KANT'S SEMANTIC TURN

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1. INTRODUCTION

In the opening sections of this paper I reconstruct Kant's project for a critique of pure theoretical reason by showing that in its initial formulation in the *Critique of Pure Reason* (1781) his aim is to make explicit the conditions under which problems of pure theoretical reason are *solvable*. The doctrine of the solvability of those problems demands an answer to the following question, which was considered by Kant the fundamental task of the critique of pure theoretical reason: how are synthetic theoretical *a priori* judgments possible? In other words, under which conditions can these judgments be said to be determinately true or false? This task is carried out in the form of an *a priori* theory of the reference and meaning of theoretical *a priori* concepts and of the truth of synthetic *a priori* judgments. I consider that this theory could and should be interpreted as an *a priori* or *transcendental* semantics.

Kant progressively extended his program of a critique of theoretical reason to philosophical problems in general. In accordance with that extension, the fundamental task of transcendental philosophy came to be the following: how are synthetic *a priori* judgments possible in general? In order to document the key aspects of this development of Kant's project, I will briefly comment on his views on the possibility of the synthetic *a priori* judgments of the Doctrine of Right.

What I have to say here is based on results previously obtained, some of which are mentioned in the footnotes below. The novelty here lies in grounding those results on additional textual analyses.

2. UNSOLVABLE PROBLEMS OF THEORETICAL REASON: THE MOTIVATION FOR KANT'S PROJECT OF A CRITIQUE OF PURE REASON

Kant's project of a critique of pure reason stems, as mentioned above, from his concerns about the capacity of human reason to solve its own problems. The opening page of the first edition of the *Critique* begins thus:

Human reason has the peculiar fate in one species of its cognition that it is burdened with questions which it cannot dismiss, since they are given to it as problems by the nature of reason itself, but which it also cannot answer, since they transcend every capacity of human reason. (A vii)

The kind of knowledge in question here is metaphysical knowledge of nature. Indeed, already in his pre-critical phase one of Kant's main concerns was the incapacity of traditional

metaphysics to provide a yes or a no answer to philosophical problems relating to what there is. According to Kant, this incapacity reveals itself the in contradictions and obscurities that are so common in disputes among philosophers.

An illustration of the contradictions of dogmatic reason is the famous Leibniz-Clark controversy on the properties of the material world taken as a whole. Those disputes are rightly taken to be the historical source of four groups of problems that Kant called "antinomies" of the pure theoretical reason. In the transcendental dialectic those problems are shown to be necessary problems of pure reason, and they are deduced from formal (logical) and material (semantic) principles of the traditional metaphysical dogmatism. The first antinomy, for instance, can be formulated as the problem of deciding which side of the following disjunction is true: either the world is finite in space and time or infinite in space and in time. Based on the principle of the excluded middle as it is traditionally understood, that disjunction is an analytic judgment. Yet, each disjunct can be reduced to absurdity – this is what Kant attempts to do in the proof that he provides. Thus, the effort of dogmatic reason to solve this particular necessary problem yields a violation of the principle of excluded middle, which is a law of reason itself. We therefore have here an example of the conflict of dogmatic reason with itself, which is indeed a contradiction.

An example of obscurities are the controversies regarding the course of human history. The problem here is to produce convincing reasons for choosing between the dogmatic thesis proposed by Epicurus, which says that the internal order of States and Nations comes about by random chance, and an alternative thesis – also dogmatic – that says that human actions follow a regular course which can take one of two directions: either "leading our species gradually upwards from the lower level of animality to the highest level of humanity", or "preparing the way for a hell of evils" (1784, Ak 8: 25 [p. 48]). These disputes can be reduced to deciding which of the following disjuncts is true: human history results from random chances which follow no rule or it follows certain regularities and conform to certain rules. With regard the second alternative, one still needs to determine whether history is directed towards the best or the worst, and how are best and worst to be defined.² This problem, which is not empirical but necessary and *a priori* – since it arises from reason itself as it deals with the issue of whether it is

¹ This paraphrase of the first antinomy is based on the reconstruction of its logical form presented in Loparic 1990. Kant's original formulation is the following: Thesis: "The world has a beginning in time, and in space it is also enclosed in boundaries" (B 454). Antithesis: "The world has no beginning and no bounds in space, but is infinite with regard to both time and space" (B 455). The problem consists in deciding which of the two alternatives is true.

