

CARTESIANISM VERSUS KANTIANISM: A CHOICE FOR PRAGMATICS ?*

by
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The primary goal of this paper is to specify, compare, and evaluate the epistemological and methodological differences between Cartesianism and Kantianism. The advantages of the latter over the former will be indicated; however, it will be concluded that there exists no philosophical system that can fully account for the ontological and epistemological complexity of the cognitive and social interaction in the human environment. It will be suggested that a holistic approach to linguistic pragmatics has a great deal to offer to modern philosophy. In addition, it will be shown that (1) Kantianism is a less radical form of rationalistic Cartesianism, while the difference between the two is more quantitative than qualitative; (2) transcendental idealism has to be modified to meet the discoveries and challenges of modern science; (3) Kant's methodological syncretism ('empiricism', as I call it) has led to divergent interpretations of his philosophy by the post-Kantians, Neo-Kantians, and modern philosophers and researchers, as seen, e.g., in the innate ideas vs. a priori knowledge debates. And finally, (4) the problem of the relations between transcendentalism, relativism, and historicism will be considered in the framework of a modern philosophy of science.

1. Introduction

The situation of *Cartesians* and *non-Cartesians* seems, at least for the time being, to differ radically. While the *former* can claim a long and respectable tradition (of at least two and a half millennia) of philosophical rationalism represented by the greatest names in the history of philosophy including Plato, St. Augustine, Descartes, Spinoza and Leibniz, the *latter*, the 'dissenters' from, and 'traitors' to that tradition, along with other post-Cartesian orphans, have had to undertake a quest for intellectual ancestors in order to defend themselves against possible unfriendly accusations, ridicule, or insinuations from 'radical rationalists' about their 'illegitimate descent'. Obviously, non-Cartesians can associate themselves with some form of philosophical empiricism and try to locate their ancestors among certain famous Greeks, e.g., the Sophists or Aristotle. However, defending Aristotle's position as an empiricist would pose a serious problem (even though he obviously is a much

less radical rationalist than Plato; cf. Ackrill 1981; Irwin 1988). Thus, mostly thinkers such as Francis Bacon and the British empiricists: John Locke, George Berkeley and David Hume, as well as the later positivists, neopositivists, logical empiricists, analytical philosophers, and Popperians seem to be of interest to empirically-minded *non-Cartesians*. In this way, though much younger than rationalism, epistemological philosophy, being very respectable and science-oriented, may certainly contribute to a non-speculative perspective of 'doing science'.

Some philosophers suggests a 'third way' between rationalism and empiricism, one that is associated with Kantian *transcendental idealism*. Immanuel Kant (1781/1929) proposes to reconcile the two opposing epistemological traditions. Thus, one may ask whether non-Cartesians should embrace *transcendental idealism* as their epistemological and methodological ancestry instead of continuing their quest for another perspective. First, however, two important issues will be taken up: (1) some conceptual explanations will be offered and (2) the relation between science and philosophy will be briefly discussed.

It should be stressed at the outset that the notions of 'rationalism' and 'empiricism' are theoretical concepts that unfortunately refer not only to the idealized assumptions and research practices of philosophers and scientists, but also to specific claims and uses of particular approaches, schools, movements, trends, and even to individual strategies of researchers. The idealized version or 'ideal type' (in the Weberian sense; cf. Weber 1949) of rationalistic assumptions presented by Kopytko (in press) in terms of fifteen prominent features (the list is incomplete, but it allows us to grasp the differences from other approaches) should be viewed, first of all, as a heuristic strategy for presenting the 'problem'. 'Ideal types' do not aspire to the status of an objective reflection of reality (either physical, social, or mental), but certainly will facilitate description, comparison, and explanation. The truth is that academic texts and (what is more disturbing) even scientific formulations (especially scientific laws!) cannot exist without a considerable amount of idealization. Thus, rationalism (both as an 'ideal type' and a social construct) represents, and focuses on, the selected, typical features associated with this notion (one should add that it is historically constrained).

