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Book Review

Kusch, Martin. *Relativism in the Philosophy of Science*. Cambridge: Cambridge University Press, 2020. 86 pp. ISBN: 9781108969611, \$ 20.00

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The Rehabilitation of the Uses of Relativism

Relativism in the Philosophy of Science, recently released in the *Cambridge Elements* series of the Cambridge University Press, offers a consistent and well-structured introduction to the study of the most effective forms of relativism in the last 50 years. However, the book goes beyond the usual expectations of introductions to any subject discussed: most introduction books present simplified and unreflective versions of the topic. Contrary to such reductionist approaches, condensed into the limited space of the 30,000 words allowed for the series' books, Kusch presents an analysis that goes far beyond the set of addressed bibliography. The author transits through an infinity of titles chosen for his investigation with great competence, combining rigour and exactness when interweaving the different thinkers' viewpoints, highlighting their due similarities and differences. Therefore, the restricted number of words in the edition and the extensive volume of sources – factors potentially prejudicial to the good progress of any intellectual production –, did not compromise the quality of the results achieved due to the author's extensive knowledge of the subject. Based on the great intimacy with the object of study, Kusch went through the complex labyrinths of the theme with property and equipped with clear and objective language to facilitate the reader's understanding of the density of the debate developed.

Kusch has structured his book in six sections. The first one consists of a brief synopsis of the main themes discussed in the book and an introduction explaining the organisation of the work and clarifying the problems that will be investigated in each part. The second section seeks to elaborate possible answers to the book's central question – “what constitutes relativism?” – by working on the main structuring axes of the relativist frame of reference. The third section examines the different thoughts defended by authors classified

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as defenders of relativism. Are analysed Thomas Kuhn's incommensurability, Paul Feyerabend's anarchism, Hasok Chang's pluralism and Giere Massimi's perspectivism. The fourth and fifth sections evaluate the forms of relativism considered the most promising today by Kusch, especially Bas van Fraassen's voluntarism and the Strong Programme of Sociology of Scientific Knowledge. Finally, the sixth section problematises the strengthening of relativism in Epistemology and Philosophy of Science. It discusses the negative social developments entails by the greater acceptance of relativist ideas currently.

Perhaps the most original point of *Relativism in the Philosophy of Science* resides in its refusal of the traditional forms of conceptualisation employed to characterise relativism as “a doctrine concerning the epistemic status of beliefs” (Kusch 2020, 4). In the dictionary, the words “doctrine” and “belief” refer to the universe of religion in which occurs the learning of dogmas taught by higher authorities to devotees who passively absorb the precepts transmitted, without a will and devoid of freedom of choice. Under Fraassen's inspiration, to avoid erroneous thoughts raised by the vocabulary used concerning relativism, Kusch proposes substituting both terms criticised by the author (doctrine and belief) with the term stance. In turn, the word stance denotes the individual's power of decision in choosing which judgments will shape his possibilities of acting in the world, whose parameters exceed the limits of rationality, to the extent that they suffer the influence of values, virtues, emotions and preferences. Thus, Kusch defends Fraassen's “voluntarism”, a theory of rationality according to which the will of the subject of knowledge has a privileged place in defining which philosophical traditions will guide him in selecting his commitments in the future investigation process.

Kusch appropriates the voluntarism sustained by Fraassen to explain adherence to relativism as a stance-taking. Namely, a subject decision defined by each author who supports ideas encompassed by the relativist frame of reference. Nevertheless, by diagnosing the diversity of different thinkers encompassed under the same classification, Kusch presents the valuable concern of highlighting how relativism does not constitute a mere gathering of homogeneous stances. He invalidates any reader's predisposition to inappropriately project any philosophical approach as a single and cohesive totality due to the existing convergences between the positions of most adherents. However, despite valuing the plurality of relativist points of view, Kusch understands it is fundamental to elaborate a general definition of what is considered relativism through three tenets: (1) the struggle against absolutism, (2) the opposition to the idea that “anything goes”, (3) the defence of epistemic tolerance. These tenets are shared by a large part of the defenders of this philosophical perspective. Let us look more closely at each principle:

(1) Relativism fights against the existence of Archimedean points in the sciences, that is, permanent knowledge structuring axes, non-alterable and independent of time, space or points of view, as rationality and or experimentation supposedly are. Relativism is opposed to the idea that the results obtained by scientists, when based on secure foundations, would provide literal descriptions of the world, translated into propositions capable of portraying phenomena the way they occurred.

