Foundationalist or Fallibilist: the epistemological ambiguity of Kant's theory and an answer against fallibilist oppositions to Kant

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Introduction

Many twentieth-century philosophers provided little support to the aims of transcendental philosophy. The central part of this mobilization was directed against idealism and the doctrine of *a priori* syntheses, although without prejudice to the more general and weak foundationalist ambition to provide empirical foundations for knowledge. To this campaign belong philosophers who were known for the seminal discussions that gave rise to analytic philosophy. Gottlob Frege, Bertrand Russel and Rudolph Carnap are included here. Their doctrinal presuppositions included the idea that philosophy is analysis of language. We could, of course, try to subsume that line of thought in a larger philosophical tradition determined by some common methodological elements shared by its members: It is the tradition in logic and philosophy founded on logic, which reached a climax with Frege and was continued by Russell, Tarski, Carnap and the other members of the Vienna Circle. According to Hintikka: "the unity of this tradition is rather in the logical instruments employed by its members, than in any doctrinal continuity" (Hintikka, 1994, p. 124). We will mention them without deepening the content of their criticisms and positions, although the dialogue between them and Kant's thesis was one of the most intense of the twentieth century[1]. We have decided to go this way, because our work intends to dialogue with a different strand of Kant's opponents.

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[1] According to Hanna: "(1) all parts of analytical tradition from Frege to Quine explicitly exemplify, or at least implicitly presuppose, a dual preoccupation with semantic issues and the logical-linguistic theory of necessity; (2) there is the concept of analytic judgment at the heart of these widespread semantic-logical-linguistic-modal concerns (…); (3) The origin of this seminal concept can be found in Kant's *Critique of Pure Reason*; and (4) the

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The other part of the anti-kantian campaign that we want to consider, and that will be the one with which we intend to dialogue in this article, converges with a broader tendency: it begins with the philosophers of the early and mid-twentieth century who systematically questioned the foundational roots of science. This challenge comes both from a critique to the concept of analyticity made by Quine (1969), to the crisis of methodology influenced by not that recent pragmatic theories, whether they were straightforward instrumentalists or simply philosophers committed to an assessment of validity of science that resorts to the psychological and sociological factors involved in accepting a theory. As an example of the last kind, we can mention Thomas Kuhn (1922-1996), and a whole new trend of relativism created in the theory of science, as well said by John Taylor in the article *Science, Religion and Truth*:

> …it has been argued by Kuhn and others that even our best-established scientific paradigms can come to be called into question; that the idea of comparing paradigms with reality is highly problematic and that we therefore are obliged to revise our picture of science as an enterprise in which there is progress towards objective truth. Some have even called for a new picture in which objectivity, rationality and truth play no part in explaining the nature of science; scientific activity is to be explained purely by reference to extrinsic, sociological factor. (Taylor, 2014, p.2)

In any case, these philosophers form a block, which in many aspects composed a movement of reaction to logical positivism, although the same block also criticizes the general project of Kant's *a priori* theory on the form of knowledge – his transcendental idealism.

The lack of support to Kant from the second group of philosophers coincides with a campaign inclined to an epistemological fallibilism. There is, however, a parallel trend to these tendencies with which we wish to dialogue more particularly. It is called epistemological naturalism and its origin integrates the flow of anti-foundationalist tendencies: strictly speaking, the naturalist thesis, despite its earlier expressions, has its modern origin in the epistemological speculations of Quine, particularly in its epistemological fallibilism integrated to a general fallibilist vision of logic, derived from the idea that there is no *a priori* border between so-called questions of meaning and questions of fact. According to Quine in *Two Dogmas of Empiricism* "f*or most purposes extensional agreement* is the *nearest approximation* to synonym that we have to worry about" (Quine, 1980, p. 239). Therefore, when we talk about meanings we are not talking about some independent entities. We are actually talking about our languages or notations ability to paraphrase extensional approximations. Since different languages and notations have different degrees of richness or different devices for classification,

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thematic development of analytical philosophy from Frege to Quine was determined in a very important way by how it dealt constructively or destructively with Kant's seminal concept." (Hanna, 2005, p.180)

the only way to translate a language for another is empirically finding these extensional approximations. There is not something as an intensional entity providing the precise and determined basis for those translations. This thesis has the following consequence: the difference between an analytic and a synthetic truth should not be traced by pretentious metaphysical doctrines more than by other empirical theories, such as behaviorist psychology or the science of translation.

