REPRESENTATION AND IDEOLOGY OF REPRESENTATION IN MODERN EMPIRICISM

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1. In this essay we investigate the alleged foundational *crisis* faced by modern epistemology during the first half of the twentieth century;[1] in particular, we are concerned with construing an interpretation of the foundational crisis usually associated with logical empiricism.[2] Previous attempts at understanding the alleged crisis faced by modern epistemology focused either on a presumed radical or moderate 'alienation' of epistemology from its own tradition as set out by the Kantian critical project;[3] or on a disorientation of epistemology's goals which amounted to overlooking the possibilities offered by alternatives such as coherentism and holism.[4] In contrast to these interpretations, we focus on the

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[1] For the question of *crisis* cf. I.M. Bochenski, *Contemporary European Philosophy*, University of California Press 1969, J. Habermas, *Knowledge and human interests* (1968), Beacon Press 1971, Ch. Taylor, "Overcoming Epistemology", in *After Philosophy, End or Transoformation?*, K. Baynes, J. Bohman and Th. McCarthy (eds), The MIT Press 1987, (AP, thereafter), 478-490, T.S. Kuhn, *The Structure of Scientific Revolutions,* The University of Chicago Press 1962, Lyotard, J.F., *The postmodern condition*, University of Minnesota Press 1984, R. Rorty, *Philosophy and the mirror of nature*, Blackwell 1979.

[2] Concerning logical empiricism (also logical positivism or neopositivism), cf. T. Uebel, (ed.), *Rediscovering the Forgotten Vienna Circle: Austrian Studies on Neurath and the Vienna Circle*, Kluwer 1991, M. Friedman, "The Re-evaluation of Logical Positivism", *The Journal of Philosophy* 88 (1991), 505- 519, A. Coffa, *The semantic tradition from Kant to Carnap*, Cambridge UP 1992, and S. Toulmin, "From logical Analysis to Conceptual History", in P. Achinstein, S. Barker, (eds), *The Legacy of logical Positivism*, The Johns Hopkins Press 1969.

[3] Cf. Habermas 1971, Taylor 1987.

[4] Cf. L. Bonjour, *The Structure of Empirical Knowledge*, Harvard UP 1985, J. Dancy, *An Introduction to Epistemology*, Blackwell 1986, E. Sosa, *Knowledge in perspective*, Cambridge UP 1991, S. Haack, *Evidence and inquiry*, Blackwell 1993.

historical character of epistemology qua philosophical discipline: we propose the notions of *representation (Vorstellung), analytico-referentiality* and the *Analytic of Representations* as fundamental components around which the project of modern epistemology is articulated. Moreover, we speak of the *ideology of representation* and the *ideologization of representation* as powerful conceptual tools that emerge within the perspective of a historicized epistemology. We claim that these tools along with their interpretative framework can be of considerable importance in evaluating and re-evaluating the modern epistemological project and its role within the philosophical practice.

2. Ever since Frege remarked that "the question of *How we arrive at the content of a judgement* should be kept distinct from the other question, *Whence do we derive the justification for its assertion?*"[5], modern epistemology posed to itself a *foundational project* for the knowledge produced. The *foundational* project concerns the construction of 'foundations' for a sentence, a group of sentences or even for a new discipline: the sought construction is of a conceptual character and involves some kind of *justification* of the means and techniques implicated in the project. The project involves also answering a *legitimation demand*: the task now is to develop appropriate discourses (arguments, practices, strategies) which will show that the sentence, the set of sentences or the subdiscipline can be accommodated (without causing too much friction and resistance!) within a dominant discipline / practice. (In the case of a new discipline, the task becomes that of justifying this newly established practice.)

3. The project of grounding knowledge involved dealing with the following three questions: (i) there is the question of securing the epistemological discourse from logical circularities (contradictions, inconsistencies, gaps); (ii) there is, then, the question of avoiding a *regressus ad infinitum*. (iii) Finally, there is the question of seeking absolute certainty with respect to the whole edifice of knowledge.[6] These questions are expressed on the level of a *system as a whole:* knowledge is explicitly organised along systematic, logical considerations where the minimal units of meaning are sentences, texts, science as a whole: the foundational project now becomes the issue of connecting individual sentences with each other within a system, and answering the questions "What makes *this system* a system representing our knowledge?" and "How can we ground the system as a whole?".

