

GUEST EDITOR NOTE

As guest editor of this special issue of the journal *Estudos Kantianos*, I am honored to introduce the contributions gathered under the general title *Kant and the empirical sciences*. This monographic number two of the second issue of *EK* contains twelve articles, written by an outstanding international group of Kant scholars who have extensive experience on the questions addressed by the issue, published in five languages (English, Spanish, German, French and Portuguese), meeting the multilingual scope of the journal. The original idea of the monographic issue was to discuss whether Kant's firm reduction of science, according to the proper sense of this term, to the condition of apodictic certainty could exhaust his concern with the methodical grounding of science and scientificity. The following excerpt of *Metaphysical Foundations of Natural Science* (1786) displays neatly Kant's point of view about science as a product of reason: "Only that whose certainty is apodictic can be called science properly; cognition that can contain merely empirical certainty is only improperly called science" (MAN, AA 04: 468). However, an earlier Kant's work aiming at defending the *Critique of Pure Reason* against its early misunderstandings, *Prolegomena to Any Future Metaphysics* (1783), points out that all empirical research could be subordinated to the legislation of reason, which therefore will shed some doubts on the legitimacy of the preceding severe categorical statement. Kant formulates this suggestion as follows in the *Prolegomena* (AA 04: 364): "whether or not experience is in this way mediately subordinate to the legislation of reason may be discussed by those who desire to trace the nature of reason even beyond its use in metaphysics, into the general principles of a history of nature; I have represented this task as important, but not attempted its solution, in the book itself". This excerpt encourages the reader to extend the study about the legislative scope of reason beyond the field covered by metaphysics, i.e. descending to the humble *bathos* where the empirical sciences are cultivated. All the articles of this monographic number attempt to cast light on such a valuable and daunting task that Kant left without an ultimate solution.

This collective work aims at providing complementary upshots about Kant's idea of science to those offered by books as *Kant and the Exact Sciences* (M. Friedman ed., Harvard U.P., 1998) and *Kant and the Sciences* (E. Watkins, Oxford U.P., 2001). Moreover, it is especially indebted to hermeneutical and methodological outcomes derived from publications as Alix A. Cohen's essay, *Kant and the Human Sciences: Biology, Anthropology, and History* (Palgrave Macmillan, 2010). Cohen was also editor of the helpful special issue of *Journal Studies on History and Philosophy of Science*, "Kantian Philosophy and the Human Sciences", published

in 2008, whose purview and aims are in part shared by this special issue of *Estudos Kantianos*, which follows a path also paved by publications as Robert Louden's, *Kant's Human Being* (Oxford U.P., 2011), Jennifer Mensch's, *Kant's Organicism. Epigenesis and the Development of Critical Philosophy* (Univ. of Chicago Press, 2013) and the collective book edited by Pedro Jesús Teruel, *Kant y las ciencias* (Biblioteca Nueva, 2012). The authors of all these books fruitfully engaged with the theme of this issue, which has clearly benefited from their experience. Other authors in it, such as Patricia Kitcher, have also contributed indispensable discussions about the attention that Kant bestowed to the empirical sciences. Another contributor — Ana Marta González— published recently a brilliant book —*Culture as Mediation* (Olms, 2011)— focusing on the service that culture renders to morality in Kant's thought. I decided as editor to break down the contributions into three sections, relating first to Kant's approach to the human sciences, second to his appraisal of different empirical features concerning the sciences of nature and, finally, to his treatment of the sciences that regard more directly the human being —Anthropology, Medicine, Biology and History—, providing thus an outline that unfolds the complexity that the study of human nature entails in Kant's thought. In what follows, I shall give a closer review of all them.

The first section of articles includes an introductory and groundbreaking paper of Alix A. Cohen (Univ. of Edinburgh, UK) —*A Defence of Kant's Biological Model for the Human Sciences*—, which claims the biological model that Kant would have applied in his reflection about the human sciences, displaying also a useful critical exchange with another contributor of the volume, Robert Louden. Although Kant's paradigm of science is decidedly committed to the double condition of mathematisable phenomena and universality and necessity of knowledge, Cohen argues that Kant's approach to human science supplies elements that enhance the moral efficiency of the subject and bear a pragmatic purpose. Werner Stark (Univ. of Marburg, Germany) offers in his article —*Naturforschung in Königsberg. Ein kritischer Rückblick aus den Präliminarien einer Untersuchung über die Entstehungsbedingungen von Kant's Vorlesung über Physische Geographie*— a useful review about the Prussian intellectual environment that gave birth to the development of physical geography as an independent discipline, which Kant understands as the counterpart of history. Stark highlights the flaws of Bruno Erdmann's research regarding the historicity of this important pedagogical matter and opens up new sparkling hints of the influence that figures such as Friedrich Franz Saturgus and Friedrich Samuel Bock had over Kant's assessment of the pragmatic character of geography. The articles by Patricia Kitcher (Columbia University, USA) and Andrew Brook (Carleton University Ottawa, Canada) focus on Kant's epistemological theory, suggesting some new approaches. Kitcher proposes in *Kant's Unconscious 'Given'* to test a third way in the discussion between the myth of the given and the myth that denies a separate sensory contribution to cognition, tackling unconscious representations as a paradoxical 'blind' womb of the process of cognition in Kant's view and drawing some significant consequences from this evidence. Andrew Brook attempts, in turn, to contextualize in *Kant and Cognitive Science* Kant's contribution to the history of cognitive research, arguing that most important features of Kant's epistemology (combination of percepts and concepts in representation, transcendental argument, functional method

or unified consciousness) unfortunately have not yet been assimilated by the contemporary paradigm of cognitive science.