² Philosophical disputes on this issue, which can be traced back to Epicurus and Plato, can take the form of theological discussions regarding whether we can know that human history realizes the designs of a creator, governor and judge of the world, or if it is a result of random chance and does not show any kind of rational meaning.

possible to determine *a priori* the natural process³ that brings about human history – and which remained unsolved in the philosophical tradition, is a typical instance of the obscurities into which the reason falls if not submitted to a critique.

3. THE THEOREM OF THE DECIDABILITY OF THE THEORETICAL PROBLEMS OF PURE REASON

The main goal of Kant's program of a critique of pure reason is precisely to avoid this kind of predicament. To achieve that goal he introduces a distinction between solvable and unsolvable problems by human reason. Indeed, Kant's critique of pure reason necessarily unfolds into a theory of the solvability (decidability) of the necessary problems of pure reason.

Kant begins with theoretical problems. The main result of his criticism of the problemsolving capacity of theoretical reason can be expressed in the thesis that it must be possible for reason to achieve

... certainty regarding either the knowledge or ignorance of objects, i.e., to come to a decision [entscheiden] either about the objects of its questions or about the capacity and incapacity of reason for judging something about them, thus either reliably to extend our pure reason or else to set determinate and secure limits for it. (B 22, my italics)

In other words, human reason must be able to decide with utmost certainty whether a theoretical problem of metaphysics is at all solvable, and if it is solvable, we should be able to find the solution. I shall call this thesis *Kant's theorem of decidability* of the theoretical problems of metaphysics.⁵ As a matter of fact, Kant applies this thesis to all theoretical problems, including non-philosophical and scientific ones.⁶ We can therefore speak of Kant's theorem of the decidability of theoretical problems in general, and of his generalized theorem of decidability.

Since traditional metaphysics does not raise the meta-problem of the solvability of theoretical problems – that is, since it remains *dogmatic* – it inevitably faces insolvable problems. Kant's new metaphysics, based on his theory of the problem-solving capacity of pure reason, has the distinctive feature of being able to guarantee that either a problem is solvable or that it can be shown with certainty and security that it falls beyond the bounds of pure reason. "[N]o answer is an answer", says Kant (B 507). Based on his theorem of decidability Kant proposes the replacing of

³ I am here considering the Kantian concept of human history as developed in his 1784 *Idea for a Universal History with a Cosmopolitan Purpose*. This naturalistic concept of history will be set aside by the later Kant, who favors a concept defined in the terms laid out in his 1797 Doctrine of Right.

⁴ This theory allows Kant to announce the end of undecidable disputes and the establishment of "perpetual peace" in philosophy (see Kant 1796).

⁵ A more detailed discussion of this theorem can be found in Loparic 2002, Chap. 1.

⁶ Non-philosophical problems are brought about by the constitutive principles of reason itself. They are therefore necessary. Scientific problems result from occasional concerns, and are therefore optional. The latter can be divided into pure (belonging to pure mathematics and physics) and empirical.

traditional metaphysics of nature, which provides undecidable answers to pseudo-problems, with a new set of metaphysical principles of natural science, presented in a work published in 1786 under this same title, which contains rationally justifiable answers to solvable problems.

4. DECIDABILITY AND TRANSCENDENTAL SEMANTICS

Which theoretical problems are solvable and which are not? Kant's answer is very simple indeed: "there is no question at all dealing with an *object* given by pure reason that is insoluble by this very same human reason" (B 505; my italics). Conversely, if "no object for the question is given", then "the *question* itself is *nothing*" (B 506, footnote). This means that "a question about the constitution of this something, which cannot be thought through any determinate predicate because it is posited entirely outside the sphere [*Sphäre*] of *objects that can be given to us*, is entirely nugatory and empty" (B 507, footnote; my italics). To say that a question is nugatory and empty is the same as saying that it uses indeterminate predicates, that is, concepts without contents within the domain (the "sphere') of objects of possible experience. I recall here Kant's famous dictum that "[t]houghts without content" – understood as being devoid of intuitive contents - "are empty" and that it is "necessary to make the mind's concept sensible (i.e., to add an object to them in intuition)" in order to make cognitive use of them in a judgment (B 75).

