

Zeljko Loparic and the Project of a Transcendental Semantics

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Abstract. *The article aims to present and discuss Zeljko Loparic's interpretation of Kant's Critique of Pure Reason as a transcendental semantics. The essay is organized in four sections. The first introductory section presents briefly the motivations of the project of a transcendental semantics. The second and third sections are devoted, respectively, to the doctrinal and heuristic canons of transcendental semantics. In the last section I try to indicate briefly some consequences of this project.*

Keywords. Kant, Zeljko Loparic, Transcendental Semantics, Transcendental Heuristics, Theory of Concepts.

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1. Introduction

I will address the topic of transcendental semantics from the perspective of a great exponent of Brazilian Kantian philosophy, Zeljko Loparic (1992, 2000, 2005). In Brazil, there is a long tradition of Kantian studies focused mainly on the hermeneutic analysis of Kant's works. Loparic's interpretation stands out in relation to this tradition by defending the idea of Kantian philosophy as a contemporary philosophy. Many of his former advisees and students at Campinas University, such as Daniel Omar Perez, Joãosinho Beckenkamp, Andrea Faggion and Alexandre Hahn keep alive this new way of interpreting Kant's texts. Due to its originality and specificity in the treatment of Kantian themes, this tradition inaugurated by Loparic has been referred to as the Campinas School of Kantian Studies.

Loparic's main ideas are found in his key work, *A semântica transcendental de Kant*, published in 2000, resulting from his doctoral thesis defended in Leuven, in 1992, under the supervision of Jean Ladrière. He seeks to interpret the Kantian transcendental logic as a transcendental semantics, namely as an *a priori* theory about the meaning of concepts and about the truth and falsity of judgments. Loparic's logical-semantic reading of *Critique of Pure Reason* can be placed among those contemporary Kantian interpretations that have emerged in the last decades and were carried out previously by, among others, Wilfrid Sellars (1967, 1968), Robert E. Butts (1969), Jaakko Hintikka (1973), Wolfram Hogebe (1974), and Alberto Coffa (1982, 1991) and subsequently by John McDowell (1994, 1998), Béatrice Longuenesse (1998), and Robert Hanna (2000, 2006).

However, the term "semantics" was not part of Kant's terminology. Transcendental philosophy does not strictly deal with the meaning of expressions of language, that is, the meaning of words and sentences in a given linguistic system. Thus, the adherents of logical-semantic approaches, such as Loparic, are at odds with canonical interpretations of transcendental idealism of either metaphysical or epistemological lineages. The motivation behind the project of transcendental semantics has a twofold purpose. The first is to show that some of the main problems of contemporary philosophy of language, in general, and of semantics, in particular, are subsumable to the problems of critical philosophy. From this perspective, the return to Kant would be in the sense of elucidating or even solving problems presented by contemporary philosophy of language. The second purpose takes a hermeneutic tack. It seeks to outline that in fact the fundamental theoretical question of the first *Critique*, which Kant synthesizes in the answer to the question *How are synthetic a priori judgments possible?*, acquires a more relevant and current content if taken from a semantic point of view. Thus, the initial effort is to translate the old terms and expressions of Kant's vocabulary into the new ones of contemporary philosophy of language to subsequently promote a better understanding of specific important problems of both philosophy of language and critical philosophy.

2. The doctrinal canon of transcendental semantics

The particular case of Loparic's interpretation of transcendental logic as a semantics of *a priori* concepts aims at a theory that relates the solubility of problems of reason to Kantian philosophy of science as a transcendental heuristic. Loparic admits to having arrived at this heuristic conception of a Kantian doctrine of science from his critical

reading of the works of Ernst Mach and Carnap's *Aufbau*. From them, it became clear to him that the intrinsic activity of science is a problem-solving activity. This means to say that a well-formulated question has an attainable answer in principle. In this sense, according to Loparic, the young Carnap's criterion of meaning would not be the equivalent of a coherent picture of the world, but «a set of decision procedures for statements about the world of phenomena» (2000, 2). In investigating the origins of Carnap's semantic conception implicit in *Aufbau*, Loparic recognizes in it traces of the Kantian strategy according to which «problems, in order to be solvable, must refer to objects made possible by consideration of the heuristic efficacy of mathematics and natural science» (2000, 17).