In addition, it is possible to add another pinch of relativism by claiming that it is possible to propose alternative 'ideal types' (this, of course, is an empirical matter). The issue here is that an 'ideal type' associated with a specific concept such as *rationalism* or *empiricism* may have few adherents: philosophers and researchers may embrace some of its assumptions and disregard others. Moreover, they may share some of the views of their epistemological and methodological opponents. In brief, 'pure rationalism' and 'pure empiricism' may turn out to be a convenient, but misleading fiction on two levels: first, that of *theoretical commitment*, i.e., an individual's claim about his/her philosophical and methodological preferences; and second, that of *social practice*: do the individuals uphold their principles in reality? (Which again is an empirical issue). One can imagine radical rationalists or empiricists embracing their 'paradigms' on the former level; however, an analysis of their research practice on the latter level would most likely reveal that their purely theoretical commitments have been 'contaminated' by alien intrusion.¹ Obviously, while empirical claims, in order to be valid, presuppose a form of rationalism (e.g., analytic reasoning, or perhaps some kind of *a priori* knowledge à la Kant), rationalistic claims without falsification or corroboration are empty (unless one wishes to wait two or three millennia for their confirmation, as in the case of Democritus' theory of the atomic structure of matter, which is by now a standard example of 'rationalistic power'; this case, however, seems to be the exception rather than the rule in the history of science).

Finally, the present author cannot refrain from addressing a third aspect of the rationalism vs. empiricism dichotomy that seems to be relevant in the present context, i.e., the *interpretive relativism* associated with the interpretive practice of many scholars, who tend to interpret and reinterpret a philosopher's views subjectively (which is understandable), but do this in many, often incompatible directions. (It should be admitted, however, that frequently the blame can be put on the philosopher himself, for being inconsistent in his views, for changing his beliefs, methods, and so on). A short quotation from René Descartes, the main advocate of 'innate ideas' will serve to illustrate the problem:

I have never written or taken the view that the mind requires innate ideas which are something distinct from its own faculty of thinking. I did, however, observe that there were thoughts within

me which neither came to me from external objects nor were determined by my will, but which came solely from the power of thinking ... So I applied the term 'innate' to the ideas ... in order to distinguish them from others, which I called 'adventitious' or 'made up' (1648/1987:303).

As can be seen, in this pronouncement (and others) Descartes (1969) seems to anticipate Kant's *a priori* knowledge and *transcendental idealism*.

The relationship between philosophy and science has had a long and difficult history. The dominant status of philosophy as *Regina Scientiarum* started to decline gradually in the 18th century, for philosophy to become *ancilla scientiae* in modern thought, following positivism, neopositivism, logical empiricism, and other empirically-based trends. In fact, on the one hand radical empiricists insist on eliminating philosophical/rationalistic intrusion into science, both on the metaphysical (e.g., the mind/body problem; cf. Ryle 1949), epistemological (cf. Popper 1963, 1972), and other levels. On the other hand, people working in the pragmatist, phenomenological, Marxist, transcendentalist, and other traditions, along with a number of non-aligned philosophers and scientists, have suggested an integration of philosophy with science. Such an integration, however, has met with mixed results. Thus, Marx proposed a 'scientific philosophy' (which has not proved to be a success, especially as far as its predictive power is concerned). And, while the relationship of Kantianism to science also has been varying, transcendental idealism has been frequently adduced to support certain claims of quantum mechanics, or to criticize, e.g., Kant's *a priori* categories of 'time' and 'space' (especially the latter for failing to account for the concepts of non-Euclidean geometry, cf. Reichenbach 1951). On the whole, though, Kantian apriorism and intuitionism have simply proven to be irresistible for mathematicians and logicians; and Chomsky's nativism has proved to be a fruitful field of inquiry for linguists for almost half a century.

Finally, it should be noted that some philosophers, e.g., Henri Bergson and Etienne Gilson, have postulated the autonomy of philosophy and science. In general, while rationalists tend to integrate philosophy and science, empiricists would rather loosen the ties, whereas radical empiricists would break off the relationship for good. The choice is everybody's own, and so is its justification.

2. René Descartes versus Immanuel Kant

A suggestion to replace Cartesian rationalism with Kantian transcendentalism (especially the latter's transcendental method) seems to be of the utmost importance for non-Cartesians who would like to rest on the solid foundation of a respectable philosophical system. Indeed, it would be difficult, if not impossible, to find within the rationalistic tradition in the post-Cartesian philosophical world a better challenger than Immanuel Kant (along with, of course, John Locke and David Hume in the growing empirical opposition).

The basic metaphysical and epistemological claims of Cartesian rationalism can be summarized as follows: (1) the duality of the mental vs. physical 'worlds' (now known as the 'mind-body problem'), (2) the *innateness hypothesis*, (3) essentialism, (4) cognitive rationality, (5) certainty of knowledge, (6) universal rules, (7) universal claims, (8) deductivism, (9) predictiveness, (10) analytic method, (11) reason as the ultimate source of knowledge, (12) a single method for all of science, (13) the priority of the knower over the known, (14) God exists, (15) God's existence can be proved and its necessity justified by means of reason.