In practice, Quine's argumentation in *Two Dogmas of Empiricism* entails that statements of empirical science should not even be the subject of an analysis, since they support each other and interact in a holistic way, that is, they are not structured as simple truth function constructions from atomic statements. Supposing that science can still make the best of an epistemological analysis, it must renounce its metaphysical and *a priori* weight, becoming naturalized. This naturalistic conversion of modern philosophers of science coincides with an attitude of general respect for scientific method, parallel to a distrust – already matured by positivism – against the style of orthodox philosophical and epistemological inquiry:

> The task of philosophy is semiotic analysis: the problems of philosophy do not concern the ultimate nature of being, but rather the semiotic structure of the language of science, including the theoretical part of everyday language (Carnap, 1943, p. 250).

This is a good reason why even Rudolph Carnap projected his normative precepts corresponding more faithfully to the way – he supposed that – the scientist actually behaves methodologically, that is, without including skeptical threats or questions that were not internal to the theory in his set of problems. This philosophically indifferent attitude implied he had to ignore the most disastrous philosophical consequences of the problem of induction. In fact, to ignore them – or rather, to include induction as a method of assessing degrees of legitimate confirmation – was a side effect and an embryo of naturalism. In this naturalized version, induction would not entail philosophical skepticism.

It is interesting to note that this maneuver saves Science of having to respond to skeptical suspicions and metaphysical problems, but just at the cost of reducing the weight and influence of the material given of experience to discover possible manipulations, adjustments and defects of a scientific theory – which decreases its weight to evaluate the validity of such a scientific theory. So the "empirical data" is covered with a harmless nature. The positivist and naturalized maneuver is, therefore, not only a critique of metaphysics, but also a new and anodyne approach of empiricism. The empirical data is only admitted by its capacity to fit into the theoretical block through a degree of acceptability, but not absolutely by its contribution to show the weaknesses of the theory.

According to Karl Popper, the basis of scientific demarcation should be its capacity to be falsified – his celebrated epistemological formulation seeks to

prevent a theory from only appealing to facts when convenient. Therefore this demarcation helps to give back to the empirical data its ill-treated status as a criterion to judge knowledge. It could be said that Popper has greater respect for the decisive function of empirical data in the evaluation of science than logical empiricism itself. Of course, I mentioned Popper for his remarkable divergence from logical positivism and his even more remarkable rejection of induction as a scientific method (see Popper, 1980, 3). In fact, this is not a problem restricted to the disagreement between Popper and logical positivism. Rather, it reminds us of the difficulty of eliminating the challenging skepticism inspired by our psychological material data in the course of an empirical research, a theme made famous by David Hume. Going against the naturalistic stream, this memory reconnects the epistemological discussion to more fundamental questions of philosophy. It also shows how it is not so harmless to underestimate the connection of epistemology with more traditional philosophical skeptical difficulties and even with metaphysical questions.

It is a peaceful consensus to oppose the just mentioned campaign of scientific fallibilism to the kantian doctrine, traditionally considered as a foundationalism. And it is also not uncommon to oppose the naturalistic attitude to the Kantian position in the *Critique of Pure Reason*. In this article we intend to investigate how Kant's doctrine offers to contemporary philosophical discussion a point of view where the problems of traditional epistemology cannot be detached from more radical philosophical problems. That way we will be able to provide a contemporary answer to traditional naturalistic and fallibilist critics of transcendental philosophy.

An ambiguity in Kant's Doctrine

The Transcendental Deduction of Categories, placed in the climax of the text of the Analytical Deduction, symbolizes an irreversible sheer in philosophy, a revolution (as the Author himself calls it) where the subjective forms used to interrogate nature turns into the founding principle of experience itself. The argument presents as premise the transcendental necessity to postulate the synthetic unity of the representational chain, through the categories that perform this unit, in order to secure the authenticity of a claim to possible experience, instead of a mere flow of disconnected psychological facts. The so called *synthetic unity of apperception* represents the content correlated to the act of representing, around which the representations can form a network connected by a main theme. Without this synthetic unity, representations would be nothing but acts without content. "Nothing to us" is the expression employed by Kant to classify these

representations in order to say that our mind can only host knowledge that is made out of experience made possible by our own formal setting. This postulate reflects the subjective orientation that is the trademark of the *copernican revolution in philosophy* (*KrV*, B xvi). According to it, even the general debate regarding causality is subsumed under the most general problem of the possible ways of the subject to unify representations under his pure concepts.