(2) The lack of general measures enables the proliferation of theories considered neither universally true nor universally false and creates responses conditioned by the set of standards to which they belong, i.e., in the society and the time in which they are inserted. However, while noting the impossibility of any scientist issuing judgements with universal validity, relativism does not accept all the scientist's conclusions as if they were on the same epistemic level.

(3) Theories will vary according to the epistemic virtues of “accuracy”, “simplicity”, “objectivity”, and “fruitfulness”, that is, values cultivated by science based on which

scientists will choose which of them will best meet the expectation of adequacy to the world. For relativism, all the results obtained by the scientist, even if differently articulated to the phenomenon, may coexist among themselves in harmony if they contain consistent evaluations, capable of preserving fidelity to the set of standards from which they come.

In *Relativism in the Philosophy of Science*, after delimiting the general peculiarities of relativism, Kusch traces the most frequent ideas present in the works classified as relativists. Amidst the vastness of existing forms of relativism, he has chosen five pillars considered responsible for explaining the affinities between the viewpoints of relativists that are understood as those that will provide identity to this philosophical perspective. Thus, based on a detailed analysis of the intellectual productions of the authors studied, Kusch constructed a schematic model of relativism – which he names “relativist spectrum” – considering five notions that he interpreted as essential to characterise this philosophical perspective. These main principles are *dependence*, *plurality*, *conflict*, *conversion* and *symmetry*. The “relativist spectrum” is an “ideal type” from a Weberian perspective.

Dependency alerts us to how theories will be considered true or false, according to the rules of the set of standards to which they belong. *Plurality* attributes legitimacy to more than one set of standards for explaining the same dimension of the world. *Conflict* occurs when the epistemic judgments of different sets of standards exclude each other mutually. *Conversion* occurs when the individual adopts a different set of standards from the previously shared one. However, this conversion occurs not only motivated by the quality of the new alternative, the evidence collected or a priori beliefs as by the quasi-religious experience of the faith-based choice. *Symmetry* finds the existence of symmetric sets of standards when: (a) they have local, contingent and variable credibility causes; (b) they are not assessable as true or false by the classification terms of another set of standards from which they did not originate; (c) they are equally true.

To explore the different forms of relativism, Kusch draws comparisons between the elaborated ideal type (the “relativist spectrum”) and the positions held by the thinkers and an intellectual movement traditionally interpreted as relativist: Kuhn, Feyerabend, Chang, Massimi, Frassen and the Strong Programme.

According to Kusch, in the “relativist spectrum” there is a perfect agreement between the meanings of the ideal type and the investigated reality or the relativist frame of reference. Nevertheless, the “relativistic spectrum”, like any other ideal type, accentuates certain aspects considered fundamental in relativism and ignores others as less important. In doing so, Kusch runs the risk of artificially simplifying the forms of relativism worked on, framing all the complexity and richness of the authors’ thoughts analysed within the narrow limits of the “relativist spectrum”. However, due to the interventions made to enable the visualisation of the specificities of each investigated point of view, Kusch was prevented (at least partially) from promoting a reductionist approach to relativism.

Unlike much of the specialised literature, Kusch does not locate the birth of the relativist frame of reference when Kuhn’s most famous book, *The Structure of Scientific Revolutions*, was published. In contrast, Kusch undertakes the significant commitment of dismantling the false interpretation as to the antecedents of relativism. *The Structure of Scientific Revolutions* introduced profound transformations in understanding scientist/world relations that were considered fundamental in propagating relativism. Kuhn intensified the interpretation according to which social aspects interpenetrate the epistemic factors of science knowledge. After Kuhn also, there was a growing reevaluation of neglected authors who disseminated similar idea before him, such as Mannheim and Fleck.

For Kusch, Kuhn disseminates the relativist views defended in *The Structure of Scientific Revolutions*. What happens when Kuhn structured as the axes of the book: paradigm, revolution and incommensurability. However, Kuhn fought tirelessly to rid himself of the

classification received as a relativist. Of course, due to the pejorative content conventionally contained in the designation. Kusch recognises the differences in the conceptualisation established in *The Structure of Scientific Revolutions* and Kuhn's articles gathered in *The Road since Structure*. However, Kusch does not mention that Kuhn implemented changes to minimise negative consequences caused by the arbitrary use of paradigm, revolution and incommensurability. Insofar these concepts would identify the North American thinker to relativism.