Now we have reached a very important point. As in contemporary analytic philosophy, Kant's semantic questions are *independent* of and *precede* those of epistemology. Obviously, a question formulated with thoughts without content is *unsolvable*. In other words, it does *not* admit an answer which uses determinate predicates and which is, for this reason, true or false in the sphere of possible experience. The solvability of theoretical problems can thus be essentially reduced to two more specific points: (1) Can concepts have content within the domain of objects which can be given to us? And (2) can the judgments used in the answers to theoretical problems have their truth or falsity determined within that same domain?⁸

There is no doubt that these problems belong to Kant's "transcendental logic". Unlike formal logic – which "abstracts, as we have shown, from all content of cognition, i.e., from any relation of it to the object, and considers only the logical form in the relation of cognitions to one another" (B 79) – transcendental logic is an *a priori* science concerned only with the laws of the understanding and of reason "insofar as they are related to objects *a priori*" (B 81). Transcendental logic indeed proceeds entirely *a priori*, without consulting experience. It uses the so-called

⁷ As we can seen, the thesis that concepts which are not sensified (*versinnlicht*) are empty is intimately related to Kant's conception of empty questions, a point rarely noted in the traditional reconstructions of his critical project.

⁸ For a more thorough analysis of Kant's theory of problems, see Loparic 1988.

"transcendental" knowledge by which we know "that and how certain representations," including concepts, "are applied entirely a priori, or are possible" (B 80; my italics). For this reason, transcendental logic can be interpreted as an a priori theory of the meaning of concepts and of the truth of judgments within the domain of interpretation comprising natural phenomena accessible to intuition. In the contemporary jargon, it is an a priori or transcendental semantics of the constructivist type. 9

It can be easily understood why an "aesthetic" is part of transcendental logic. Since a problem is solvable only if in its formulation we only use predicates that can refer to objects that can be given to us, the theory of the "givenness" of objects of knowledge is an essential part of the theory of determinate predicates. For Kant, an object is "givable" [dabile] – and, in this sense, possible – if it is accessible to experience, that is, if it can be given in external or internal sensible intuition; there is no possibility of an object being given to us, as Descartes assumes, in intellectual intuition. In the present interpretation, the theory that Kant calls "transcendental aesthetic" gives us the domain of interpretation of synthetic *a priori* theoretical judgments: the sphere of possible experience. ¹⁰

In order to clarify this point, let me quote an important passage which sums up essential aspects of Kant's requirements for concept formation:

For every concept there is requisite, first, the logical form of a concept (of thinking) in general, and then, second, the possibility of giving it an object to which it is to be related. Without this latter it has no sense [Sinn] and is entirely empty of content. (B 298)

Now, an object cannot be given to a concept but in empirical intuition. Though pure intuition can indeed precede the object *a priori*, even it "can acquire its object, thus its objective validity, only through empirical intuition, of which it is mere form" (*ibid*.).

Kant's theory of the determinability or possibility of predicates and judgments within this domain essentially follows the procedure by which both the reference and meaning of mathematical concepts and the truth or falsity of mathematical judgments are established. Kant writes:

One need only take as an example the concepts of mathematics, and first, indeed, in their pure intuitions. Space has three dimensions, between two points the can be only one straight line, etc. Although all these principles, and the representation of the object with which this science occupies itself, are generated in the mind completely *a priori*, they would still not signify anything at all if we could not always exhibit their significance in appearances (empirical objects). Hence it is also requisite for one *to make* an abstract concept *sensible* [*sinnlich*], i.e., to display the object that corresponds to it in intuition, since without this the concept would remain (as one says) without *sense* [*Sinn*], i.e., without significance. (B 298-9)

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⁹ An exhaustive study of Kant's transcendental logic as an *a priori* theory of the reference of concepts and of the truth of judgments within the domain of possible experience can be found in Loparic 2002.

¹⁰ Therefore, this is neither a question of empirical psychology, nor of *a priori* psychology.