However subjective and no-ontological this turn may be, there is still a suspicious left: Kant uses the resource to the subjectivity in order to recast the discussion about objectivity through a non-dogmatic perspective, but this subjectivity is composed of forms and faculties so strict and stable that it is hard to not think about this maneuver as a strategic evasion made to preserve a embarrassed foundationalism, a convenient retreat of a repressed and revengeful rationalism. In the worst scenario, it seems that Kant opens the back door to metaphysics through his transcendental notion of subjectivity.

We are inclined to think that this suspicious is not unjustified, although it is increased by a fundamental ambiguity that is placed in the formal doctrine of categories. And this ambiguity is the responsible to make Kant's argument unsatisfying both to who expected an extreme fallibilism, and to those that would prefer a foundationalism as the outcome of the Transcendental Deduction argument. The betrayed fallibilist, therefore, can at least comfort himself knowing that the foundationalist is also not entirely pleased with the Kantian consortium between subjectivity and objectivity, or between the formal and the material aspects of knowledge. And that ambiguity remains decisive if the epistemological foundationalist is also a metaphysical realist. To the later, the type of realism that could be derived from the Transcendental Deduction and from the Copernican Revolution (in philosophy) is a diminished realism, an anodyne realism, deflated from metaphysical commitments that could guarantee the foundation of knowledge. The fact that Kant's theory is idealist only in the formal aspect enables the author to establish himself in an ambiguous frontier between the epistemological foundationalism and fallibilism.

We can strengthen this hypothesis by invoking Alfred E. and Maria G. Miller preface inside Peter Plaass's commentary of Kant named *Kant's theory of natural science*, which shows that the transcendental theory of the formal and subjective conditions of knowledge is equally strange to the modern non foundationalist strands "…influenced by Quine, Kuhn, Lakatos and others from a pragmatic perspective ... as well as those rooted in a hermeneutical approach" and also to the modern "still foundationalist strands that are empiricists in their fundamental assumptions". According to the authors: "Kant's attempt to provide an *a priori* basis for natural science seems equally foreign to both" (Miller; Miller, 1994, p.142).

When those commentators begin to better exploit this double resistance, they realize that there is resemblances between the *Deduction* doctrine (which is also the doctrine of the whole Transcendental Analytic and the essence of the argument of the whole Critique) and the first doctrines (Kuhn, Lakatos), although, if Kant is non-foundationalist in that sense, he is still foundationalist in another sense. For from the point of view of the benefit for the scientific practice, the theory of the pure forms of knowledge considers "how the behavior of the scientist in the project, conduction and interpretation of the tests is influenced by his scientific and theoretic paradigm (his horizon of understanding) and by the pragmatic limitations to deal and to evaluate his objects" (Miller; Miller, 1994, p. 155). To optimize the idealization of a case, the Kantian thesis that all data have to be subsumed under categories would amount to a recommendation that the scientist should be able to weight his evidences in the most homogeneous manner possible, in order to avoid that the contribution of the material part of his evidence would be merely approximate, which would mean that those same evidences could contribute equally to different and incompatible paradigms. This homogeneous weighting of evidences would be possible whenever experience is made possible by the unity functions given by categories, the formal part of knowledge. So Kant's forms of knowledge would work as a quite legit methodological instrument made for selecting and distinguishing true theories from false and contradictory ones. In this sense, Kant's theory would allow him to claim a foundationalist and rational theory without metaphysical assumptions.

And this foundationalism without metaphysics could also lead to a realism without metaphysics. Now that we establish a fair correlation between Kant's doctrine and foundationalism, it is worth to mention that it remains a non-obsolete familiarity between that same doctrine and fallibilist theories:

> As we have seen repeatedly in the introduction, Kant's central premise for providing apoditical grounding for science (Physics) is the necessary and universal determinations of the object of scientific inquiry, which are in general identical to the necessary conditions to have experiences of these objects. Focusing on this aspect, the parallel with the paradigm-dependence theory of scientific knowledge and the hermeneutical analysis of understanding becomes evident. (...) in both cases the pre-structure of the possible experience constituted by the necessary conditions imposed on the one who has experiences, so that he can understand them, determines what is provable in general ...". (Miller; Miller, 1994, p.143).