He thus seeks to show that the fundamental problem of the *Critique of pure reason*¹, that is, the answer to the question “how are synthetic *a priori* propositions possible?” (KrV, B73), is solved «within an *a priori* theory of the reference and meaning of theoretical *a priori* concepts and of the truth of synthetic *a priori* judgments» (Loparic 2000; 2005, 113). It is for this reason that, according to Loparic, semantics has explanatory priority over critical epistemology and metaphysics. By this he means that in order to understand the epistemological questions about the possibility of mathematics, physics, and metaphysics as a necessary and universal knowledge, we are first required to face the semantic problem of the general meaning of synthetic *a priori* propositions.

Loparic's argument in favor of the precedence and independence of semantic questions in relation to those of epistemology in the *Critique of pure reason* is based on the assumption that the Kantian project of a critical philosophy has as its central problem the semantic problem of the decidability or solvability of the theoretical problems of pure reason (Loparic 2000, 14-29). Kant in his critical metaphysics would have faced this problem based on what Loparic calls the theorem of decidability or solubility. This theorem has, according to him, the following formulation: «it must be possible for human reason to decide, with complete certainty, whether a theoretical problem is soluble or not, being able to arrive, if the problem is soluble, at the knowledge of what is sought» (Loparic 2005, 116). This solubility theorem, however, does not solve the problem, it only states that the solution could in principle be possible.

According to Loparic, when facing the issue of which problems of pure theoretical reason can be *a priori* solved and which cannot be, Kant was forced to primarily develop a semantic theory of the meaning of synthetic *a priori* judgments or propositions. The answer presented is seemingly simple: a problem is *a priori* solvable for reason if, and only if, the predicate of the judgment is determined, namely, if it expresses a contentful concept. In turn, a concept has content if it concerns a domain of objects that are given to sensible intuition. In this sense, there are determined predicates and non-determined predicates. The former refers to concepts with empirical content and the latter to empty concepts to which no intuition corresponds. The solution to the problem is thus found within the Kantian theory of the determinability of the predicates of judgment, which, in turn, presupposes what Loparic calls «the theory of the givenness», present in the Transcendental Aesthetics. In light of this last theory, the answer to the problem is presented as follows: «A problem is soluble only if it employs exclusively predicates that can be referred to given objects» (2005, 118). And, according to the doctrine of transcendental aesthetics, objects can only be given to sensible intuition. Thus, the

¹ As is customary, the *Critique of pure reason* is cited with the pagination of the first and second original edition of the work (KrV “A” and “B”, respectively). Kant's other works are cited according to the Academy edition of Kant's *gesammelte Schriften* (abbreviated “AA”).

requirement of empirical interpretability requires that «all ‘non-logical concepts’ occurring in a synthetic proposition have objective reference and meanings» (2000, 20).

We might thereby be led to think, according to the givenness theory presupposed by transcendental semantics, that objects can only be given to us entirely *a posteriori*. In this sense, the objects of mathematics, insofar as they are conceived by the mind entirely *a priori*, would be devoid of meaning. Kant obviously could not admit this. The question of reference and meaning of mathematical concepts and objects acquires a special relevance in the context of a transcendental semantics. The clarification of this question is important for understanding how abstract mathematical objects, such as points, lines, numbers, circles and triangles, formally defined in an *a priori* way, are compatible with the theory of givenness, emphasized by Loparic’s interpretation. For this, it is necessary to take into account the difference established by Kant between pure sensible intuition, proper to mathematical objects, and empirical sensible intuition, proper to physically perceptible objects. In both intuitive processes sensibility is involved, either in a pure or *a priori* way, as in the first case, or in an empirical and *a posteriori* way, as in the second case. The abstract concepts of mathematics require a constructive procedure of imagination in order to determine them *in concreto*. They are thus sensitively interpreted by the method of geometric construction, involving schemes that link the abstract and universal concept to a pure and concrete intuition which is representable by a singular figure or image of that concept.