4. The first two questions (i, ii above) came out of 'local' concerns (e.g., arithmetic, geometry, theory of relativity, etc.), and the answers given afforded us with only *relative* certainty (certainty within a particular area, a special science, etc.).[7] Logico-systematic considerations open up new ways of dealing with the above questions: we can organise our (informal) knowledge by means of logical, formal systems thereby aiming at

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[5] G. Frege, *The Foundations of Arithmetic,* (1884), Blackwell 1980, 3.

[6] A reconstruction of the above questions, expressed as insurmountable obstacle faced by modern epistemology, is often called the *Trilemma of Münchhausen* (Cf. H. Albert, *Treatise on Critical Reason*, Princeton UP 1985, 18). The historical developments referred to require explicit documentation, a task that cannot be undertaken here. Some important though references are given below in the footnotes.

[7] Cf. Frege 1980, B. Russell, *Our Knowledge of the External World*, Open Court 1914, R. Carnap, *Der logische Aufbau der Welt*, (1928), Hamburg 1961, M. Schlick, *Allgemeine Erkenntnislehre*, Berlin 1918, L. Wittgenstein, *Tractatus Logico-Philosophicus,* London 1922, K. Popper, *The Logic of Scientific Discovery* (1934), Hutchinson 1959.

systematic unity of knowledge. We are thus forced to facing the third question (seeking absolute certainty), which can be now rephrased as: Can a logical-formal system represent *all* of our knowledge? And, how is this system going to be grounded? It seemed that the only way out was to construct a universal system / language which would be able to supply *its own grounding*.[8] Meta-discursive considerations, along with usual discursive ones, did not help: despite the highly technical apparatus employed, the results, though interesting, are mostly negative – there are *no final* or *absolute warranties* to be given; the systems we can construct are faced with *intrinsic limitations*, at least with respect to the epistemological task of securing foundations for knowledge.[9]

5. This is a schematic reconceptualization of some major developments in epistemology from the end of the 19th century to the first half of the 20th century, with modern empiricism and logical empiricism, in particular, occupying centre stage. The general feeling among epistemologists and philosophers is that epistemology did not succeed in carrying out its foundational project: the task was left unfinished; epistemology thus entered into a long and continuous crisis.[10] Our concern in the rest of this paper is not to fulfil the task left unfinished but, more modestly, to understand the problems that arose: by employing subtler and more refined conceptual tools, we hope to contribute to a possible re-orientation of the dominant epistemological practice.

6. Among the influential interpretations of the above mentioned crisis we would have to include the following two.

(i) Epistemology, in its effort to deal with the foundational project, reduced itself into a mere methodology of *scientific* knowledge (theory, history and methodology of science), thereby abandoning its critical and self-examining attitude toward its own practice. Thus, the task of seeking *self-reflexively* a foundation for knowledge was left incomplete and unfinished.[11]

(ii) Modern epistemology focused almost exclusively on the question of foundations for knowledge (foundationalism): it thus disoriented itself by directing its attention on a project that had no future. Instead, an adequate answer to the questions of the foundations can be given by *coherentism*. By searching for its progenitors in the beginnings of the 20th century (Duhem, Poincaré, conventionalism), later on in Neurath, the later philosophy of Wittgenstein and the holism of Quine, coherentism can overcome the obstacles faced by foundational epistemology.[12]

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[8] This move follows after the protocol debate in the Vienna Circle in the 1930s; its results can be seen in R. Carnap, *The Logical Syntax of Language,* Kegan Paul 1937, M. Schlick, "On the Foundation of Knowledge", *Erkenntnis* 4 (1934), 79-99, O. Neurath, "Unified Science and its Encyclopedia", *Philosophy of Science* 4 (1937), 265- 277.

[9] I am referring to the incompleteness of arithmetic and similar metalogical restrictive results. Cf. J. van Heijenoort, *From Frege to Goedel: A Sourcebook in Mathematical Logic*, Harvard UP 1967, S.G. Shanker, *Goedel's Theorem in focus*, Croom Helm 1988, S. Rosen, *The limits of analysis*, Yale UP 1980, H. Wang, *Beyond Analytic Philosophy*, The MIT Press 1988.