But if this is so, Kant is exposed to a fallibilist interpretation, for both the theory of paradigm dependence, which can be relegated to Thomas Kuhn, and that of the hermeneutical analysis of knowledge, which we can see in Richard Rorty's philosophy, "suffer from the inability to account for the stability or effectiveness of paradigms or horizons that largely determine what it is to be a possible experience" (Miller; Miller, 1994, p.144). And of course this is only the tip of a new problem:

the ontological question about the modes of the Being is eliminated but the new question about how to organize the reception of the data is inserted. The new problem, namely, about how to organize secure methods of structuring adjustments between our theories and the sense data, is not less polemic. After all, the question remains: what decisive fact should influence the scientist to adopt the Kantian categories before any others?

Why there is no technical answer to the problem of foundationalism in the kantian doctrine

We have seen that Kant's theory avoids any simple answer. In other words, that means there is no formula or technical formulation that could be used to solve the problem of knowledge in Kant. The recommendation that one should follow the rules given by categories remain superfluous unless we discuss all the transcendental nuances of the Transcendental Deduction, namely, the notions of subjectivity and consciousness as they are supplemented by notions of unity of synthesis and apperception. Kant's categories alone by themselves do not work as magical devices to achieve knowledge. For there is not very good reasons given by Kant for the preference for a set of categories more than another possible one. So the transcendental deduction remains useless to a scientist trying to employ it to perfect his practice. This is not a casual result. Kant doesn't give more substantial answer to the hope of foundation to knowledge because this is not what his theory is projected to do. Kant is not in front of a methodological problem. His problem is the philosophical consequences of certain methodological attitudes, for example: skepticism. We can say that, for him, if the methodological behavior of the scientist were the same as that of a regular empirical subjectivity, that would harvest evidences as a mere manifold of determinate matter, he will face only approximate *a posteriori* outcomes and consequently would not escape from skepticism. This kind of methodological attitude would amount to leading the scientist to the problem of relativity of scientific paradigms.

The other possible consequence is that this methodological attitude amounts to the confusion of the object of the theory with *things in themselves*. Let's call it the dogmatic methodological attitude. This would virtually save the scientist from a relativistic or skeptic outcome, but the alternative outcome is no less problematic: he will fall into a logic of illusion or dialectics. For as long as he confuses his private psychological data with the things in themselves, he will put himself in a situation where it is impossible to review his knowledge in a conditional way, i.e, according to shared rules of understanding. Therefore, his set of unconditional knowledge would be also impossible to be discussed in the light of competitor

theories, and the outcome would be a dialectical position of pure reason. In this dialectics, all discussion would be processed in antinomical or paralogical ways, and no consensus, refutation or any other form of reasonable agreement would be possible in science. The radical foundationalist scientist therefore, would condemn science to a condition similar to old scholastic metaphysics, or even worse: the condition of mythological/superstitious views of the world.

Philosophically speaking, this dogmatic methodological approach would create the authoritative posture of someone that does not admit the investigative questioning of his own research results. And this would lead to a problem that is even more intricate than the problems that arouse from skepticism. It is worse and more intricate than the technical problems of induction, for induction at least can serve as an approximate and temporary way of knowledge that do not suppress all hope of finding better results in the future of the investigation. The dogmatic methodological attitude would entangle the researcher in dogmatic illusions even worse than the simple technical difficulties in proving whether all the crows are black or not.