The method of constructing a concept, applied to mathematical cognition, is a way of giving objective reality to an abstract concept. To this extent, the act of construction is a semantic rule of mathematical cognition. Such a rule enables a meaningful use of mathematical concepts by restricting the valid sphere of mathematical knowledge to pure sensible experience. The presentation of a concept in intuition gives the concept meaning and significance. This presupposes the schema of the imagination that allows us to relate universal concepts to singular intuitions. Kant’s definition of schema of the imagination is «as a rule for the determination of our intuition in accordance with a certain general concept» (KrV, A141 /B180).

The strategy to solve the problem of the specific meaning of the contentful concepts (be they concepts of perception, or mathematical concepts) by resorting to schema of the imagination provides the key for determining the objective value of the *a priori* concepts of pure understanding. It is the intuitive domain (*Di*) which allows one to determine the objective value of concepts and hence their reference and meaning. Loparic identifies in *Di* three subdomains, namely, the subdomain of given appearances (*Da*), the subdomain of mathematical constructs (*Dc*), and the subdomain of the pure schemas of categories (*Ds*). The transcendental schema allows both realizing and restricting the pure concepts of the understanding. The mathematical construction of concepts by its pure schema is a clue for determining the objective value of the categories insofar as its function is analogous to the function of the transcendental schema. Kant’s theory of schematism assumes, in this sense, a central relevance in semantic interpretation because it is the key to the solubility problem or the problem of the semantic determination of the objective meaning of concepts.

The interpretation of the transcendental schema as a semantic rule was for the first time suggested by Robert Butts (1969), in his article *Kant’s Schemata as Semantical Rules*. Loparic cites it in the preface of his book without, however, commenting further on Butts’ original insight. Another great reference for transcendental semanticism is Alberto Coffa’s 1991 book, *The Semantic Tradition from Kant to Carnap*. Coffa does not recognize in Kant

the genesis of the semantic turn in contemporary philosophy, even though he concedes that it owes its origin to the responses that contemporary philosophers have given to Kant's semantic problems. He considers Kant as representative of a semantic doctrine that is still confused by making use of the notion of pure intuition, which will be eliminated from the posterior semantic conceptions. Loparic's interpretation is in fact a response to Coffa. In Loparic's words:

Coffa failed to understand what was most important in Kant's contribution to the theory of philosophical knowledge itself: his a priori theory of objective possibility concerning truth and falsehood in the realm of possible experience and the demonstrability or refutability not only of synthetic a priori judgments, but of synthetic judgments in general). (Loparic 2000, xix)

Unlike Coffa, Loparic considers that Kant's theory of concepts contains a very rich semantic approach. The semantic condition then requires for contentful concepts that «it has its reference and meaning in one of the three intuitive subdomains»: *Da*, *Dc* and *Ds* (2000, 174). This condition, which Loparic named the satisfiability condition, allows us to distinguish between empty concepts, which are not satisfiable in the intuitive domain and therefore do not correspond to any intuition, and "full" or fulfillable concepts, which refer to the objects of both pure and empirical intuition. Fulfillable concepts are both empirical concepts (concepts of perception and experience) and pure concepts (concepts of mathematics and categories of the understanding). Such concepts that fulfill the condition of satisfaction are called by Kant "possible concepts" and give rise to synthetically possible judgments, which are, as Loparic points out, the only ones capable of being true or false. In his words:

A consistent synthetic judgment (...) is capable of being true or false – and therefore justified or refuted, at least in principle – if two semantic conditions are fulfilled. First, the judgment must contain, in addition to logical terms, only objectively valid concepts. Secondly, it should be possible to interpret its discursive form by intuitive forms given in pure or empirical sensible intuition. (Loparic 2000, 203)

In this sense, metaphysics does not have a criterion of truth because its objects do not fulfill the condition of satisfaction, since they are in no way given to sensible intuition, whether pure or empirical. The concepts of pure reason are thus not semantically interpretable because, according to Loparic, «their referents are situated in the *Numeric domain* (*Dn*), which transcends all possible experience» (2000, 137). In contrast to them, the pure concepts of the understanding (which Kant calls categories) have objective value, since this is determined in the *Intuitive Domain* (*Di*). The pure concepts of reason (which Kant calls ideas) do not have objective value, since they refer to transcendental objects of the *Numeric Domain* (*Dn*). Taking the Appendix of the *Transcendental Analytics*, entitled *On the amphiboly of concepts of reflection*, Loparic draws our attention to the fact that Kant does not have a single concept of object or thing in general, but a range of different concepts of objects related to different domains. One should thus separate objects of intuitive representations from objects of merely discursive representations. This is one of the most essential aspects of transcendental semantics, which lies in the crucial distinction established by Kant between intuitions and concepts.

