


## THE SOCIAL EPISTEMOLOGICAL FUNCTION OF THE NOTION OF “REGIMES OF TRUTH” IN MICHEL FOUCAULT: A CONFRONTATIONAL ANALYSIS WITH KUHN’S HISTORICAL EPISTEMOLOGY

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### Resumen

El objetivo de este artículo estriba en analizar la obra de Foucault en clave epistemológica a partir de la noción, ciertamente política, de “régimen de verdad”. Para ello partiremos de una comparación con la obra de Kuhn a fin de enfatizar la función epistemológica de dicho concepto. Así, argumentaremos que el proyecto de Foucault no sólo es análogo al de Kuhn, sino también complementario al mismo, ya que con Foucault se pueden ampliar las consideraciones teóricas sobre la ciencia, especialmente aquellas vinculadas a la epistemología de las ciencias sociales, incluyendo factores políticos, como los valores y creencias, que inciden en el desarrollo del conocimiento social.

**Palabras clave:** Foucault; Kuhn; régimen de verdad; política; epistemología social.

### Abstract

The aim of this article is to analyze Foucault's work from an epistemological point of view, starting from the admittedly political notion of “regime of truth”. To do so, we will start from a comparison with Kuhn's work to emphasize the epistemological function of this concept. Thus, we will argue that Foucault's project is not only analogous to Kuhn's, but also complementary to it, since with Foucault it is possible to broaden the theoretical considerations on science, especially those linked to the epistemology of the social sciences, including political factors, such as values and beliefs, which influence the development of social knowledge.

**Keywords:** Foucault; Kuhn; regime of truth; politics; social epistemology.

## INTRODUCTION

It was not until the publication of *The Structure of Scientific Revolutions* (1962) by Thomas Kuhn that epistemological studies in the Anglo-Saxon sphere began to discuss the issue of the historical nature of science with greater assiduity. Previously, the neopositivist approach ignored both the temporary paths of the construction of knowledge, and the social dynamics of the scientific community (Theodore and Galen, 1974; Kvasz, 2014; Franco, 2021)<sup>1</sup>. The discontinuity in the historical display of knowledge is one of the major themes introduced by this book (Arrieta, 2018; Brush, 2000; Roush 2015). The academic literature on this text often presents elucidations that agree with the work or develop some aspect of it (Cupani, 1996; Wray, 2011; Pirozelli, 2019), critical observations on the topics of relativism or irrationality (Popper, 1970; Lakatos, 1980; Bird, 2011, but also comparisons with other philosophical traditions (Foucault, 1978 and 1994c; Simons, 2017; Peña-Guzmán, 2020; Sciortino, 2021). This article aims to situate itself within this last group of texts on Kuhn in order to confront his position with that of Michel Foucault, but offers a twist that contrasts with the usual academic literature. As is known, Foucault’s work is treated from the coordinates of political philosophy or cultural studies (Dreyfus and Rabinow, 1982; Gutting, 2006). And when his work has been interrogated from an epistemological point of view, and even more so in counterpoint with Kuhn, emphasis has been placed on the concept of “episteme”, which appears in *Les mots et les choses* (1966) (Piaget, 1974; Agamben, 2009; Simons, 2017; Sciortino, 2021; Pirozelli, 2021). Well then, the present article seeks to make a comparison between Kuhn and Foucault, but offering a divergent approach, namely: to analyze a concept of the French philosopher that, on the one hand, has been neglected in its epistemological sense by the Foucauldian literature and, on the other hand, has not been taken into account by the Kuhnian comparative literature: we refer to the notion of “regime of truth” (*régime de vérité*)<sup>2</sup>. Such a comparison will also have a precise methodological purpose: to elucidate not only the parallelism between the authors, but also the possible complementarity between them in order to reflect on the assumptions of a social epistemology. In this way, our research question is the following: what does Foucault’s notion of “regime of truth”, seen from the Kuhnian counterpoint, contribute to epistemological studies on social sciences? In order to answer this question, we will proceed in three stages. In the first part we will discuss some notions of Kuhn’s work that are comparable to those of Foucault. In a second part, we will trace the emergence of the concept “regime of truth” to emphasize the meaning it acquires in the Foucauldian corpus. And in a third part we will argue in what sense Foucault’s project can not only be analogous or mutually consistent to Kuhn’s, but also, with the introduction of the syntagma “regime of truth”, as supplementary to it, since with Foucault one can broaden the theoretical and practical considerations about science –especially in the case of the epistemology of the social sciences– by including political factors, such as the values and beliefs that affect the development of social knowledge.

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<sup>1</sup> A notable exception was Ludwik Fleck’s work (Fleck, 1979), originally published in 1935, *Genesis and Development of a Scientific Fact*, translated into English in 1979 with a preface by Kuhn. Still, Irzik (2013) argues that there was already a similarity between the work of Carnap and Kuhn.