In refusing to treat the problem of knowledge as a technical problem of methodology, and by adopting a supervision approach of the philosophical consequences (dogmatism and skepticism) of certain strategies of collecting data and attempts to adjust it to our understanding, Kant has the merit of seeing the transcendental profundity of certain errors. This transcendental profundity is reflected in the dialectical nature of those errors. We have seen how the dogmatic approach would result in a dialectical problem. But this is also a menace for the skeptical approach. To be fair, even Hume, when he questioned the causality and uniformity of nature through his seemingly empirical and natural discussion of psychological habit, did not fail to make a penetratingly philosophical inquiry about the ability to make objective*, a priori* synthesis. For in this apparently methodological doubt one already guessed a questioning of the global unity of the laws of science and, consequently, a questioning of the scope of the experimental foundation to replace the metaphysical question about the Being. The problem about the limits of experience to found secure causal knowledge is philosophically radical, and it is not a mere technical problem that could be answered in the future by a better technology (or a better set of algorithms) to observe crows and nature. And Hume chose to answer to this penetrating philosophical question with a skeptical attitude. It was not by chance that Kant foresaw in the premises of the Scottish philosopher the driving force of the anti-dogmatic part of his work. Inside the more recent circles of discussion, however, the problem of Hume was interpreted as a mere technical methodological difficulty, converted in the problem of induction, and its philosophical reach was dramatically reduced. Although it keeps generating countless controversies in actual philosophy, those approaches fail to see the germ of the problem about the thing in itself. They still did not awake

from the dogmatic dream. This attempt to deflate scientific problems from any philosophical accounts was, actually, the true aim of logical positivism. That's why the problem of induction, for them, doesn't even lead to skepticism. The unpleasant results of some methodological strategies of science would only lead to skepticism if there is also the expectation that the scientist have to take a side in philosophical discussions. But logical positivism and epistemological naturalists do not demand something of this sort from scientists. Thus, for epistemological naturalism – and for logical positivism – the problem of induction is only a technical casual difficulty and not a philosophically interesting problem.

This last suggestion is a little bit risky, for one could ask, first of all, what exactly would deprive a technical theory of methodology, or a meta-science, of the title of being philosophically interesting. We can answer that by noticing that the new epistemological approaches match a tendency to naturalize epistemology. And the naturalization of epistemology coincides with a movement of progressive reduction of the challenging factor of key-problems of traditional epistemology: such as the problem of induction or causality, that is reduced to a mere technical problem that shouldn't be philosophically discussed, but rather be accounted for inside the practice of each scientific research as regarding the degree of truth or the degree of empirical confirmation. Therefore, the modern meta-scientist reduces the importance of science itself as an interesting practice to be evaluated philosophically. To him, this is by the way an advantage: it is a benefit to purify science from philosophy, cause this would amount to a purification of its old metaphysical and dogmatic remnants.

To Kant, on the other side, this is not a danger: his critical philosophy is able to keep the philosophical weight of the scientific problems without a regression to dogmatic metaphysics; although this is the very source of the epistemological ambiguity we could spot in the first chapter of this article: the impossibility to fit in Kant's theory in a discussion between foundationalism and fallibilism. Kant kept his epistemological investigations very much connected to the general problem of metaphysics, contrary to the modern approach of meta-science and naturalistic theory of science. More than that, Kant kept his epistemological accounts intimately connected with an investigation of possible forms of transcendental problems, i.e, dialectical problems whose solutions are not technical: it demands a certain philosophical critical attitude. All of this helps to separate Kant's approach from those of the modern theory of science (and meta-science). Kant's theory of knowledge is more than a simple technical problem aimed at creating formulas to help scientists to achieve better results or better beliefs about their objects. It is, actually, an investigation about the possibilities of reallocating metaphysical types of reflection inside the *canon* of a critical and transcendental approach.

The nature of the epistemological ambiguity of Kant's theory

We will start this chapter by coming back to one of the initial pronouncements: Kant was ambiguous regarding his position between foundationalism and fallibilism. Now we add that he was not ambiguous by accident, nor was this the result of some deficiency or distraction. The infrastructural problems that the discussion of (naturalistic) theory of science offers to host Kantian questioning are inescapable: for within an epistemology reduced to mere meta-theory about knowledge the problem of the incognoscibility of things in itself is dissolved in a collateral theme, a trivially methodological theme, namely, the theme regarding how the scientist presupposes the trustfulness of something permanent while he is leading the tests of the relevant evidences for his theory. But this can be a problem that ranges from the types of rules he admits to use, to the state of his mental faculties in the morning or afternoon, to the conditions of the lab he has at his disposal or to the financial situation of his research. Even if we remain attached only to the first problem (the rules he admits to use in leading his research), it is undeniable that we lose certain *aporetic nuance* that is the trademark of philosophical problems. Therefore, being a fallibilist or a foundationalist is only a contingent question of adopting a less or more reliable methodology, and it has nothing to do with the adoption of a philosophical doctrine.