[10] This feeling is enhanced by writings such as L.Wittgenstein, *Philosophical Investigations,* Routledge 1953, Kuhn 1962, P. Feyerabend, *Against Method: Outline of an Anarchist Theory of Knowledge*, University of Minnesota Press 1970, W.V. Quine, "Two Dogmas of Empiricism" (1951) in *From a logical point of view*, Harvard UP 1953, Toulmin 1969, 1976.

[11] Cf. Habermas 1971, Taylor 1987.

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7. Both approaches, in so far as they offer an understanding of the calamities of modern epistemology, are not very promising (each one for different reasons): the first one, motivated by *external* concerns, blames epistemology for not being up to the standard formulated by the transcendental critique of knowledge. With respect to this standard, modern epistemology, being unable to be sufficiently self-reflexive, is found lacking. However, this critique of modern epistemology, even if justified from the perspective given by its supporters, does not originate from an examination of the *internal affairs* taking place within epistemology itself: *a critique of modern epistemology must originate from an understanding of its own internal dialectic as exemplified in modern empiricism and manifested especially clearly in logical empiricism*. Philosophy of science, in particular, being just a fragment of epistemology, must be criticised along criteria formulated *within* epistemological practice. The second approach, despite the interesting efforts of coherentists to overcome the obstacles faced by foundationalism, is not of much help either: the foundational project that developed by the logical empiricists involves also a coherentist project; in addition to that, the notion of *justification*, as a general social strategy underlying the epistemological project, remains a formidable problem in itself.[13]

8. We have briefly looked at two interpretations of the epistemological crisis, and we have come to the realisation that in order to understand the crisis we would have to look elsewhere: for a deeper understanding of the issues involved we could turn our attention to some basic categories that permeate the whole project of epistemology since post-renaissance times. Among these we would include *representation,* the *Analytic of Representations* and *analytico-referentiality*. In what follows, we will argue that the aforementioned crisis can be understood as *crisis of the dominant epistemological pattern of analytico-referentiality* and it can be expressed as *ideology of representation*.

9. It is widely assumed that in post-renaissance epistemological projects *representation* plays a very central role.[14] There are two fundamental components of representing: *referentiality* and *analyticity*. By means of the referential component, the observer (Galileo) is capable of perceiving and thus conceiving the objects, the world (the remote stars). By means of the analytic component of represent-ing, the subject obtains knowledge by transforming, synthesising / analysing and manipulating represent-ations.

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[12] Cf. Bonjour 1985, Dancy 1986, Sosa 1991, Haack 1993.

[13] This problem is quite evident in Quine's attempt to cope with the dogmas of empiricism and with Carnap's ideas about founding knowledge. Cf. Quine 1953, and Carnap's reactions to Quine's views in P.A. Schilpp (ed.), *The philosophy of Rudolf Carnap,* Open Court 1963. Cf. also footnote 4.

[14] Cf. Galileo Galilei, *Sidereus Nuncius*, (1610), The University of Chicago Press 1989, John Locke, *An Essay Concerning Human Understanding*, (1690), Oxford UP 1969, I. Newton, *Optiks*, (1704), Dover 1958, A. Arnauld, P. Nicole, *Logic or the Art of Thinking*, (1662), Cambridge UP 1996, R. Descartes, *Rules for the Direction of the Mind*, (1701), Cambridge UP 1985-91. For the overall development of modern science and the history of ideas in modern thought, F.L. Baumer, *Modern European Thought. Continuity and Change in Ideas, 1600-1950,* Collier Macmillan 1977, E.A. Burtt, *The metaphysical foundations of modern physical science* (1924), Routledge 1972, E. J. Dijksterhuis, *The mechanization of the world picture* (1950), Princeton UP 1986, A. Koyre, "Galileo and the scientific revolution of the seventeenth century", *Phil. Review*, (1943), 333-348, S. Drake, Galileo, Oxford UP 1980, A. Ayers, *Locke, Volume I: Epistemology*, Routledge 1991. T. Reiss, *The Discourse of Modernism*, Cornell UP 1982, M. Foucault, *The Order of Things,* Sage 1973.