<sup>2</sup> Just as in the comparison with Kuhn, the studies cited by Simons (2017), Pirozelli (2021), Sciortino (2021) have taken only the notion of “episteme”, in the Foucauldian literature the syntagm “regime of truth” has been discussed, above all, from a political and ethical point of view; see in this regard Lorenzini (2010), Castro (2016), Ayala-Colqui (2020a), Guerrier (2020) and Sabot (2020).

## KUHN: DISCONTINUITY BETWEEN PARADIGMS, ENDOGENOUS FACTORS FOR PARADIGM SHIFT AND CONVERSION OF THE SCIENTIFIC COMMUNITY.

In 1957 Kuhn published *The Copernican Revolution*. Here he stresses the discontinuity between Aristotelian physics and Copernican physics: “Copernican astronomy destroyed traditional answers to these questions, but it supplied no substitutes. A new physics and a new cosmology were required before astronomy could again participate plausibly in a unified pattern of thought” (Kuhn, 1995, p. 230). Thus, in such a scientific change, the American epistemologist prefigures, although without explicitly naming it, his later concept of paradigm as a shared example that establishes the limits of the problems and solutions accepted in each era: “These new problems, new techniques, and new evaluations constitute the new perspective that seventeenth-century science gained from Copernicanism” (Kuhn, 1995, p. 231). Although the famous 1962 text, *The Structure of Scientific Revolutions*, modifies some of the conceptual premises of this first book –for example, the relationship between theory and observation and the truth value of theories (Melogno, 2016)–, it makes at the same time a generalization of that one, since it is an epistemological, and no longer merely historical, disquisition on the interrupted and changing character of scientific production (Arrieta, 2016b). What in the previous text was the historical example of a substantive modification in the field of knowledge; in the second text it is just another case within the heuristics of scientific revolutions. Kuhn (1996) then outlines the course of science: fragments of science that are not yet condensed into a homogeneity or paradigmatic unity, normal science where a “paradigm” shared by scientists is established, the presence of anomalies that generate a crisis in the sense that they cannot be solved within the framework of the current paradigm, scientific revolution as the irruption of a new paradigm. This historical sequence, at once descriptive and normative (Wray, 2011), indicates to us that science is not only discontinuous, but also has a “non-cumulative developmental episodes” (Kuhn, 1996, p. 92) breaking with the traditional image of progress (Simons, 2017; Sciortino 2021):

The transition from a paradigm in crisis to a new from which a new tradition of normal science can emerge is far from a cumulative progress, one achieved by an articulation or extension of the old paradigm. Rather it is a reconstruction of the field from new fundamentals, a reconstruction that changes some of the field’s most elementary theoretical generalizations as well as many of its paradigm methods and applications. (Kuhn, 1996, pp. 84-85)

However, this image, easily interpreted as relativistic, should be nuanced, since Kuhn points out that, within a paradigm during the domain of a normal science, there can be an accumulation of knowledge: “Normal science, the puzzle-solving activity we have just examined, is a highly cumulative enterprise, eminently successful in its aim, the steady extension of the scope and precision of scientific knowledge” (Kuhn, 1996, p. 52). Consequently, there can also be progress within normal science: “Later scientific theories are better than earlier ones for solving puzzles [...]. That is not a relativist’s position, and it displays the sense in which I am a convinced believer in scientific progress” (Kuhn, 1996, p. 206).

Thus, strictly speaking, there is only rupture and absence of accumulation of knowledge in the transition that occurs between different paradigms: it is, therefore, what is known as the incommensurability of paradigms (Céspedes, 2018). In this respect, two questions need to be clarified. On the one hand, Kuhn does not deny, without further ado, the possibility of an exchange of information, much less the coexistence of two paradigms in the same epoch:

"there are circumstances, though I think them rare, under which two paradigms can coexist peacefully in the later period" (Kuhn, 1996, p. xi). On the other hand, Kuhn clarifies his position in the postscript of 1969 by indicating that incommensurable paradigms should be read as the problem of translation between two different linguistic communities (Sankey, 1993). Indeed, as he writes in the 1983 conference "Commensurability, Comparability, Communicability", rival paradigms can have a certain level of interchangeability, since incommensurability is only local:

Applied to the conceptual vocabulary deployed in and around a scientific theory, the term 'incommensurability' functions metaphorically. The phrase 'no common measure' becomes 'no common language'. The claim that two theories are incommensurable is then the claim that there is no language, neutral or otherwise, into which both theories, conceived as sets of sentences, can be translated without residue or loss. No more in its metaphorical than its literal form does incommensurability imply incomparability, and for much the same reason. (Kuhn, 1983, p. 670)

Likewise, in "Remarks on Incommensurability and Translation", Kuhn (1999) writes: "Incommensurability is always local, restricted to small sets of interrelated terms, which must be learned together" (p. 34). In other words,