On the other hand, Kant's problem – the problem of the incognoscibility of the thing in itself – is not an empirical or technical difficulty. It is neither a tradition of errors and problems that could be tracked psychologically, or anthropologically, something that could maybe have been inoculated in us as a European cultural disease, a contingent aspect of our knowledge and ignorance that perhaps wouldn't have been posed as a problem by pre-columbian tribes. It is, actually, a problem of another nature. The question raised by the *Critique of Pure Reason* is the center of a crisis of reason itself, and its unavoidable character expresses the necessity of a critical and transcendental attitude that transcends any type of methodological or technical solution.

To be fair, the contribution of Kant's theory of representation to an answer about the possibility of validity or legitimacy of knowledge – the answer whether he is a falibilist or foundationlist – or the contribution of his theory to helps one to take a metaphysical position regarding the existence of the external world, has a contextual complexity that can only be understood by the means of an enquiry of the elements of transcendentalism, and an enquiry of the particular types of realism and idealism Kant is fighting against or agreeing with.

This evident lack of density in Kant's possible answers to meta-scientific problems is a symptom of the fact that any theory of knowledge and epistemology, if detached from its philosophical implications, are incapable of fitting in Kant's

position. Those discussions do not provide an appropriate ecosystem to assimilate Kant's interests. That's why, if we force to make it fit, i.e, if we plainly demand an answer, we are going to reach the inconvenient ambiguous answer where Kant is both falibilist and foundationalist, or an "almost-fallibilist" and "almost-foundationalist". And according to the metaphysicial point of view, he would be an "almost-realist" and an "almost-idealist". His realism is reduced to a realism of immanent phenomena of consciousness, while his idealism is reduced to a forbidden rule against dialectic or transcendental interpretation of reality. Kant's idealism does not forbid empirical reality. If we try to give an intermediate account to the doctrine, we stay at the same place: we would only denominate the theory an "intermediate" theory, or, as Karl Ameriks (2012) puts it, an "in between" doctrine, instead of looking for a broader contextual sense that could subsume this intermediate position and turn it into a definite position. If what we are looking for are tricks of rhetoric, there is no better expression to provide that than the one used for Kant: "transcendental". When we qualify idealism as "transcendental" we are simply surrendering to a rhetorical game: for there is nothing strictly or exclusively idealist about a transcendental idealism. The transcendental qualification serves only to express the intermediate (in between) position of Kant. But of course this expression has another utility: let's not forget that with this term Kant manages to save a position for philosophy that does not belong to a regional discussion and does not allow itself to be kidnapped by empirical science. Here its character is more than that of a palliative. It is a way of temporarily concealing that the doctrine belongs to a broader sphere of discussion. It is also an evasion maneuver in order to engulf that sphere in a single word – transcendental – that sometimes resembles the use of a magic rhetorical elixir:

> What remains of the critique of metaphysics in the absence of the metaphysics is only some foam on the surface of language, plus the impossibility of deciphering quite a few Greek or German words along with the impossibility of renouncing them. (Lebrun, 1993, p.692)

Conclusion

Neither foundationalist nor fallibilist

The epistemological ambiguity of Kant's theory justifies itself by the fact that it preserves a position that values the radical philosophical weight of the question about the possibility of objective knowledge, now understood as the "transcendental weight" of this question, even if, in order to do that, Kant had to give up an epistemological position that would help to make technical and

methodological decisions inside the scientific practice. In that regard we can't say whether Kant is a foundationalist or a fallibilist. The problem of the *thing in itself* is the focus for dialectical problems and not a technical problem sensible to be solved by a contingent discovery or in the course of an empirical research.

Indeed, Kant's epistemology seems quite vague when interrogated by modern naturalistic philosophers of science or meta-science researchers, that are looking for a theoretical position about nature and validity of science that would be able to be decided in the same way as the empirical questions of the theories they study. But Kant's epistemology drifts indecisively between fallibilism and foundationalism due to the simple fact that it can't get rid of its transcendental nuance, that links it to radical philosophical discussions and preserves it from being kidnapped by epistemological methods reducible to a simple meta-theory of science or to a naturalist epistemology.