Mathematicians traditionally meet this "requirement by means of the construction of the figure, which is an appearance to the senses (even though brought about *a priori*)" (B 299). In a sense, a construction is enough, since mathematical concepts like that of magnitude, are *a priori* in origin and so are "the synthetic principles or formulas from such concepts" (*ibid.*). However, mathematical constructions do not ensure, by themselves, the empirical employment of mathematical concepts, nor their use or relation to physical bodies.

This procedure of sensification (*Versinnlichung*) of concepts and principles – which starts with the construction of figures and magnitudes in pure intuitions and ends with an application of the concepts sensified in that manner to the empirical objects themselves – was practiced by mathematicians as far back as ancient Greece. Kant adapted it to produce, in the context of transcendental logic, an *a priori* theory of the reference and meaning of *a priori* theoretical concepts in general (philosophical, mathematical and purely physical). For example, it is impossible to give a "real definition" of a category, that is, we cannot even define a single one of them "without immediately descending to conditions of sensibility" (B 300). When this condition is eliminated "all significance, i.e., relation to the object disappears, and one cannot grasp through an example what sort of thing is really intended by concepts of that sort" (*ibid.*). In short, without rules for the application (*Anwendung*) of the categories to sensibility, it is impossible to show how "they could have any significance and objective validity" (A 242).¹¹

The theory of the sensification of the categories, the central part of which is the transcendental schematism, is complemented by a theory of the truth of both philosophical and non-philosophical *a priori* theoretical *judgments* (the latter being those mathematical judgments and pure concepts of the science of nature that Kant identified with Newtonian physics). This theory is likewise based on a sensification of those judgments. The central problem here is to determine the conditions under which the judgments that use determinate predicates are themselves *possible*, in the sense that their objective validity – their truth or falsity – can be determined within the domain of possible data. In contemporary terminology, the problem here is to find the truth conditions of theoretical *a priori* judgments within this domain. Therefore, according to the second edition of the first *Critique*, the "general task" (*allgemeine Aufgabe*) of transcendental philosophy is precisely the following: how are *a priori* theoretical judgments possible? With the progressive realization of the program of the critique of reason, the question concerning the possibility of metaphysics, pure

¹¹ In the original: "irgendeine Bedeutung und objektive Gültigkeit".

¹² See B 73. I take it as obvious that demonstrating the possibility of a judgment (i.e., that it can be true or false within the domain of possible experience) is not the same as demonstrating that it is true or false. The former belongs to the semantics (pure or empirical), the latter to epistemology.

mathematics, and pure natural science is no longer referred to the theory of mental faculties or moods. It is reformulated in terms of a theory of judgments.

Kant's solution to the general task of transcendental philosophy consists basically in saying that a judgment is possible if the discursive connection between the concepts stated in it can be suitably related to possible experience, that is, *sensified* in experience; in other words, if it can be presented (*dargestellt*) by means of a synthesis in intuition. Such a sensification is ensured either by examples or by *a posteriori* and *a priori* "constructions". *A posteriori* constructions are experiments; *a priori* constructions are products of the transcendental imagination, that is, they are *a priori* schemata, either "constitutive" or merely "regulative" (heuristic). For example, in the case of categorical theoretical judgments (of the form *S* is *P*) sensification provides an *intermediary third element* which enables one to connect the concept of the subject to that of the predicate. In the case of categorical *a posteriori* judgments, this third element is *a posteriori*. But in categorical *a priori* judgments (philosophical, mathematical or physical), besides being sensible and theoretical (cognitive), the third element must be *a priori*. This is precisely what a transcendental schema of a category amounts to.

Kant complemented his transcendental semantics with a theory of the *a priori* methods for solving problems. His methodology consists of a proof theory to which he adds an *a priori* program of scientific research that provides scientists with (i) procedures for setting up rational fictions that are useful in seeking and organizing empirical facts, and (ii) procedures for finding empirical explanations (explanatory hypotheses) for those facts. Kant's proof method is essentially the combined method of analysis and synthesis. ¹³ The characteristics of this research program change according to the nature of the problems involved. Just like philosophical problems, problems of pure mathematics and pure physics can only be solved by *a priori* procedures, whereas empirical problems in the field of natural science can be solved by factual research.