Incommensurability thus becomes a sort of untranslatability, localized to one or another area in which two lexical taxonomies differ. The differences which produce it are not any old differences, but ones that violate either the no-overlap condition, the kind-label condition, or else a restriction on hierarchical relations that I cannot spell out here. Violations of those sorts do not bar intercommunity understanding. (Kuhn, 2000, p. 93)

For this reason, we can say Kuhn's position is not relativistic. If we understand relativism as the idea that there is no objective truth, Kuhn is not a relativist. At most he moves within a conceptual relativity: the objective truth belongs to some conceptual system. In this order of ideas, unlike Popper (2002), Kuhn (1996) points out that the task of science is not to falsify its theories by comparing them directly with reality, but, in the case of the stage of normal science, to solve problems based on the assumptions of the current paradigm:

In the sciences the testing situation never consists, as puzzle-solving does, simply in the comparison of a single paradigm with nature. Instead, testing occurs as part of the competition between two rival paradigms for the allegiance of the scientific community. (Kuhn, 1996, p. 145)

A paradigm shift is explained, therefore, not because a theory is falsified, but because another paradigmatic theory makes it possible to solve the questions that appeared to be insoluble from the old paradigm.

Nevertheless, it should be noted that the term paradigm in Kuhn is far from being univocal: there are, at least, twenty-two senses of it in his 1962 book (Masterman, 1970). Aware of this, in the 1969 postscript to his book *The Structure of Scientific Revolutions* and in "Second Thoughts on Paradigms", Kuhn (1996 and 1974) points out that there are two fundamental senses of paradigm: a) a "disciplinary matrix" composed of techniques and models shared by a scientific community and b) explicit rules that, by determining the questions and possible answers, define the directions of scientific research in a given context.

Kuhn explains scientific changes by resorting only to endogenous factors (Wray, 2011; Bird 2015), i.e., this is an "intra-theoretical" explanation (Kuhn, 1970, p. 162) of science changes without regard to political, social, ideological or technological motives: "More important, except in occasional brief asides, I have said nothing about the role of the technological advance or of external social, economic, and intellectual conditions in the

development of the sciences” (Kuhn, 1996, pp. xi-xii). Although Kuhn recognizes some importance to these elements, he admits that “issues of that sort are out of bounds for this essay” (Kuhn, 1996, p. 69). A comparison with his 1957 historiographical book shows that there is a shift from an “externalist” to an “internalist” perspective in the 1962 book (Melogno, 2022), i.e., Kuhn once paid more attention to extrinsic factors in science, and then brackets these factors in his book (Bird, 2015).

Despite Kuhn opted for an intra-discursive view of science, his approach did not dispense with the social community of scientists (Kvasz, 2014). Indeed, paradigms only exist if they are shared by a community of scientists. And, moreover, a change of paradigm fundamentally affects the scientist: there is a “members’ conversion to the new paradigm.” (Kuhn, 1996, p. 19). A conversion that does not exclude “faith”:

He must, that is, have faith that the new paradigm will succeed with the many large problems that confront it, knowing only that the older paradigm has failed with a few. A decision of that kind can only be made on faith. (Kuhn, 1996, p. 158)

This prompted Lakatos to write as follows:

For Kuhn scientific change –from one ‘paradigm’ to another– is a mystical conversion which is not and cannot be governed by rules of reason and which falls totally within the realm of the (*social*) *psychology of discovery*. (Lakatos, 1980, p. 9)

Kuhn attempts to clarify this misunderstanding in a 1973 text entitled “Objectivity, Value Judgment, and Theory Choice” (Kuhn, 1977). Here he points out that the choice made by the community of scientists is not at all arbitrary, much less irrational. The choice of one theory over another is made on the basis of epistemic values which, moreover, are not relative, but always universal. Kuhn (1977) lists five characteristics, values instead of rules, of a “good scientific theory”: “These five characteristics –accuracy, consistency, scope, simplicity, and fruitfulness– are all standard criteria for evaluating the adequacy of a theory. [...] they provide *the* shared basis for theory choice” (p. 322). But, for another hand, does the fact that there are non-scientific factors for the choice of scientific theories condemn scientists to irrationality without more?

In any case, what would Foucault’s introduction into this discussion with his notion of “regime of truth” contribute? What could we say from an epistemological reading of Foucault regarding the discontinuity of knowledge, an endogenous history of knowledge and, finally, the relationship between knowledge and subjectivity?