The "transcendental" terminology invokes Kant's ability to use instruments from epistemological discussions without reducing them to a mere technical discussion of scientific methodology, even if that discussion belongs to a meta-theory, and even if it is *a priori*. Just being *a priori* is not enough to capture the "transcendental *a priori*" meaning: it is necessary that this *a priori* be *formal*. In other words it is necessary that it is divorced from the matter of a specific regional content. A meta-theory of science or a naturalistic epistemology could be *a priori* and even then it wouldn't be tuned to Kant's thesis. Because it could remain approaching knowledge and science as the matter of a regional research.

What distinguishes Kant's epistemology from a simple meta-theory is that it:

> …shows, first of all, a fundamental shift on the very model of delimitation of the problem of science as an important philosophical phenomenon (…). This is a project of philosophy for which the question of knowledge is not yet a specific region of the totality of the possible philosophical set of problems, but that it identifies entirely with it. (Siemec, 2003, p.109, my translation)

The limitations of fallibilist critics to Kant's theory

The importance of the methodological question about scientific validity and efficiency cannot be dismissed, although the formal-transcendental character of the question about "possible experience", plus the incognoscibility of the thing in itself, suggest a connection to questions regarding "formal conditions", "subjectivity", "consciousness", employed in the transcendental deduction in order to prove the possibility of synthetic *a priori* judgments. Those last questions have the merit of preserving the characterization of the problem of knowledge as, rather than a mere technical problem of meta-science, an important philosophical phenomenon (although not metaphysical).

Transcendentally deducing categories, therefore, is diametrically opposed to a natural, empirical deduction. However, it is also diametrically opposed to a dogmatic deduction. The way in which Kant's categories serve the purpose of empirical science is always external to science itself, so that the concepts of revision and correction that can be expected from all other regional science sectors do not apply to it. Therefore, critics coming from a fallibilist perspective also fail to meet the point. This *formal* character and resistance to a naturalist and meta-theory approach to science are, in our view, the minimal elements preserved in a generous interpretation of Transcendental Deduction. The contingent way in which these categorical elements are enunciated linguistically, by copying or developing the model of the Aristotelian categories, and justifying a preference for a methodology of data collection more than others, for example, privileging the Newtonian physics, all of this is the thick disposable elements of the same doctrine. So to contest Kant by relying on the successes of non-Euclidean geometry and modern science is to criticize only the mass of disposable elements of his theory of categories. Thus, the expectation that Kant's theory should be able to guide us to a better methodology is a misplaced hope. Now we know that fallibilist critics of Kant's theory fail because Kant's theory cannot be totally covered by the mere contraposition between fallibilists and foundationalists.

Once again we can see the strategic force of the term 'transcendental' in order to create a preserved region of discussion. Understood inside the framework of a philosophical and transcendental problem, scientific revision would not be a technical reform movement carried out within a set of paradigmatic premises. Scientific revision, or the revolutionary passage from one paradigm to another, would be a movement belonging to a sort of critical cycle*, a priori*, but not foundational, for it never corresponds to an approximation with the things themselves, but only to the practical interests of human experience. In other words, paradigmatic changes are not made technically by testing the pigment of crows with new microscopes or new algorithms and formulas. The paradigmatic revolution involves a whole change of the practical subjective attitude, since it does involve a change in the whole mode in which experience is made possible.

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Abstract: The following article argues for four main points: 1. Kant's epistemological thesis about the possibility of synthetic *a priori* judgments is neither a fallibilist nor a fundationalist stance on the nature of knowledge. 2. The inevitable epistemological ambiguity between fallibilism and foundationalism follows from a) Kant's in-between metaphysical thesis that mixes empirical realism and transcendental idealism, b) Kant's blended empiricism, that demands formal elements of subjectivity in order to authorize possible experience and c) the creation of an 'in-between' rhetoric that allows Kant to (c.1) transit between the best features of seemingly opposite philosophies, and (c.2) allows him to preserve his set of problems from being kidnapped by technical approaches or empirical science methodologies 3. Kant's answer to the question of knowledge and empirical validity only acquires meaning inside the rhetorical structure of a transcendental problem that involves the linking of the problem of knowledge (and empirical validity) to the practical-human problem and its post-metaphysical residues. 4.The impossibility to place Kant in one or another side of the debate between fallibilists and foundationalists (being the same valid for the conflict between realists and idealists) shows an incorrigible limitation to the fallibilist and naturalist critiques of the *a priori* formal theory of Kant.

Key-words: epistemology, fallibilism, post-metaphysics, naturalism

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