It will be assumed here that Descartes would endorse the majority (ideally, all) of the philosophical claims presented above and associated with his name. An intriguing question is which of those claims Kant would accept, and which of them he would reject and why. Another issue that should be raised is whether and how Kantian transcendentalism improves on Cartesian rationalism.

Kant's influence on the mind-body debate does not seem to have been strongly felt. In fact, Kant (in his *Transcendental Dialectic*, i.e., part three of Kant 1781/1929) is very skeptical about the possibility of metaphysics as a rational subject of analysis. Kant's transcendental theory of knowledge as conditioned by aprioristic categories and a cognitively inaccessible noumenal world, rules out virtually all of traditional metaphysics that focuses on questions such as the existence of God, the immortality of soul, or the freedom of the will. In his analysis, Kant failed to attain a single true *a priori* synthetic judgment. Thus, rational psychology, rational cosmology, and natural theology turned out to be without foundation, and Cartesian dualism seems to belong to the same category of metaphysical questions.

Kant was critical of Cartesian rational psychology (cf. Brook 1994). One of his Transcendental Paralogisms (i.e., fallacies) is the Cartesian belief that 'I think' implies the existence of a substantial self or soul, which is simple, rather than composite, and capable of existing apart from the body. In *Die Anthropologie*, Kant (1798/1974) raises some cognitive topics in the context of a denial of the possibility of empirical psychology. Modern 'creative' interpretations (cf. Kitcher 1990) propose an empirically oriented reading in the sense of a 'transcendental psychology'.

Kant (1781/1929) replaced the Cartesian notion of innate ideas (knowledge) by that of *a priori* knowledge (categories), interpreted (by post-Kantians) as either innate concepts or as bearing a strong 'family resemblance' to Cartesian ideas (cf. Moser 1987). Certainly, modern nativists could accept a Kantian view (not expressed by Kant himself) according to which language acquisition is conditioned by *a priori* knowledge of some linguistic categories. I will return to this question below.

The scope of a Kantian 'essentialism' naturally has to be rather limited, i.e., only *a priori* knowledge may become an object of 'essentialist insight'. Kant's impervious 'noumenal world' has to remain a mystery even to transcendental insights – no doubt to the satisfaction of subjective idealists and agnostics. The essence of the 'phenomenal world' can hardly be of interest to serious post-Kantians, unless they are 'dissenters' from, or 'traitors' to, their own tradition.

Cognitive rationality, i.e., the belief in the rationality of man and his cognitive powers (especially reasoning, judging, understanding, etc.), the foundation of Cartesian metaphysics and epistemology (method), would certainly be endorsed by Kant, with the obvious reservation that the source of knowledge is experience. The latter claim he proclaimed openly (Kant 1781), but observed it, to the dissatisfaction of his critics, rather rarely.

The Cartesian quest for certain knowledge was continued by Kant. The uncertainty of empirical, sensory data has to be, according to Kant, transcended and replaced (or controlled) by the demonstrative knowledge of mathematical-type and aprioristic knowledge (categories) that condition the possibility of knowledge at all/as such. Obviously, such a system of knowledge acquisition relies on universal rules and claims, the deductive method, and the requirement of *predictiveness*. From this, the claim of 'a single

method for all science' follows 'clearly and distinctly', to use one of Descartes' own expressions. All this makes Kant a perfect Cartesian. But note that Kant's scope of science was limited to mathematics, logic, and the natural sciences; cognitive science would naturally not be included.

Kant would have to object to the rationalistic claim that 'reason is the ultimate source of knowledge' because of his attempt to reconcile rationalism and empiricism, in particular the views presented by Leibniz and Hume, respectively. However, it should be noted that *a priori* knowledge, according to Kant, is indispensable to the possibility of knowledge at all, and therefore, as a precondition of all knowledge, must be viewed as a primary form of knowledge; empiricists will most likely interpret this as an instance of rationalistic thinking.

The principle of the priority of the knower over the known would probably not be a bone of contention between Descartes and Kant. While Descartes insisted on the presence of innate ideas (as God's gift) in order to account for the truth of human cognition (as opposed to subjective, uncertain, sensual/empirical cognition), Kant argued in favor of *a priori* knowledge that conditions the possibility of science. Notably, Neo-Kantians (cf. Köhnke 1991) from the Marburg School (first of all Hermann Cohen) have rejected this Kantian dualism (reason vs. sense-data, or rationalism vs. empiricism) in favor of the Cartesian view.

The questions of 'God's existence', the 'immortality of the soul', and the 'freedom of will' had been solved affirmatively in Cartesian philosophy. When analyzed in accordance with Kant's Transcendental Dialectics, such questions lead to Transcendental Paralogisms and metaphysical illusion. Clearly, then, Kant is skeptical about the possibility of a theoretical metaphysics. This is one of the most conspicuous differences between Cartesianism and Kantianism.