## **FOUCAULT: DISCONTINUITY AND OVERLAP BETWEEN TRUTH REGIMES, EXOGENOUS FACTORS FOR THE CHANGE OF TRUTH REGIMES AND CONVERSION OF SUBJECTIVITIES.**

Foucault entered the field of historiography with his book *Histoire de la folie* (1961), which was originally his doctoral thesis, where his thesis director was Georges Canguilhem (Eribon, 1991), another great philosopher of science who would introduce the question of discontinuity in knowledge (Canguilhem, 1972; Foucault, 1972; Simons, 2017)<sup>3</sup>. Here Foucault will not hesitate to detect major cessations in the thematization of madness in the history of the West. Later, in *Les mots et les choses* (1966), he expands and systematizes his

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<sup>3</sup> For a panoramic view of Foucault's previous books and youth manuscripts, see Sabot & Ayala-Colqui (2021).



ideas by configuring an “archaeology of knowledge”, different from the history of ideas or sciences, whose objective is to study

on what basis knowledge and theory became possible; within what space of order knowledge was constituted; on the basis of what historical *a priori*, and in the element of what positivity, ideas could appear, sciences be established. (Foucault, 2005b, p. xxiii)

This historical *a priori*, which serves as a condition of possibility of knowledge for an epoch, is called by Foucault (2005b) “episteme”, a term that, due to its definition, has been compared many times with Kuhn’s concept of paradigm, as we have already pointed out (Piaget, 1974; Agamben, 2009; Pirozelli, 2021). Afterwards, the French philosopher published *L’archéologie du savoir* (1969), where he offers an epistemological reflection on his method and conceptualizes not only science, but any possible statement (scientific or not) as a set of discursive events (Foucault, 2002; Arrieta, 2016a).

With respect to these first three works, it is worth making the following clarification along the lines of a comparison with Kuhn. Although both authors assume a discontinuous look at history, in the case of the first Foucault texts there is no reference to the subjects that produce knowledge, but, on the contrary, a bracketing of them (Ayala-Colqui, 2021):

Continuous history is the indispensable correlative of the founding function of the subject: [...]. Making historical analysis the discourse of the continuous and making human consciousness the original subject of all historical development and all action are the two sides of the same system of thought. (Foucault, 2002, p. 13)

However, in 1971 in “L’ordre du discours”, Foucault modifies his position by adding a transversal concept: the notion of power. Thus, the changes produced in the field of knowledge are not merely discursive, but also involve the presence of political forces. (Foucault, 1981). This implies paying attention to the relationship between discourses and subjects, since power acts on the subjects: the individuals of a society are nothing but “effects of these fundamental implications of power-knowledge and their historical transformations” (Foucault, 1995, p. 28), that is to say, in a real social community there are, inevitably, power relationships that affect the subjects that make it up<sup>4</sup>. Foucault then shifts his gaze and, instead of the archaeology of knowledge, he carries out a genealogy of power (Mahon, 1992). Would this mean, however, abandoning epistemic considerations on the slippages of knowledge?

When Foucault, from the 1970s onwards, speaks of knowledge-power, he is only referring, as we have already noted, to exogenous factors –especially social and political factors– that influence, in one way or another, the development of knowledge. This political approach to discourses is thought by Foucault with the initial syntagma of “history of truth” in *Leçons sur la volonté de savoir* (1970-1971) (Foucault, 2013). Such expression in “La vérité et les formes juridiques” (1973) is explained as follows:

The hypothesis I would like to propose is that there are two histories of truth. The first is a sort of internal history of truth, the history of a truth that corrects itself on the basis of its own principles of regulation: it is the history of truth as it has been done in, or from, the history of sciences. Conversely, it seems to me that in society there are [...] many other places where truth is formed, where a certain number of rules are defined [...] and, consequently, one can, from this, make an external, exterior, history of truth. (Foucault, 1994a, pp. 540-541; the translation is mine)

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<sup>4</sup> The Foucauldian notion of power has been elucidated, in the coordinates of the analytical tradition, by Fricker (2007).

Foucault puts this conjecture to the test in his lecture by showing how certain political transformations, with a view to justifying new penal procedures, promoted and, at the same time, made use of scientific discourses such as psychiatry or judicial discourse. In this respect, Foucault uses another syntagma to designate this externalist enterprise: “politics of truth” (Foucault, 1994a, p. 550; the translation is mine). Under such a view, “the political and economic conditions of existence are not a veil or an obstacle for the subject of knowledge, but that through which the subjects of knowledge are formed and, therefore, the relations of truth” (Foucault, 1994a, pp. 552-553; the translation is mine).

It is under this same theoretical framework that Foucault in *Le Pouvoir psychiatrique* (1973-1974) studies the political conditions of emergence of a discourse on mental illness.