Loparic emphasizes that this difference between intuition and concept, so dear to Kant, is made explicit only through the semantic notion of *reference* to an object. As Kant states, in A320/B377: «The former is immediately related to the object and is singular; the latter is mediate, by means of a mark, which can be common to several things». It is therefore by the contrast between the notion of immediate and singular reference and

the notion of discursive and universal representation that the above difference is established, providing the central pillar for the solubility of the synthetic propositions of pure reason.

However, the satisfiability condition is sufficient for the solution of problems about sensible entities, but not for the solution of problems regarding the system of laws involving these entities. Thus, one should broaden the scope of the transcendental program of research on foundations of natural science. Loparic is then led to consider two Kantian canons of research on the problem-solving activity: a semantic doctrinal canon on the *a priori* principles of pure understanding and a heuristic canon on the *a priori* ideas of reason. The semantic canon is taken as the foundation of a transcendental theory concerning truth and objectual problems in the field of phenomena. The heuristic canon is taken as a system of fictions and heuristic maxims of thought that aims to solve problems concerning the systemic unity of theoretical constructs. Thus, Loparic points out that the types of problems to be solved by Kant's theoretical philosophy can be subdivided into two classes: one regarding objects and the other regarding systems (2000, 251). The former can be divided into empirical and mathematical and strictly concerns the understanding. The latter originates in reason itself, in its cognitive function, and aims at a greater expansion of knowledge, not of empirical objects as such, but of their systematic knowledge.

3. The heuristic canon of transcendental semantics

The problems introduced by reason, in its systemic cognitive function, differ from the objectual problems concerning the semantic relation between understanding, as the faculty of concepts, and sensibility, as the faculty of intuition. In its own function of problem solving, reason is forced to resort to non-empirical means. The scientific research itself, even in its empirical problem-solving activity, requires reason to introduce ideas and ideal objects from the *Numenic domain (Dn)*, which has an eminently metaphysical nature. Examples of such metaphysical concepts of reason are the idea of absolute space and the idea of fundamental forces that Kant presents in his *Metaphysical Foundations of Natural Science*. Nevertheless, according to the semantic doctrinal canon, these ideas cannot be regarded as objectively valid assertions and therefore have no truth value. They are fictions that transcend to every phenomenon and lay at the very nature of human reason. The work of reason sets as its major task the following postulate: «To find the unconditioned for conditioned cognitions of the understanding, with which its unity will be complete» (A307/B364).

Faced with such a demand, non-critical or dogmatic reason falls into the error of attributing objective validity or truth-value to non-empirical propositions that have a fundamentally heuristic function. The dogmatic interpretation of the postulate of reason thus transforms the suprasensible objects of ideas (e.g., the idea of simple substance, the idea of cosmological totality, or the idea of supreme intelligence) into objectively real entities as if they were data of the world. In doing so dogmatic reason produces antinomies and an endless series of philosophical problems that are *a priori* unsolvable. Critical reason, on the contrary, by interpreting in a non-realistic way the supreme principle of reason in its search for the unconditioned, is able to dissolve the semantic misconception. Even with this non-realistic value, the postulate of reason advances knowledge by producing theoretical systems of empirical laws. The semantic paradox is

thus dissolved by making a non-dogmatic and at the same time positive use of the metaphysical ideas of the *noumenic* realm. The heuristic canon takes them not as constitutive principles of cognition, but as regulative principles or heuristic maxims which have an eminently fictional nature. In the critical sense, as Loparic states, «our x variable (transcendental x) is not an object, but the unified system of empirical explanations of objects given in a possible experience» (2000, 273). The unity produced by reason for the empirical sciences is not an empirical unity of empirical data, but a systemic unity of an ordered whole that brings together mathematical laws and constructions, empirical causal laws, and also hypothetical metaphysical propositions.