In sum, Kant appears to be a much less radical rationalist than Descartes (especially on the metaphysical level). Although he acknowledges the importance of empirical data in human cognition, few empiricists, if any, would include him in their tradition (even partially or conditionally). Rather, he may be viewed as a moderate rationalist with an empirical connection with the 'phenomenal world' as his theoretical commitment.

3. *Transcendental science*

The question whether Kant's philosophical system improves on Cartesian rationalism and as a result can be accepted by some (at least moderate) non-Cartesians is certainly an empirical matter. As has been shown above, Descartes' and Kant's epistemological claims overlap to a considerable degree; there are, however, areas of disagreement.

Kant's Copernican revolution is, first of all, a reaction to naive empiricism rather than to rationalism, and Kant's claims have to do with the role of *a priori* knowledge (i.e., the knower) in human cognition and with his transcendental method. Putting aside the metaphysical claims about God's existence (above, 14 and 15) as not relevant for the current purpose, the areas of complete overlap between, or equivalence in Descartes' and Kant's views include: (a) a belief in cognitive rationality (above, 4); (b) the search for certain knowledge (5), universal rules (6), and universal claims (7), along with deductivism (8) and predictiveness (9); (c) a single method for all of science (11).

Certain differences appear in their approach to (a) *innate ideas* (mainly in neo-Kantian interpretations), (b) *essentialism*, (c) the priority of the knower over the known and the relation between 'reason' and 'sense-data', and finally, (d) Kant's new concepts '*a priori* knowledge' and 'transcendental idealism'. Thus, a *Transcendental Pragmatics*, in order to secure its identity and show its independence of, and superiority over, the Cartesian paradigm would have to depend on an analysis of the above concepts and their consequences. In addition, it might have recourse to some post-Kantian or Neo-Kantian (re)interpretations of Kant's views, with the reservation that some (or even the majority) are so far removed from the 'core' of Kantian philosophy (either in the direction of rationalism, e.g., the Marburg School, or empiricism, e.g., Friedrich A. Lange and Hermann Helmholtz) that their relation to Kant is more linguistic than factual.

3. 1. Innate ideas versus a priori knowledge

There are considerable differences among philosophers about the content and scope of innate ideas, i.e., ideas and principles that exist

in the human mind from birth and have not been derived from previous experience. Plato's extreme position of recollection (*anamnesis*) of eternal ideas and his claim that all ideas are innate were continued (with minor modifications) almost two millennia later by his successors Descartes and Leibniz.

Kant's critique of 'pure reason' certainly represented a challenge to the extreme nativism of his predecessors, especially as regards the scope of innateness and its relation to the 'phenomenal world', that is, the role of experience in the acquisition of new concepts or principles. However, Kant did allot some space in the mind/brain to *a priori* categories, whose ontological status is not clear. They have been assigned either a genetic-psychological status, i.e., they have been viewed as innate forms of cognition, or they have been interpreted as non-innate logical forms, independent of the structure of the human mind and indispensable in the process of human cognition; this position is associated with the Marburg School (in particular Hermann Cohen), while the former view seems to be better justified in view of Kant's epistemological dualism.

Thus, the situation in this debate appears to be as follows: (1) Kant is either interpreted traditionally as a follower of nativism (but considerably less so than Descartes), or (2) on a Neo-Kantian reading, Kant is interpreted as a non-nativist (one has to admit that this represents a serious deviation from Kant's philosophical standpoint in this matter, cf. Köhnke 1991).

It should be noted, too, that the scientific status of nativism in modern science is far from settled. Rationalistic argumentation seems to prevail in the debate, while empirical support in favor of nativism is not convincing (cf. Cowie 1999). Many aspects of language acquisition can be explained without having recourse to innate mechanisms. All in all, it seems rather unlikely that the innateness debate will ever be resolved in favor of one or the other view. This is so because neither rationalists nor empiricists can explain behavioral phenomena on their own. Therefore, a syncretic 'empiricism' (as I will call it) may prove to be the best methodological choice, at least for the time being.

Kantian apriorism has been also in trouble for a long time. First of all, his categories of 'time' and 'space' cannot account for new developments in set theory and the curved space of non-Euclidean geometries (cf. Reichenbach 1951). Thus, *a priori* geometry had to give way to a realistic/empirical alternative. Neither does Kant's

category of 'causality' seem to be observed on the subatomic level of quantum mechanics (cf. Heisenberg 1959). Modern science has rejected his notion of *synthetic judgments a priori*. Some philosophers have called into question the validity of the notorious analytic vs. synthetic distinction (cf. Quine 1962; Kripke 1980). In sum, Kantian apriorism belongs to rationalistic metaphysics and can hardly be accepted by empirically-minded researchers. It should be noted, however, that the Popperian requirement of falsifiability (1963, 1972, 1983) of such categories as 'time', 'space', and 'cause' is a positive development in the epistemological interaction between science and philosophy.