In this text we are interested in highlighting a contrast established by the French writer: we refer to the distinction between “truth-demonstration” and “truth-event”. The first truth would be accessible, in the author’s opinion, to all subjects if the proper method is followed; the second, on the contrary, is only accessible to a privileged few and at certain propitious moments:

We have, then, two series in the Western history of truth. The series of constant, constituted, demonstrated, discovered truth, and then a different series of the truth which does not belong to the order of what is, but to the order of what happens, a truth, therefore, which is not given in the form of discovery, but in the form of the event. (Foucault, 2006, p. 237)

As Lorenzini (2010) has noted, the truth-event refers to a broader history of the ethical and ascetic practices of the subjects that Foucault is interested in studying, especially in his last courses at the Collège de France (1980-1984) and in his second and third volumes of the *Histoire de la sexualité* (Sabot, 2020). Nonetheless, is only an ethical reading (spiritual and acetic) of the concept “truth-event” possible? Here we want to propose an epistemological reading, and not simply an ethical one, of this notion. Indeed, just as Kuhn pointed out that the paradigm shift implied a “conversion” in the scientific community, we can point out that the truth-event is an event (*événement*) that breaks with the given in the field of knowledge, and that such an irruption requires a “transformation” in the beliefs of the subjects of knowledge, i.e., the scientists<sup>5</sup>. This is what Foucault calls a “historical-philosophical” approach to the relationship between truth and subjectivity<sup>6</sup>. It will be objected that Kuhn, unlike Foucault, does not restrict the discontinuity of knowledge to a privileged few. However, it should be pointed out that, strictly speaking, only a small number of people have proper access to scientific knowledge: the community of specialists.

The idea that knowledge, whether demonstrative or eventual, is imbued with power relations will be exemplified, moreover, in several books. *Surveiller et punir* (1975) analyzes, for example, the political practices that influence the imposition of a disciplinary and prison

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<sup>5</sup> Later Alain Badiou (2007) will elaborate a theory of the event where the discovery of a scientific truth is an undecidable and unpredictable event that forces a transformation of the subjects. For the discontinuist sense of the concept of event in Foucault, as well as for a comparison with Badiou’s proposal, cf. Ayala-Colqui (2019).

<sup>6</sup> In the course *Subjectivité et vérité* (1980-1981) Foucault wrote: “The first, philosophical way of formulating “subjectivity and truth” relations is summed up in a word: it is the question of the possibility of a truth for a subject in general. The second way, which I have called positivist, thinks about the possibility of telling the truth about subjectivity. And the third way, which may call, if you like, historico-philosophical, wonders what the effects on subjectivity are of the existence of a discourse that claims to tell the truth about subjectivity” (Foucault, 2017, p. 11). Hence Foucault (2005a) is interested in the course *L’herméneutique du sujet* (1981-1982) in the question not how a truth is cognitively accessed, but what subjectivity transformations are involved in assuming a given truth Cfr. Lorenzini (2010), Sabot (2020) and Vélez Vega (2020).

model based on the use of criminal and psychiatric knowledge, and *La volonté de savoir* (1976) study how the power relations that hover over sexuality produce some knowledge about sexuality that manifests itself in a constant discourse on sex and in psychoanalytic, psychiatric, moral theories, etc.

In *Du gouvernement des vivants* (1979-1980) Foucault once again underlines the external factors that influence the elaboration of knowledge. And, for this, he elaborates a third syntagma, which takes up his project of a political history of truth: the "(an)archeology" (*anarchéologie*) of knowledge. The author gives this a very specific task:

The problem will be regimes of truth [...]. [It] implies rather that we take the multiplicity of regimes of truth into consideration [and] the fact that every regime of truth, whether scientific or not, entails specific, more or less constraining ways of linking the manifestation of truth and the subject who carries it out. (Foucault, 2014, p. 100)

Therefore, the French philosopher has made a double move: methodologically he has replaced the archaeology of knowledge with an anarcheological "politics of truth" and conceptually he has replaced his concept of episteme with that of "regime of truth" (*régime de vérité*) –or, alternatively, with "truth game" (*jeux de vérité*), "veridiction" (*véridiction*) and/or "aleturgie" (*aléthurgie*) (Castro, 2016; Ayala-Colqui, 2020a; Guerrier, 2020)<sup>7</sup> –. Foucault defines the latter term as follows:

By regime of truth I mean that which constrains individuals to a certain number of truth acts [...]. Why not, after all, speak of truth obligations in the same way as there are political constraints or legal obligations? [...]. It would involve truth obligations that impose acts of belief. (Foucault, 2014, pp. 93-94)

This notion applies not only to scientific knowledge, but also to the cultural and social uses of other types of discourse, even if they are not true in the sense that they have not been empirically corroborated, since they also give rise to obligations: for example, the coercions induced by Christian dogmatics with respect to sexuality or those induced by economic doctrines with respect to the norms and prescriptions of citizenship. In this sense, the notion of truth regime is broader than that of paradigm, since it encompasses both scientific and non-scientific paradigms (i.e., cultural, religious, social):

[Science] It is a regime in which the truth constrains and binds because and insofar as it is true. And on that basis, I think it must be understood that science is only one of the possible regimes of truth and that there are many others. (Foucault, 2014, p. 99)

Just as epistemes used to announce discontinuities in knowledge, now Foucault not only thematizes epistemic ruptures, but also explains them on the basis of the introduction of exogenous criteria. In both authors, however, it is about a certain "game": in Kuhn's case it is about a task that solving puzzles, in Foucault's case it is about a game of political forces that conditions the proliferation and the limits of discourses. For Foucault, the term game is understood as follows: "The word "game" can be misleading: when I say "game" I mean a set

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<sup>7</sup> The notion of veridiction appears in the course *Naissance de la biopolitique* (1978-1979) associated with the discourses proposed by the liberal form of government where the market appears as a place of "truth" of social practices (Foucault 2008).