5. AN OUTLINE OF KANT'S SOLUTION TO THE FIRST ANTINOMY

It is within this semantic and methodological context that Kant provides a means, which he takes to be secure, for keeping reason from falling into internal contradictions and obscurities.

His solution to the first antinomy, for example, consists essentially of a "real definition" of the concepts used in his formulation, namely, world, time, space, finite, and infinite. These concepts are each interpreted within the domain of possible experience, according to the results

Kant e-prints. Campinas, Série 2, v. 2, n.1, p. 105-115, jan.-jun. 2007.

¹³ See Loparic 2002, especially Chap. 2.

of transcendental aesthetic. The concept of world is taken in the sense of a sensible world; the concepts of time and space are each understood in the sense of an *a priori* form of intuition; and the concepts of finite and infinite are taken as determinations of sensible time and space. None of these refer to the domain of things in themselves, as in dogmatic metaphysics. In the light of this semantics of the concepts involved, and with their sensification ensured, Kant shows that the thesis of the antinomy ("the world has a beginning in time, and in space it is also enclosed in boundaries") is false and that the antithesis ("the world has no beginning and no bounds in space, but is infinite with regard to both time and space") is true. This solution saves the validity of the principle of excluded middle, although only within the domain of possible experience, and keeps reason from contradicting itself.

The second problem mentioned above, regarding the course of human natural history, is solved by Kant in 1784 within the framework of his teleology of nature as it has been made explicit in the first Critique. Applied to history, this doctrine offers a certain number of "as if" principles according to which it is possible to conceive history as if it were a natural process happening with a purpose. In the present context, that purpose is conceived by Kant as being a (wise) plan of nature, the ultimate end of which is the realization of a public order based on a civil constitution capable of preserving itself as an automaton (as the solar system is). These principles, which are merely reflexive and non-determining – and thus neither true nor false – are suitable for being used as a priori guides (Leitfaden), i.e., as a priori programs of empirical research in the field of human history, having in view a systematic presentation of the process as progressing towards a specific rational end (1784, Ak 8: 30 [p. 53]). Within this program Kant rejects Epicurus' dogmatic speculation not for being false, but because it is incompatible with the "teleological doctrine of nature", which as mentioned above was justified in the first Critique as a formulation of the requirements that arise from the internal economy of human reason and not as piece of objectively true knowledge. The opposite thesis, which affirms that progress is progress towards the best, is accepted not as a determinately true judgment, but as a rational principle of reflection on what happens to the human species.

6. THE DEVELOPMENT OF THE PROJECT OF THE CRITIQUE OF PURE REASON

One of the first and most significant applications of the transcendental semantics and of the proof theory that is based on it can be found in the *Metaphysical Foundations of Natural Science* (1786). There Kant lays down rules to determine the "objective reality, that is, meaning and truth" of the fundamental concepts and propositions of the metaphysics of nature (Ak 4: 478). Kant

intends to render, as he says, "an excellent and indispensable" service to this metaphysics by providing "examples (instances *in concreto*) in which to realize the concepts and propositions of the latter", that is, examples in which "to give a mere form of thought sense and meaning [Sinn und Bedeutung]" (ibid.). The "realization" of the concepts and theorems of the metaphysics of nature is, in turn, the ground for the *a priori* proofs of the theorems which constitute the pure part of Newtonian physics as reconstructed by Kant.

Now, in the *Groundwork of the Metaphysics of Morals* (1785), Kant asks about the possibility of synthetic-practical *a priori* judgments of the categorical imperative type, formulated for the first time in this very work. Although he does not solve this problem there (his solution was only presented in his 1788 *Critique of Practical Reason*, within the context of the theory of the fact of reason), ¹⁴ he does take a first step in an attempt to include all pure philosophy within the domain of transcendental philosophy. This means that Kant raises here the problem of the possibility of synthetic *a priori* judgments in general. Indeed, in his later writings, Kant formulates and tries to solve the problem of the possibility of synthetic *a priori* judgments of aesthetics (those pertaining to taste and the sublime), as well as those of the doctrines of right and virtue, and of history. ¹⁵