Thus, the difference between the doctrinal canon and the heuristic canon is that the first is based on the constitutive rules of the understanding while the second on the regulative rules of reason. The rules of the understanding are objectively valid principles that determine either by exemplification or by intuitive construction in a precise way the empirical objects, axioms, and laws resulting from the operations they govern. The rules of reason, on the other hand, «do not specify operations conclusively» (2000, 115). Different from the rules of understanding, the rules of reason, according to Kant, are «subjective principles that are taken not from the constitution of the object but from the interest of reason in regard to a certain possible perfection of the cognition of this object» (A666/B694). Both rules perform different but no less essential functions for philosophy and science. Although the doctrinal canon has established that noumenal concepts are empty, that is, referring to nothing, they are not to be eliminated even from scientific activity. In the heuristic canon, such concepts are no longer problematic, and play a positive role in the service of the supreme interest of reason in the greatest possible perfection of cognition.

In this way, the unconditioned idea of the series of conditions, not being sensibly interpretable, becomes an insoluble problem only in the intuitive realm of possible experience. However, according to Loparic, it can be interpreted as related to ideal or fictitious objects, in order to promote through systemic research, the maximum extension of empirical knowledge. Non-empirical premises, such as the premises about fundamental forces, are then introduced for explanatory purposes within the scope of a systematic cognition of phenomena. They seek to promote not a first-order synthesis of sensitively intuitable objects, but a second-order synthesis, in order to bring together an aggregate of empirical laws so as to form an organic whole around the idea of nature.

This inclusive conception of the heuristic canon has direct consequences for the Kantian theory of schematism. We have to recognize within the scope of a broader interpretation that empirical knowledge admits two kinds of schematism: a real (transcendental) schematism, proper to the understanding in its determining use, and a schematism by analogy (symbolic), proper to reason in its reflective use (FM, AA 20: 204). As Loparic emphasizes, the “objective reality” of an analogically schematized idea does not arise from its reference to an object of intuition, but to a concept of a general thing of the *Noumenic domain*, in favor to promoting the maximum systematic unity of the empirical use of reason (B 698). Within this systemic framework, Kant then admits deriving the real object of experience from the fictional object of reason as its final cause. And only critically can one thus admit that empirical objects are to be considered “as if” they had their existence derived from a suprasensible cause. In addition to explanations based on efficient causality, Kant is led to consider “as if” explanations based on teleological causality and on analogically or symbolically schematized ideas.

The conception that the maxims of reason are interpreted as “as if” principles was first suggested by Vaihinger in his 1911 book entitled *The Philosophy of As If*. While acknowledging the role of “as if” maxims in the Kantian theory of scientific inquiry,

Loparic takes a more nuanced position than Vaihinger. The latter extends the notion of fiction beyond metaphysical ideas, considering that even mathematical, physical, and jurisprudential concepts are fictional constructs. Loparic is more cautious about the radicalism of Vaihinger's position, reserving the term fiction only for metaphysical ideas or maxims of reason.

Loparic points out that as fictions «some objects of thought can, however, be represented intuitively and indirectly by different kinds of intuitive data structures, called symbols and analogical schemas» (2000, 126). In §49 of the Third *Critique*, Kant considers the idea of reason as the counterpart of the aesthetic idea. Since the aesthetic idea is characterized as a representation of the imagination without a *concept* being adequate to it, the idea of reason is defined as «a concept to which no *intuition* (representation of the imagination) can be adequate» (KU, AA 05: 314). Kant here does not claim with regard to the ideas of reason that no concept corresponds to intuition, but that no intuition can be adequate to it. In this sphere, the game between imagination and intellect comes into play, producing symbolic or analogical schemas, in which the representations of imagination can be used only as analogies. However, ideas with noumenal referents can never be taken as legitimate assertions and always remain as undecidable propositions, that is, without truth value. They can only be interpreted as "fictional foundations" that are methodologically projected by reason to give meaning and unity to conditioned series ruled by mechanical or empirical causality.