Needless to say, Foucault's position broadens in the last stage of his life. In his last two courses at the Collège de France, the author will invert his perspective to some extent: it is no longer truth that is elaborated from political power, but it is truth, in the form of cynical *parresia*, that confronts and stands up against power (Guerrier 2020; Sabot 2020).



of rules for the production of truth. It is not a game in the sense of imitating or playing the comedy of...; it is a set of procedures that lead to a certain result" (Foucault, 1994b, p. 725; the translation is mine). Likewise, if Kuhn considered that exceptionally two paradigms could coexist, Foucault thinks that many "regimes of truth" can overlap and not simply annul or cancel each other out. This becomes clear when the French author studies different political tactics, such as anatomopolitics (power exercised over the body of individuals and biopolitics (power exercised over the life of the population), which, with their respective discourses, far from canceling each other out, coexist and reinforce each other at certain historical moments (Foucault, 1978; Foucault, 2007).

Finally, we can raise an objection to Foucault's proposal: why speak of "the" truth? We will respond by saying that both Kuhn and Foucault do not start from an ahistorical criterion of truth where theory is simply contrasted with facts, but that both consider that empirical data themselves only make sense with respect to a given historical epistemological scheme, called paradigm or regime of truth. We will leave for the last section of this paper a response to the alleged relativism of truth to which this position would lead.

What would the Foucauldian concept of the regime of truth contribute to a history of science (*à la* Kuhn) and, more precisely, to the elaboration of a social epistemology?

## **TOWARDS A SOCIAL EPISTEMOLOGY OF TRUTH REGIMES. ON THE POSSIBLE COMPLEMENTARITY BETWEEN KUHN AND FOUCAULT.**

We would like to argue the complementarity between the approaches of Kuhn and Foucault, beyond their obvious parallels (for instance: discontinuity in the development of knowledge; conversion of the subjects of knowledge with the new paradigm/regime of truth; scientific truths that are not obtained from a naive confrontation with the facts but from determined discursive schemes), based on a response to possible criticisms that can be made to both and, especially, to the latter.

First issue: the problem of relativism. Not only Kuhn (Popper, 1970; Lakatos, 1980), but also Foucault (Habermas, 1990) has been accused of relativism, since, it is assumed, their respective proposals would invalidate the possibility of objective and rational knowledge. The idea of a discontinuous knowledge, without accumulation or scientific progress, in Kuhn seems to be extreme with Foucault when he uses the term truth, in the concept "regime of truth", to any discursive construction that has a certain binding value in society. In order to avoid this reading, we could reply that it is imperative to differentiate between three concepts or positions: the problem of translation between rival theories, the social relativity of descriptions and the constructivism of facts. Regarding the former, to point out that there are rival theories that have elements that are difficult to translate is not a relativistic thesis (Cupani, 1996), but, on the contrary, it describes a verifiable historical reality: in fact, there were and are scientific theories that, despite the efforts made to make them comparable, have problems of absolute compatibility (Kuhn, 1996). Likewise, this does not deny that, according to the same parameters and presuppositions of a theory, there can be progress and accumulation of knowledge. Kuhn's position, therefore, is not a thesis that applies to all possible discourses nor a statement that says that everything can be true, but it is a position that draws attention to how, in the historical development of science, there are rival theories that are hardly compatible and that, in the end, one of them prevails, either because they solve more problems and, above all, they satisfy a greater number of epistemic values (accuracy, consistency, scope, simplicity, and fruitfulness) (Kuhn, 1996; 1977) or because they

can predict a greater number of events (Lakatos, 1980). Second, as Boghossian (2007) has already shown in his critique of Rorty's relativism, a distinction must be made between the social relativity of description and factual constructivism: while the former considers that the scheme for describing the world depends on contingent interests, the latter states that there are no facts, but a succession of interpretations that have no greater or lesser degree of truth. It is important to note that affirming the former does *not imply* assuming the latter (Boghossian, 2007). Foucault's position would thus be one aligned with the *social relativity of the political descriptions* of certain disciplines of questionable scientific status (psychology, penal science, psychiatry, etc.), but not a relativism *per se* that considers that there are no facts, but only "interpretations". Precisely from the evidence that there are prisoners, incarcerated, Foucault worked as a militant and wrote texts to emphasize how the demands that loom over the penal system is far from being ahistorical and unquestionable (Eribon, 1991). In this way, the concept of truth regime, together with that of paradigm, should not be taken as relativistic apologies, but as complementary methodological resources that allow us to elucidate that the schemes adopted to describe the world and how these schemes change both cumulatively and discontinuously. They are complementary to the extent that if one (Kuhn's paradigm) emphasizes how scientific knowledge is modified, the other (Foucault's regime of truth) points out how it changes beliefs, practices and non-epistemic social values in a society.