3. 2. Transcendental method

Kant uses the term 'transcendental' in many senses: a type of philosophy, deduction, proof, truth, knowledge, idea, principle, and a number of others. He specifies the meaning of this concept as follows:

I entitle *transcendental* all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects in so far as this mode of knowledge is to be possible *a priori*. A system of such concepts might be entitled transcendental philosophy. Kant (1781; A12).

In his search for certainty in science, Kant postulates the need to transcend the bounds of experience in order to reach the necessary and universal forms of *a priori* knowledge, specifically, the judgments called *synthetic a priori*.

As has been mentioned above (Section 3.1), there are problems with the latter in modern science, and the very possibility of *synthetic a priori* judgments has been challenged. Whereas the direction of Kantian transcendence is from sense-data (empiricism) to a priori forms (rationalism), the method of this transcendence is not empirical but rationalistic, i.e., based on reason and other Cartesian claims (presented earlier), and not on experience. As a result a *rationalistic circle* ensues. Kantian ontological duality, viz., the distinction between *phenomenal* vs. *noumenal* 'worlds' either has to be abandoned (which Kant did not) or it has to be replaced by a 'three

worlds metaphysics' that would have to include an independent world of *a priori knowledge*, which neither belongs to the phenomenal nor to the noumenal world. This is so because the former world is empirical and the latter cannot be known to the cognizer. The actual situation thus reflects the internal contradictions of the Kantian philosophical system.²

The transcendental method reveals a unidirectional, asymmetrical relation between sense-data and a priori knowledge, which seems to be a problem both for the philosophy of science and (especially) scientific practice. The latter would prefer to work with a bidirectional *transcendental cycle* that could account for developments in modern science, from non-Euclidean geometries and set theory to relativity, quantum mechanics, and superstring theory (cf. Greene 1999: how to imagine and transcend a nine-dimensional space?). The transcendental method is associated with Kantian (generic) subjectivism, i.e., aprioristic forms shape the objects of cognition rather than the other way around. Therefore, transcendental, aprioristic knowledge has to be transcended (a phase of the *transcendental cycle*) to take account of new developments in science. Unless modified in the suggested (or some other) way, the transcendental method will be of little use for the sciences.

The most pernicious side-effect of the Kantian transcendental method seems to be a decontextualization of the 'phenomenal world', as it is perceived in terms of innate, intuitive, and immutable categories (again, the transcendental cycle might solve this problem). Thus, the rationalistic search for certainty clearly depends on idealized, innate categories that impose their universal interpretation (structure) on the objects of cognition and investigation.

Moreover, the operation of Kantian categories seems to be decontextualized also on the cognitive plane by its distinction between autonomous (in modern terms, modular) categories of perception and reasoning on the one hand, and the rest (i.e., the other mental functions) on the other. The underlying cognitive assumption, viz., that the former precede the latter (which, as has been shown by Damasio 1994, 1999, is not the case), and the decontextualization which such an assumption entails are hardly acceptable to non-Cartesians. Thus, the transcendental method would have to face criticism from a long tradition of *cultural relativism* (including such Neo-Kantians as, e.g., Ernst Cassirer 1944, 1977-1996). (Compare also that Paul Grice's (1975) conversational

maxims (which may be viewed as his *a priori* principles) have become an object of 'cultural' attacks from the cultural relativists).

The relation between transcendental method and essentialism is a positive one, i.e., the former inescapably leads to the latter. This is not surprising, because philosophical thinking by focusing on the analysis of concepts must be essentialistic in nature. Two quotations from Kant (1781/1929) suffice to illustrate the problem:

For it is of the very essence of reason that we should be able to give an account of all our concepts, opinions and assertions, either upon objective or, in the case of mere illusion, upon subjective grounds. (A614).

And:

For if the most complete purposiveness cannot be presupposed a priori *in nature*, that is *as belonging to its essence*, how can we be required to search for it ...? (A693).

Thus, Kant, is no doubt an essentialist in rationalistic philosophizing, although it should be noted that his ontological dualism rests on the cognitive inaccessibility of the 'noumenal world', while the essence of the 'phenomenal world' seems to be imposed by his *a priori* categories. As a result, there is basically little difference between the Kantian and Cartesian view of philosophical essentialism (for an accessible and illuminating view of essentialism cf. Janicki 1990, 1999); there *is*, however, a difference in their use of the transcendental method.