When working on the main influences suffered by the thinkers studied, such as Kuhn and Fraassen, and the intellectual movement of the Strong Programme, Kusch elucidates who would be for him the true precursors of relativism: Kant and Wittgenstein. Kusch does not even mention the appropriations made by Kuhn of Fleck and the Strong Programme of Fleck and Mannheim. However, both authors are cited as significant references in elaborating *The Structure of Scientific Revolutions* and *Knowledge and the Social Imaginary*. Kusch's forgetfulness – intentional or not – harmed the quality of the argumentation of his book. Unfortunately, he did not recognise the pioneering spirit of Fleck and Mannheim in the creation of an idea that is fundamental to relativism: the historicity of the results found in science.

Fleck and Mannheim were the thinkers who pioneered the detection of how the relations between scientist/world were local and contingent and originated knowledge whose classification as true or false would depend on the *thought-style* practised in science. Probably, the incorporation of Kant among the authors who pioneered the dissemination of relativism is much more problematic than Kusch assumes. Many drawbacks hinder Kant from being inserted among the diffusers of relativist ideas since the German thinker defends the “thing in itself” and “categories” inherent to the subject of knowledge, independent of experience (the *analytical a priori judgment*).

Approximately after ten years, the relativistic ideas presented in *The Structure of Scientific Revolutions* were radicalised by authors who defended a relativistic stance. Perhaps these authors have gone far beyond Kuhn's book, despite starting from it. Kuhn always sought to preserve the balance between the participation of nature and society in science. Nevertheless, a large proportion of the adherents to the North American thinker's views did not share the same understanding and moved the pointer of the scales to undo the proportionality desired by Kuhn. One can see this movement, for example, in the Strong Programme. Kuhn did not support any inappropriate overvaluation of the role of social instances in science that was supposedly influenced by his relativism. He criticised the subordinate position to which world observation and scientific experimentation were condemned. Specifically, Kuhn criticised the Strong Programme and its derivatives, Shapin and Schaffer's *Leviathan and the Air-Pump*. The author of *The Road since Structure* contested precisely how the Edinburgh school had (mistakenly) diminished the role of natural phenomena and experiments in the understanding of science.

According to Kusch, Bloor elaborated his Strong Programme based on four pillars: *causality, impartiality, symmetry and reflexivity*. To transform the abstract constitutive bases of the Strong Programme into concrete deployments, Kusch chooses to exemplify the application of the Edinburgh school's structures in Shapin's book *Homo Phrenologicus*. However, although Shapin acknowledges in published works (as in *Leviathan*) his inspiration in the Strong Programme, it is a controversial issue to what extent he effectively incorporates the ideas of the Edinburgh school or even whether he shares the rules of the regulation adopted by its respective members. Perhaps Shapin gives due acknowledgement to the Strong Programme as an academic formality, simply because both share common influences originating from the same institution, the Unit of Science of the University of Edinburgh.

Kusch alerts the fact that many current denialist movements use the core references of the Strong Programme to ground their questioning of the cognitive authority of science. The author laments how exaggerations committed by militancy, justified by relativism, are

unduly charged to the account of the Strong Programme. Of course, these exaggerations contribute to the stigmatisation of this intellectual movement by the (supposed) adherence of radicals. The denialist movements contest the scientist's credibility, a professional considered less trustworthy than non-rational resources employed by militants, such as instincts, emotions and personal beliefs (*post-truth*). The historically given conditions of science, valued by relativism, are purposely manipulated by the denialist movements and recognised as permission for protesters to doubt the legitimacy of knowledge validated by the scientist. Therefore, Kusch draws attention to the disservice done to relativism (particularly to the Strong Programme) due to the failure to acknowledge the advances made by relativist thinking in a scientific investigation.

Kusch decisively contributes to resizing the discussions on relativism by defining his central goal to analyse this philosophical perspective, not committed to reproducing derogatory views of the relativist frame of reference. According to Kusch, it would be enough for his book to fulfil this purpose to be considered successful: "I would be satisfied if this Element triggered the additional charitable exploration of these and other relativistic proposals in the philosophy of science" (Kusch 2020, 64). Since the 1930s, the scientific ideals propagated by Reichenbach's division have constituted the main epistemic instrument used for the diffusion of distorted projections of relativism. These misinterpretations detested relativist intellectuals as propagators of irrationalism, whose works deserved ostracism (as happened with Fleck and Mannheim). At most, the authors accused of relativism were allowed to interpret the production of knowledge in science confined to the exteriority of the reclusive work of the "context of justification". Many of those banished to the "context of discovery" described the historically given science conditions as mere ornamental scenery that would decorate the scientist's work routine. Thus, it was necessary to recognise the participation of sources of influence originating from society in the results produced by science.