Second issue: the introduction of irrationality into science by postulating that scientists "convert" to a new discursive scheme. For Lakatos (1980) Kuhn is irrationalist in that he does not clearly explain the cause of paradigm shifts (which he calls, *mutatis mutandis*, scientific research programs) and instead appeals to psychological motives. Along the same lines, it could be affirmed that Foucault would be even more irrationalist, given that he points out that truth is also a "truth-event" that transforms the "subjectivity" of people. Here we can give two answers. First, it is necessary to define what is rational: if by rational we understand only and exclusively that which belongs to a science and, specifically, to the predictive capacity of a scientific theory, then no statement lacking predictivity would be rational and, therefore, Lakatos' epistemological affirmations would also be irrational, since they do not predict anything new. If, on the contrary, we understand by rational, all procedures that are regulated by duly explained and argued reasons, then neither Kuhn nor Foucault are irrationalists<sup>8</sup>. Even the task of studying psychological-cognitive causes in the change of scientific theories is a fully rational task. (Brunetti y Ormart, 2010). In fact, for both of them, there are reasons for change (the famous conversion that Lakatos is so uncomfortable with), whether these are endogenous –that a theory solves a greater number of problems for Kuhn or better fulfills epistemic objective values– or exogenous –that a "regime of truth" has greater social reasons to impose itself on another; according to Foucault; something that, for example, became evident during the Covid-19 pandemic: some governments changed the "regime of economic truth", for political-sanitary reasons, going from an absolute free market to a Keynesianism where the prices of multiple commodities were controlled (Ayala-Colqui, 2020b, 2022; 2023b; Barria-Asenjo et al., 2023)–. Second, to speak of the "subjectivity" of researchers, especially in the case of the social sciences, is highly relevant, since there is evidence of the presence of biases, tendencies and influences of the researcher in the conduct of scientific research (Podsakoff, MacKenzie and Podsakoff, 2012). Kuhn certainly does not pay much attention to these external factors: he thinks that they may have some influence by restricting the

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<sup>8</sup> Even Kuhn would also belong to the same orientation, despite the differences and mutual criticisms, of Popper's critical rationalism (Hernández, Romero y Bracho 2005).

scope of the problems faced by the scientist and even biasing the scientist's approach to those problems, but theory evaluation is predominantly done on the basis of shared epistemic values. However, it is precisely at this point where the need for complementarity between Kuhn and Foucault can be appreciated, if we understand by this concept a non-contradictory, but not implicit, addition that can complete a theoretical proposal. In effect, what Kuhn neglects is successfully supplied by Foucault, insofar as the latter does add external factors, such as power relations, which have an impact on the modifications of the regimes of truth. For the rest, eluding the existence of a subject, with beliefs and valuational tendencies, can lead not only to hinder the task of an objectivity in science (Arrieta, 2018), but also to extend and reinforce practices of discrimination of other points of view, such as that of women or minorities (Harding, 1986; Fricker, 2007). As a result, far from making a self-interestedly irrationalist reading of Kuhn and Foucault, we can see that their concepts allow us to think an epistemology attentive to social and political motives, as well as to the subjective biases of the researchers.