In his third *Critique*, Kant introduces another intermediate discursive faculty: the reflecting power of judgment, which is precisely responsible for the analogical schematism. Kant then differentiates it from the determining power of judgment presented in the *Critique of Pure Reason*. Thus, it is possible to think of a double function of the power of judgment, either as determining, which connects imagination and understanding, or as reflecting, which connects imagination to reason, under the mediation of the understanding. Loparic defines it as a bridge faculty that, in its reflecting function, «can only count on discursive and regulative maxims to carry out [its] task» (2000, 116). Such maxims may be optional or necessary. Thus, not even science can dispense with the ideas of reason which as regulative maxims are necessary in any reflection about organized products of nature.

4. Conclusion

In conclusion, I would just like to emphasize two points of Loparic's project. The first one concerns the relations between the Kantian semantics and the semantics of the young Carnap. One of the advantages, in my view, of Kantian transcendental semantics, as reconstructed by Loparic, over Carnap's empiricist semantics lies precisely in its inclusion of the heuristic canon. If there are similarities between semantic theories of truth of Kant and Carnap, they can only concern the doctrinal canon. In his eagerness to eliminate metaphysics at any cost Carnap left aside the reflecting dimension that is essential both for the expansion and for the constitution of the organic unity of science. In his *Metaphysical Foundations of Natural Science*, Kant made clear that metaphysics is just as fundamental as mathematics for a complete development of the empirical science of nature. Loparic emphasizes this in the vein of authors such as Hans Vaihinger (1911) and Leonel Ribeiro dos Santos. I would like to add that transcendental semantics as interpreted by Loparic is much better able to understand philosophical problems in contemporary physics, in particular

quantum mechanics, than Carnap's semantics. The role of symbolic schematism, that Loparic introduces in the heuristic canon, is a fruitful reading key to approaching semantic problems raised by quantum theory (Kauark-Leite 2010a; 2010b; 2012; 2015; 2016).

Second, I would like to quickly point out the extension of Loparic's semantic reading beyond the framework of the first *Critique*. Although he did not develop in his book *A semântica transcendental de Kant* the extension of a heuristic canon in the context of other texts of Kant, this possibility is admitted in his article *Os problemas da razão pura e a semântica transcendental* (2005). He claims that the project of a transcendental semantics can be extended to practical and reflective propositions, including other Kant's writings such as *Groundwork of the metaphysics of morals*, *Critique of practical reason*, *The metaphysics of morals*, and the *Critique of the power of judgment*. Thus, in view of the completeness of a semantic reading of the critical project, *The metaphysics of morals*, for instance, could be read as a moral transcendental semantics, insofar as Kant's ethical theory is a theory about moral judgments, and ethical principles are synthetic *a priori* moral judgments. In this sense, the main question of Kant's moral metaphysics to solve is about "how are synthetic *a priori* moral judgments possible?" The solution should then be found within the framework of a transcendental semantics about the sense and meaning of judgments.

The significant difference between synthetic judgments about physical nature and moral synthetic judgments would lie in the fact that, «while the formers are applied to objects of cognitive experience, the latter are referred to freely doable actions, which are accessible only in an experience that, because it serves as the foundation of moral anthropology, could also be called moral» (2005, 125). In this sense, the semantic problem of the solubility or decidability of synthetic *a priori* judgments seem to require distinct semantic solutions since the judgments are of distinct natures. Synthetic *a priori* judgments concerning theoretical reason refer to objects which are sensibly intuitable by cognitive human subjects. Synthetic *a priori* judgments concerning practical reason refer to actions executable by free human agents. This would imply at first a dichotomy between a cognitive transcendental semantics based on the givenness theory, and a moral transcendental semantics applied to the acts of the free will of moral agents. Thus, in his effort to provide us with a contemporary reading of Kant's writings, Loparic preserves the classical Kantian division between theoretical and practical reason. The cognitive transcendental semantics he suggests, in which the schematized concepts of the human understanding are applicable to the objects of human experience, is apart from the ethical transcendental semantics of purely moral concepts which are not schematized and thus not sensibly intuitable.

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