4. Transcendentalism and historicism

Kant's use of the term 'historical', especially in the phrase *historical knowledge* is a peculiar one. The meaning is much broader than that of its modern equivalent. The following quotation from Kant (1781/1929; A836/B864) will illustrate the difference:

If I abstract from all the content of knowledge, objectively regarded, then all knowledge, subjectively regarded, is either historical or rational. Historical knowledge is *cognitio ex datis*; rational knowledge is *cognitio ex principiis*. However a mode of

knowledge may originally be given, it is still, in the relation to the individual who possesses it, simply historical, if he knows only so much of it as has been given to him from outside (and this in the form in which it has been given to him), whether through immediate experience or narration, or (as in the case of general knowledge) through instruction. And further: In other words, his knowledge has not in him arisen *out* of reason, and although, objectively considered, it is indeed knowledge due to reason, it is yet, in its subjective character, *merely historical*. (My emphasis).

The derogatory note in the last sentence of the above quote (as manifested in the expression *merely historical*) seems to imply a deficiency of the historical (being empirical, contextual, learned, transient, etc.), as compared to rational, universal knowledge) – a deficiency which Kant tries to remedy by postulating that we have to transcend the *merely historical* in order to reach *a priori* knowledge and rational objectivity. Viewed this way, the transcendental method and the idea of historicism do not seem to be compatible. The way out of the quandary is either to follow Kant in his transcendentalism, or to adopt the Neo-Kantian distinction between the *nomothetic* and the *idiographic*.³

Kant does not appreciate knowledge acquired from others because whoever does so, 'has formed his mind on another's, and the imitative faculty is not itself productive.' (Kant, *ibid.*). Therefore, Kant seems to implicitly suggest that one should trust one's own critical rationality, first of all. If we follow Kant's advice, then it appears inevitable that we (may) possess a historical knowledge of Kantian philosophy; which brings us straight to the issue of *historical relativism* (and the historical context). Now researchers are in real trouble, because they have to reconcile the changing, dynamic, historical context and the stable, static ideas, theories, or philosophical systems such as Kant's transcendental idealism. Here, they have several strategies at their disposal. Radical solutions could postulate either (1) to accept the idea of historical relativism, relegating transcendental idealism to where it belongs, viz., the history of philosophy; or (2) rejecting historical relativism (a true Kantian should, in fact, transcend relativism, historicism, and other drawbacks), to claim the universality and ahistoricity of transcendentalism. More moderate solutions might suggest (3) to modify and develop the Kantian philosophical system to meet the requirements

(or expectations) of modern science (the actual context); or finally (4) to specify or reformulate the claims of historical relativism.

The doctrine of historical relativity may be, theoretically as well as practically, a considerable (or even insurmountable) stumbling block for an adequate interpretation of facts, ideas, theories, or ideologies taken out of their historical context; the result may be an ahistorical interpretation of Kant's philosophy. Therefore, a question should be asked, from the Kantian perspective, about the possibility of ahistorical acts of understanding/*Verstehen* (Weber 1979) and interpretation. In brief, can we interpret transcendental idealism outside of its historical context (which is inaccessible to modern researchers and can be reconstructed partially and subjectively only)?

The very fact that there are so many (often contradictory) interpretations of Kant's philosophy suggests the influence of the cognitive (including linguistic) and historical (i.e., socio-cultural, political, ideological) contextual biases involved in the interpretive process. This concerns both post-Kantians and neo-Kantians, as well as modern interpreters. 'Creative' or so called 'deep' interpretations of Kant's philosophy may be utterly unacceptable to those following a more traditional line of interpretation (and most likely, to Immanuel Kant himself). For instance, the faculty of *sensibility*, according to Kant (1781/1929; A23/A24) depends on innate intuitions of space and time: 'Space is not an empirical concept which has been derived from outer experiences.' And further: 'Space is a necessary *a priori* representation, which underlies all outer intuitions.' However, a modern researcher (Falkenstein 1998) challenges the nativist tradition (and Kant himself) by claiming that Kant is not a nativist as regards space and time. Postmodern relativists, too, could make this a case for their claims. Thus, they may insist that philosophy bears a 'family resemblance' to poetry rather than science. For the radical postmodernist, a similar relation holds between science and poetry (cf. Feyerabend 1978; Jameson 1981; Lyotard 1984; Rorty 1980).