Third issue, linked to the previous one: should science deal with political factors or would these be mere extra-scientific adjacencies without any concrete epistemic value? Just as history was once detached from epistemology, we could say that the same thing happened with politics: a science was analyzed aseptic to extra-scientific factors, such as the political interests that permeate the research. Longino in *Science as Social Knowledge* (1990) has argued that the work of obtaining scientific knowledge is not exempt from social and cultural values, hence it is necessary to reflect in terms of a “contextual empiricism”. Kitcher (2001), along the same lines, has pointed out that it is just as wrong to think that science is an arbitrary task as it is to think that science is a pure and neutral task. A good way to exemplify the presence of political factors in the development of science are the pro-smoking campaigns where American cigarette companies founded institutions and financed research to question the evidence on the correlation between smoking and lung cancer or, more contemporarily, the campaigns against the evidence of global warming where business, political and governmental interests direct some of the ecological, biological and chemical research (Oreskes and Conway, 2010). If Kuhn (1996) –and, if you will, later Lakatos (1980)– had done a remarkable job in explaining the internalist factors on the change of scientific theories, Foucault –and, with him, Longino (1990)– make it possible to complement this approach by introducing externalist factors. Without this new layer of discussion, our historical description of science would be much limited and naive; in short, much less objective. This complement can even be refined as follows: *we can use the term “regime of truth” to theorize the discontinuities that operate in the political, axiological and cultural discourses that affect science (through power relationships), while we can reserve the term “paradigm” (which would be a “regime of truth properly scientific” in the sense that it is shared by a scientific community and responds to replicable procedures based on collected evidence) to describe the rules that determine the questions and possible solutions in the discontinuous evolution of science.* Thus, we could conceptualize the way in which different political regimes, with different regimes of truth, can coexist with the same scientific paradigm or, vice versa, that several successive scientific paradigms are realized within the same political regime of truth. For example, within neoliberalism –a regime of truth according to Foucault (2008)– there is both an “evolutionary” scientific paradigm in biology and an “informational” paradigm in which multiple biological notions are interpreted in terms of information theory (Rodríguez, 2019; Ayala-Colqui, 2023b)<sup>9</sup>.

## CONCLUSIONS

In the first part of the article, we saw how Kuhn develops a historical epistemology of science that stresses the interrupted and changing character of the production of knowledge. In this path we distinguish the following moments: fragments of science prior to the constitution of a "paradigm", normal science where a paradigm shared by scientists is established, the presence of anomalies that cannot be solved within the framework of the current paradigm, scientific revolution as the irruption of a new paradigm. Science here is not an activity or testing theories against reality, but a task of solving puzzles from the coordinates of a paradigm. And since paradigms are changeable, the development of science is necessarily no-cumulative. Far from constituting a relativistic perspective, Kuhn's approach not only emphasizes the actual discontinuities that occur in the gestation of scientific theories, but also highlights that these changes are due to the fact that the new paradigm can solve puzzles in a better way than its predecessor, to the extent that it complies with shared epistemic values. However, Kuhn's explanation is limited to strictly intra-scientific factors. Therefore, it ignores political, ideological and social issues (power relationships) that may also have an impact on the building of knowledge.

Foucault, on the other hand, and as we discussed in the second part of the article, has an undertaking similar to Kuhn's: to study the discontinuities of knowledge. Consequently, he adds an extra-scientific variable: power relations. Foucault thus points out the relevance of paying attention to exogenous factors in the shaping of knowledge. One of the examples that can be given is that of penal knowledge, which was influenced by a set of political and judicial practices. Here Foucault coins a concept: "the regime of truth". This term means a set of knowledge that is historically assumed from an arbitrary constriction of power relations and that in turn conditions the way subjects act. Science would be nothing more than a regime of truth among others that influences some subjects in particular, that is, scientists.

Given this order of things, in the third section we argue to what extent both approaches are not only analogous, but above all complementary. Indeed, the Foucauldian notion of regime of truth and the Kuhnian notion of paradigm can coexist in an explanation of scientific knowledge. Foucault's concept can be used to explain the change in the various ways in which subjects construct a framework for the intelligibility of society –what was previously called "ideologies", a concept that Foucault rejects and, at the same time, modifies (Ayala-Colqui, 2023a)–, while Kuhn's concept can be used to elucidate the transformation of a special type of framework, namely scientific knowledge. And in both cases, as Longino and Kitcher will later argue, the political problems that affect the development of scientific knowledge should be considered.

In summary, from its coordinates, it is possible to think, in the case of the social sciences (where Foucault focused his theoretical efforts), of a theory of science that is attentive to its discontinuities by analyzing endogenous and exogenous factors. Just as researchers such as Friedrichs (1971), Ritzer (1981), Barnes (1982) applied the Kuhnian notion of paradigms to the social sciences, we could point out that including an epistemological and rationalist version of Foucault, in the coordinates we have exposed, would allow these perspectives to broaden and update their considerations by incorporating the question of the political dimension, as well as that of the biases and subjective factors that can affect research work in an epistemological scheme where there are not only discontinuities between incompatible

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<sup>9</sup> This is what Hacking (2002) has called "style of reasoning", which, like Kuhn's paradigms (Sciortino 2021), mutate, establishing a solution of continuity between them.



theories developed by the scientific community, but also in the regimes of truth that occur in society where this community is but a subset of it. In other words, we can risk a double reading that goes beyond mere academic exegesis and glosses. On the side of Kuhn, it is a matter of trying a reading that, in the wake of Foucault (continued in a certain way by Longino and Kitcher), goes beyond a history of science that is exclusively scientific and isolated from political and social reality. On the side of Foucault, it is a matter of trying an epistemological reading, and not merely cultural or literary, where the concept of the regime of truth has, above all, an epistemic value that serves to evaluate the discontinuities in extra-scientific knowledge and how these impacts on the knowledge that we usually call “scientific”.

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