The second group of contributions deals with Kant's grounding of natural science, furnishing several original approaches to this issue, which exhibit a common interest in addressing the relation between Kant's theory of nature and the finite framework that he sets up for human knowledge. The contribution of Jesús González Fisac (Univ. of Cádiz, Spain) —*Fenómeno y fenomenología en el periodo crítico de Kant*— aims at untangling main aspects of Kant's transcendental conception of phenomena and phenomenology, taking into account the origin of this term in Lambert's work and raising the question that to accept the reality of phenomena rules out referring to any physical or metaphysical ground. Against the assumption of the dependence of phenomena on the thing itself, Fisac argues convincingly that Kant's theory of the 'obstinacy' of phenomena, a propriety that cannot be ignored or reduced, offers on the contrary a phenomenology of the beholder of that temporal reality. Pierre Kerszberg's (Univ. Toulouse, France) article —*Kant et le principe cosmologique*— starts from a discussion of Kant's first antinomy, aiming at showing that the so called cosmological principle functions as a regulative or heuristic principle of reason. He chiefly underscores the intrinsic ambiguity that the faculty of judgment undergoes in natural scientific research, since this faculty swings between the imperative to order possible experience and the sublime desire to broaden continually human knowledge by deciphering the mysteries that nature conceals. Paolo Pecere (Univ. of Monte Cassino and Meridional Italy, Italy), author of *Kant's Newtonianism: a Reappraisal*, attempts to reassess Kant's view of Newton's physical method, giving a critical account of the classical view of both thinkers which holds that Kant would merely aim at providing a foundation of Newton's physics. Pecere highlights the intertwining of physics and metaphysics along Kant's entire work and brilliantly argues that there is a close analogy between Newton's force of gravitation and Kant's *a priori* theory of matter, whose reality Kant explains as a result of the interaction of attractive and repulsive forces. Pecere concludes that Kant's conception of finite knowledge agrees completely with the methodological grounds of Newton's reluctance to assume any hypothesis in the research process. Finally, Patrícia Kauark Leite (Federal University of Minas Gerais, Brazil) claims in her article *Ciência empírica, causalidade e razão suficiente em Kant* that Kant's conception of causality is much broader than the principle of sufficient reason, the latter of which is understood as a principle that orders the objects of perception, entering thus on a critical discussion of Béatrice Longuenesse account of this issue. Kauark reviews Kant's conception of causality in the field of the empirical sciences, arguing that often the search for the sufficient or determinant reason tries to order the multiplicity of experience or the concepts of understanding as a whole under fundamental forces or a systematic unity, which do not belong to the horizon of temporal and phenomenal knowledge, but aid the goals of reason and thinking.

The last section of contributions focuses on the human sciences, among which Anthropology, Medicine, Biology and History stand out. Robert Loudon's (Univ. of Southern Maine, USA) contribution —*Kantian Anthropology: A Science Like No Other*— endeavors to cast light on some difficulties that hinder anthropology in meeting the severe conditions that science ought to fulfill according to Kant. Although the popularity of this discipline would

explain its mixed scientific rank, Loudon suggests distinguishing accurately between the discovery of rules or laws of human behavior and the pragmatic and moral features of this special science. Thus, Kant's anthropology would hardly fulfill the proper meaning of science, but it could also lie within the framework of science just taking into account its pragmatic value. Pedro J. Teruel (Univ. of Valencia, Spain) highlights in the article *'Das Hippocratiche Geschäft'. Significado, sentido y ubicación estructural de la medicina en la filosofía kantiana* what he considers a structural link between Kant's approach to medicine and the concerns and goals of his practical appraisal of reason, since to look after the body and the mind benefits without doubt the aim of acquiring a good moral character. He draws the conclusion that medicine eases the transition from physiology to the science of human being, gaining a special rank into the scientific encyclopedia. Jennifer Mensch (University of Waterloo, Canada) claims in her essay, *Kant and the Problem of Form: Theories of Animal Generation, Theories of Mind*, that Kant's use of organic vocabulary in the context of sciences of life, which essentially concerns the understanding of human existence, should be carefully distinguished from the recourse to an epigenesis of reason in Kant's model of mind. Mensch argues that Kant would have never supported a naturalization of the human mind and faculties with the help of a teleological approach. Finally, the article of Ana Marta González (Univ. of Navarra, Spain), *Kant on History*, explores the narrative basis of Kant's idea of history, gathering useful remarks from the *Lectures of Logic* and arguing that this reflection on history furnishes the viewer with an "objective narrative" that encourages human beings to fulfill their moral vocation.

This special issue aims at boosting further research on the entangled status of empirical sciences in Kant's thought. I hope all readers of *Estudos Kantianos* enjoy the following pieces.

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