The Neo-Kantians have modified and developed (or perhaps misinterpreted and deviated from) Kant's inheritance in different directions. For the present discussion, the already mentioned distinction between *nomothetic vs. idiographic* disciplines/research (as proposed by Wilhelm Windelband and developed by Heinrich Rickert) seems to be crucial. The question whether pragmatics, both in its ontology (the objects it investigates) and in its methodology

resembles nomothetic (law-seeking) physics more than it does the idiographic study of individual cases and events, has to be resolved in favor of the latter. This is so because (1) no two agents/interactants possess the same pragmatic competence; (2) no two social/verbal interactions can be the same; (3) the context of each interaction is different (and cannot be reproduced at will); and (4) the linguistic behavior of participants may change dynamically (along the time axis) within a specific interaction (and from one interaction to another).

In this situation, the problem that remains to be addressed is whether there exist any pragmatic regularities and if so, where they exist (i.e., at which level of pragmatic analysis: cognitive-linguistic, social, cultural, etc.) It may also be the case that some apparent regularities prove to be pragmatic illusions that under close scrutiny vanish into thin air. Obviously, the Neo-Kantian taxonomy of the sciences represents the tradition of *ideal types*, the world of discrete and categorical concepts, etc.; such a view is incompatible with the pragmatic perspective advocated by the present author (cf. Kopytko 1995, 1998, in press). The phenomena and processes associated with human cognitive and social activity seem most often to be complex, heterogeneous, opaque, and contingent rather than their opposites.

To avoid the problems of historical relativism and contextualism, some philosophers of science and researchers have accepted Reichenbach's (1951:231) distinction between *context of discovery* and *context of justification*. According to Reichenbach, 'The act of discovery escapes logical analysis'; and further: '... logic is concerned only with the context of justification.' A similar (logical) view of the philosophy of science is presented by Karl Popper (1959, 1963, 1972, and elsewhere; it should be noted that Popper's, 1957, celebrated critique of historicism is still valid in many respects). However, in contrast to Kant, Popper believed that *a priori* knowledge is an historical object (in the Kantian sense), which can be modified in the process of learning (cf. Popper 1976). Similarly, Cassirer claimed that our (i.e., Kantian) categories develop over time (cf. Schilpp 1949; Cassirer 1977-1996). There is thus close affinity between Kant's belief that the human intellect imposes its laws on nature (rather than deriving them from nature), and Popper's claim about *theory-laden observation*. Both views imply some form of relativism and subjectivity in human cognition and scientific practice.

A pro-historical view of the philosophy of science has been advocated by Kuhn (1962), using the notions of 'scientific revolution' and 'paradigm shift'. The standards of rationality and 'scientific method' change along the axis of time; and they will continue to do so. The character of the changes and their dependence on the specific historical context remains to be investigated by the historians of science (cf. Feyerabend 1978; Giere 1992, 1999; Goldman 1999; Kuhn 1977; Laudan 1977). This endeavor, however, seems to require a very subtle kind of analysis. The well-known fact that within the span of two decades, Ludwig Wittgenstein (1953) rejected and Noam Chomsky (1965, 1966, 1972) embraced Cartesianism illustrates the interplay of the historical and non-historical context and factors. Compare also that it was Jean Piaget (1970) who established epistemology as an experimental science by following the Kantian integration of 'rationalistic' and 'empirical' method in a genetic-historical context. Note, however, that his studies of cognitive development combine empiricism with Hegelian *a priori* idealism, not that of Kant's, which he calls 'dialectical constructivism'.

In sum, the Kantian doctrines of *transcendental idealism* and *historical relativism* and its supporters: *cultural relativism* (cf. Foley 1997), *cognitive pluralism* (cf. Zerubavel 1997), *social constructionism* (cf. Berger and Luckmann 1966; Gergen 1985, 1994), as well as the philosophy of *postmodernism* (cf. Best & Kellner 1997), all agree as to the relativity of scientific endeavor. The way out of this predicament and its undesirable consequences is not to deny the obvious facts of subjectivism and relativity at the various levels of human cognition and social action, but rather 'transcend' them. But, as we have seen, the doctrines mentioned above will be of little use in accomplishing that task.

5. Conclusion

The answer to the question whether Kantianism is a genuine alternative to Cartesianism seems to be moderately affirmative, however with many reservations and doubts. The Kantian 'Copernican revolution' transcends (naive) empiricism and unlocks the realm of the *a priori* categories that, according to Kant, make science and cognition possible. Unfortunately, in the Kantian tradition, the ontogenetic and phylogenetic aspects of *a priori*

knowledge have not received sufficient attention. According to the interpretation offered above, Kant would accept the majority of the Cartesian rationalistic claims (1-15 in Section 2, above), with some minor modifications to fit the intricacies and specifics of his epistemology. The major disagreement between Kant and Descartes would then be the Kantian question of a possible metaphysics. Orthodox Cartesians would opt for a positive, Kantians for a negative decision on that issue.

