachanalytischen' Philosophie und das Problem der 'Geisteswissenschaft,'" *Philosophisches Jahrbuch*, n°72, 1965, p.239-289.
- (1973) *Transformazione della Filosofia*, (English translation: 1980, *Transformation of Philosophy*, London, Routledge & Kegan Paul.)
- (1986) "Significato linguistico e Intenzionalità," conference paper held April 8, 1986 at the Università di Macerata (English translation of quotations by the author of the present article).
- ECO, U., (1975). *Trattato di semiotica generale*, Bompiani, Milano.
- HABERMAS, J., (1968). *Erkenntnis und Interesse*, Frankfurt am Main, Suhrkamp Verlag.
- (1971) Vorbereitende Bemerkungen zu einer Theorie der kommunikativen Kompetenz, in Habermas-Luhmann, *Theorie der Gesellschaft oder Sozialtechnologie?*, Frankfurt am Main, Suhrkamp, p.101-141.
- PEIRCE, C.S., (1868a). "Questions Concerning Certain Faculties Claimed for Man," *Journal of Speculative Philosophy*, n°2 (1868), p.103-114.
- (1868b) "Some Consequences of Four Incapacities," *Journal of Speculative Philosophy*, n°2 (1868), p.140-157.
- (1869) "Grounds of Validity of the laws of Logic: Further Consequences of Four Incapacities," *Journal of Speculative Philosophy*, n°2 (1869), p.193- 208.
- (1877) "The Fixation of Belief," *Popular Science Monthly*, n°12 (November 1877), p.1-15.
- (1878) "How to Make our Ideas Clear," in *Popular Science Monthly*, n°12 (January 1878), p.286-302.
- TEOBALDELLI, Paolo, (1995). "Aspects of Multimedia Communication," in a collection of essays by De Gruyter (published in part at <http://www.megi.it/raven>).
- (1997). "Communication and Signification within Semiotics," working paper, (published in February 1998 at <http://www.megi.it/raven>).
- (1998a) "Signification and Knowledge: A Semiotical Philosophical Analysis of Wittgenstein's Work," article in press with *Sincronia, Journal of Culture Studies for Latin America*, published by the Social Sciences and Humanities Center at the University of Guadalajara, Mexico.
- (1998b) "Towards a Multimedia Semiotics of Human Communication," working paper.
- WITTGENSTEIN, Ludwig, (1921). *Tractatus Logico-Philosophicus*, London, Routledge & Kegan Paul, (1974).
- (1953) *Philosophische Untersuchungen*, Baden-Baden, Suhrkamp Verlag, (1977).