Although Kusch does not directly portray the factors responsible for the stigmatisation of relativism, his book makes it possible to reflect on which motives collaborated to foster the fight against this philosophical perspective. The most forceful challenge against relativism is its supposed opposition to the defence of empiricism/realism. Kusch stresses that the questioning directed by relativism to the "thing in itself" and the term-to-term correspondence of theory to phenomenon would not mean to annul the fundamental role of world observation and scientific experimentation. Kusch points out that Fraassen and the Strong Programme represent the most promising forms of relativism today fundamentally due to their affinity with empiricism/realism. However, the author does not clarify which mechanisms the new objectivity shared by Fraassen and the Strong Programme would be compatible with the relativist frame of reference.

Nevertheless, while rejecting the negative stereotypes associated with relativism, Kusch prevents the ideas of the relativists from receiving the same mistaken treatment defended by the absolutist stance that they are so critical. Discussing relativism from an absolutist perspective would occur if Kusch understood it as the only possible epistemic option. However, he relativises the "relativist spectrum" principles when choosing two antagonists to dialogue with relativism: Boghossian and Friedman. Kusch highlights the incompatibility between the Strong Programme on the one hand and Boghossian and Friedman on the other. Kusch addresses two points: the Boghossian's disagreement with the relativist ideas of *conflict* and *dependency* and Friedman's critique of the ethnologist view of science.

However, Kusch misses an opportunity to investigate other truculent oppositions suffered by the investigated relativists and the organised offensives in defence of the legitimacy of the relations between the theories of science held by these two studied thinkers and relativism. I have in mind Kuhn's ignored criticism against the radicalism of the Strong Program's relativist ideas and its followers – perhaps this episode was the main

disagreement within relativism. Kuhn identified in the scientist's capacity for persuasion and his prerogatives enjoyed due to the position held or the historically given conditions of science, mistakenly overestimated ingredients (although the author recognised them as relevant for knowledge production).

According to Kuhn, the observation of the world and the carefully conducted experimentation, the rigour in the use of concepts and the good rational structuring of arguments would provide sufficiently strong reasons to legitimise the theories defended. Nevertheless, Kusch does not go through any problematisation of a similar nature as Kuhn. Kusch does not extend the explanations on the subject by only finding in relativism and empiricism/realism similar interpretations. However, the overvaluation of the historically given conditions in science almost necessarily leads relativist authors to take abrupt deviations in their approach to natural phenomena.

The exaggerated emphasis on negotiations, authority and power in science naturally express extreme interpretations committed by relativism. Thus, radical relativist positions do not always correspond to the pure result of the action of negationist movements, as Kusch suggests. Therefore, although Kusch seeks to promote compatibility between relativist and empiricist/realist ideas, he has not expended enough energy to point out how relativism efficiently works for the scientist/world relation or to overcome prejudices embedded in relativism. Describing relativists as opposed to valuing natural phenomena is a point of view still very much ingrained in the academic community, so Kusch should mobilise more efforts to fight the stigmas projected onto relativism.

By way of conclusion, it is worth drawing attention to how Kusch invites the reader to reflect on the importance of rehabilitating the uses of relativism and the advantages of adopting relativist ideas in the interpretation of science. Relativism's defence of the connection of historically given conditions to the epistemic factors of knowledge corresponds to the most efficient confrontation in dismantling the scientific ideals propagated from Reichenbach's division to the present day. Scientism would describe the production of true knowledge as a result that would depend exclusively on the correct application of the methodology in science and on the scientist's geniuses, free from any connection with the place of origin of the professional's creations. The plural influences originated in everyday life would be considered "harmful interferences" because, by invading the core of the investigation process, they would prevent the discovery of truth by leading the scientist fatally to false conclusions. Knowledge production would register the evolution of ideas logically linked together, capable of causing the emergence of other new ones by spontaneous generation, in total independence of the historically given conditions. At most, the context of insertion of the scientist would fulfil the task of constituting the "background" that would set the place where the investigation process would take place.

Relativism defends the attribution of historicity to the epistemic factors of science when it recognises the context of discovery and the context of justification as an undifferentiated totality. In this totality, the epistemic factors of knowledge might deeply merge with the historically given conditions. The community of scientists enjoys autonomy in defining the scientific parameters capable of guiding how professionals will organise the observation of phenomena, the experiments tested and the evaluation of mathematical proofs. Still, science is not simply separate in this manner. The plural influences of everyday life act redirecting the direction of the investigation of the problems posed by the population to science. These social factors inspire the scientist for new ideas or even remodel his cognitive capacity by defining rules and conduct. Therefore, the rehabilitation of the uses of relativism, defended by Kusch, is of fundamental importance. It enables the opening of new horizons to investigate the production of knowledge in science, such as recognising the historicity of epistemic factors.

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