Certainly, Kant is a less radical rationalist and transcendentalist than is Descartes. One could say that while both take a 'transcendental leap', the leap taken by the former leaves behind a trace of the empirical 'phenomenal world', while the latter's leap leaves behind an empty space that is of no interest to science.

As has been mentioned, there are also problems with the Kantian 'three worlds' and the unidirectionality of his transcendental method (to be remedied by the *transcendental cycle*). Kant's epistemological syncretism (i.e., his combining empiricism with rationalism into what I have called 'empiricism' – a welcome development) seems to be a source of constant reinterpretation of Kantian philosophy (started by post-Kantians and Neo-Kantians and continued by modern philosophers and researchers) in different directions (empiricist or rationalist). These interpretations seem to depend mainly on the current goals and interests of particular researchers and for that reason, frequently deviate from the traditional views on Kant's philosophical system. Such practices clearly suggest that, using a 'creative' or 'deep' interpretation, it is possible to derive almost any epistemological claim or idea from transcendental idealism. From this point of view, Kantianism could be recommended as an inexhaustible reservoir of concepts, ideas, and theories (sometimes contradictory) for a variety of sciences. In this sense, a fruitful cohabitation between science and philosophy should be appreciated. Obviously, such a 'marriage' engenders its own problems, contradictions, incompatibilities, and so on; however, these can be managed and controlled by human rationality.

Thus, Kant can be viewed as a very moderate non-Cartesian. For that reason, his epistemology will certainly not be accepted by empirically oriented researchers, unless they are 'seduced' by the 'creative' reinterpretations of transcendental idealism. Nonetheless, it seems that there exists no single, complete philosophical system that could solve (or suggest some plausible solutions to) the problems

(metaphysical, epistemological, and methodological) that modern science has to face.

The importance of Kantianism (at least in some of its aspects) for pragmatics will depend on the scope and goals of pragmatic theory. Some form of 'empiricism' for pragmatics seems to be inevitable. However, it is not certain whether Kantian transcendentalism will be able to account for the phenomena and processes associated with verbal interaction and pragmatic competence. Moreover, there arise serious difficulties when we try to reconcile the two incompatible concepts of transcendentalism and contextualism. Kopytko (in press) argues for a *pancontextualism*, i.e., a syncretic, multidisciplinary approach to pragmatics. The 'mongrelization' of pragmatics, as presented and advocated in Kryk and Mackenzie (in press), seems to be a further desirable development. Such views of pragmatics necessarily raise a number of philosophical questions, the answers to which should mostly be found within the field of pragmatics, rather than in philosophy.

Furthermore, pragmatics being a socio-historical science (cf. Romaine 1982; Jucker 1995), it has to reconcile the Neo-Kantian idiographic approach to historical sciences with some form of uniformitarianism. Obviously, too, it has to 'transcend' all the difficulties and weaknesses associated with historicism and historical method.

In conclusion, the choice of Kantianism over Cartesianism seems to be a step in the right direction, however, one that is more of a quantitative than of a qualitative kind. The Neo-Kantian modifications and reinterpretations of transcendental idealism frequently try to bridge the gap between science and philosophy. In this respect, it seems that human communication occupies the space between Kant's *noumenal world* and his self-evident *a priori synthetic* world (where $7 + 5 = 12$, and that's it). Human communication may thus be viewed as a species of Kant's *phenomenal world*. However, the properties and functioning of a human agent in social interaction clearly go beyond the Kantian philosophical system (in particular, the transcendental method). Therefore, we must look to further research into *pancontextualism* and holistic pragmatics (cf. Kopytko in press) for possibly throwing new light on a number of familiar philosophical questions.

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Notes

- * The author wishes to thank the editor, Jacob L. Mey for the stylistic improvement of the paper.
- 1. It should be noted in this connection that Noam Chomsky's rationalism has, according to its founder, an empirical interface. The constant development, modification, and growth of generative theory seem to confirm this claim to a certain degree.
- 2. A Kantian, or Kant-inspired, theory of 'three worlds' might prove to be a fruitful area of philosophical investigation. Not surprisingly, such a theory bears some 'family resemblance' to Popper's (1972) 'three worlds', even though the differences between the two thinkers are considerable. For pragmatics, Leech's (1983) underestimated categorization in terms of 'four worlds' still seems to hold out more promise.
- 3. On this distinction, see below. It should be noted that some researchers present Kant as a precursor of hermeneutics (cf. Hamilton 1996).

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