To substantiate this thesis I would like to briefly analyze some aspects of Kant's treatment of the problem of the possibility of synthetic *a priori* judgments of the doctrine of right, which determine whether something is legally mine or yours. According to the later Kant, practical philosophy consists of a "metaphysics of morals" and of a "moral anthropology" (1797, Ak 6: 217). The first part contains "objective" *a priori* principles about "freedom in both the external and the internal use of choice" (1797, Ak 6: 214), which were dealt with in the *Metaphysical First Principles of the Doctrine of Right*. Kant sketched only an outline of the second part, moral anthropology, establishing that this discipline should deal with the "subjective conditions in human nature that hinder people or help them fulfilling the laws of a metaphysics of morals". It should also have to deal with "the development, spreading and strengthening of moral principles (in education in schools and in popular instruction), and with other similar teachings and precepts based on experience" (1797, Ak 6: 217). ¹⁶

This distinction is new relative to the first *Critique*, where Kant opposes practical philosophy, especially pure moral philosophy – that deals with principles "which determine action

¹⁴ This thesis is presented and defended in Loparic 2001.

¹⁵ This point was discussed in detail in Loparic 2003b.

¹⁶ It is clear that moral anthropology, as designed by Kant in his doctrine of law, should be distinguished both from empirical psychology and from "physiological" anthropology. The latter, as part of the theoretical science of nature, "concerns the investigation of what *nature* makes of the human being", whereas the former belongs to pragmatics, a science whose object is what *man*, "as a free-acting being makes of himself, or can and should make of himself" (1798, Ak 7: 119).

and omission a priori and make them necessary" - to anthropology, conceived as an empirical theory of a scientific character. He states that "the metaphysics of morals is really the pure morality, which is not grounded on any anthropology (no empirical condition)" (B 869-70). This thesis is maintained in Metaphysical First Principles of the Doctrine of Right, which was published as the first part of the *Metaphysics of Morals* (1797). In this work, however, the problem of the ground and validity of the a priori principles of the doctrines of right and virtue is formulated according to the results obtained in the Critique of Practical Reason (1788), and requires the demonstration of the *immanent* applicability of practical laws, i.e., of the possibility that these laws are effective within the domain of actions actually executable by free human agents. This change is reflected in the observation that "a metaphysics of morals cannot be based upon anthropology but can still be applied to it" (1797, Ak 6: 217). One of the most important novelties of the doctrine of law, inspired by the second *Critique*, was precisely that of adding to the *domain of possible objects* specified by the first Critique, the domain of freely executable actions, thus opening the way for an a priori theory of the application of the concepts and laws of the metaphysics of morals to the latter domain, that is, for an a priori semantics as an essential part of Kant's practical philosophy. This is an indispensable task. Kant writes:

But just as there must be principles in a metaphysics of nature for applying those highest universal principles of a nature in general to objects of experience, a metaphysics of morals cannot dispense with principles of application, and we shall often have to take as our object the particular nature of human beings, which is cognized only by experience, in order to show in it what can be inferred from universal moral principles. (1797, Ak 6: 216-7)

Accordingly, the constitution of a metaphysics of morals, as put forth in the *Metaphysical First Principles of the Doctrine of Right*, implies as a necessary sub-task that of sketching the principles for applying the fundamental propositions of the metaphysics of morals to the domain of human actions.¹⁷ This demand is conceived by Kant as being exactly parallel to the task, carried out in the *Metaphysical Principles of the Natural Science* (1786), of attributing sense and meaning to discursive structures ("forms of thinking") of the metaphysics of nature.¹⁸ This similarity does not eliminate, but rather underscores a significant difference between Kant's theory of "sense and meaning" of natural and moral *a priori* concepts: whereas the former are interpreted based on the objects of cognitive experience, the latter refers to freely executable actions accessible only in an experience that, as it serves as the grounds for moral anthropology,

¹⁷ The question of the possibility of synthetic *a priori* judgments of law was treated in detail in Loparic 2003b.

¹⁸ On this parallel, see Loparic 2003a.

can also be called moral. This opens up a fascinating field of study, still very little explored but essential for completing a semantic reading of Kant's critical project.

REFERENCES