There is formed, thus, a discourse involving represent-ation, represent-ing and represent-ed (that may be called the *Analytic of Representations*). We may view modern epistemo-logy as an analytico-referential epistemology, as an epistemology that centers on the various aspects of representation and the Analytic of Representations.[15]

10. There is little doubt that representation and the Analytic of Representations contribute to the constitution of the particular character that modern thought and epistemological practice in particular acquire. Within this practice (viewed as social practice) one may legitimately speak of *ideology*; in particular, we can speak of the *ideology of representation* as a state of affairs within the field of social practice that issues from the involvement of the Analytic of Representations in epistemology. The ideology of representation is generally linked with partial, incomplete or non-exact understanding or analysis of reality, or with argumentation procedures that end up distorting or concealing truth, etc.. Indeed, ideology is often conceived as "any system of ideas produced as the effect of a situation doomed from the start to misunderstand its real connection to reality."[16]

11. We can formulate now a first notion of the ideology of representation: we mean the situation arising in epistemological practice by virtue of the concrete contribution of the representation in the formation (establishment, development) of the dominant ideology. Although as already noted, all forms of social practice mobilise forms of representation and these, in turn, are mobilised further within the frame of the dominant ideology, the ideology of representation as a conceptual tool is too general to be of real help for our task. On the one hand, the ideology of representation is usually and normally associated with procedures of partial understanding, incomplete argumentation or distorted representation of reality; thus, speaking of the ideology of representation will facilitate the task of conceiving the incomplete, unfinished, partial character that the Analytic of Representations attributes to reality. On the other hand, the epistemological practice that developed around the turn of the century was not marred with these 'negative' features: indeed, Frege, Russell and others contributed considerably toward the dissolution of logical bugs (inconsistencies, contradictions and circularities), the rigourisation of arguments and the clarification of the discourse of representations. In a word, one could claim that they contributed toward an Analytic of Representations

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[15] We do not claim that the epistemological projects that developed in post-renaissance times were analytico-referential; what we are trying to point out is the common substratum that lies underneath them all. Indeed, this common substratum can be found not only in epistemology but also in such diverse activities as art, communication, science, education, etc.. (Cf. B. Latour, "Visualization and cognition: thinking with eyes and hands", in *Knowledge and Society: Studies in the Sociology of Culture Past and Present,* vol. 6 (1986), 1-40.) At this point we should draw attention to the linguistic dimension of the analytico-referential epistemology. The need to utilize language or to call words to our aid is quite clear ever since Locke and the Port Royal logicians: language is to be thought of as telescope, a mechanism that mediates between sign and signified, concept and object.

[16] G. Canguilhem's wording in G. Gutting, *Michel Foucault's archaeology of scientific reason*, Cambridge UP 1989, 43. For the topic of ideology cf. U. Eco, *A Theory of Semiotics*, The Indiana University Press 1979, 428, 446, 457, F. Rossi-Landi, *Ideologia* (1982), translated into english as *Marxism and Ideology,* Clarendon Press, Oxford UP 1990, J.B. Thompson, *Studies in the Theory of Ideology*, Polity Press 1984 and M. Foucault, *The Archaeology of Knowledge* (1969), Sage 1972, and "Questions of method" (1977) in AP, 108-109.

without ideological distortions.

    12. Hence, this first notion of the ideology of representation needs to be supplemented; one ought to speak of the *ideologization* of representation as procedure taking place *within* the Analytic of Representations (involving all three aspects of representation / -ing / -ed). Within the Analytic of Representations various epistemological practices may develop – some of them may cause distortions; others may issue in statements that are valid, true, or invalid, false, etc.. The specific character of these practices is not our concern at this stage; what is our concern here is the *general type* of concepts formed, of sentences enunciated, of strategies of signification developed within the Analytic of Representations: these are the tools of the ideology of representation and the kind of the *ideologized representation* that we should focus on. Thus, the ideology of representation does not consist simply in attributing correct or incorrect truth values to statements, in distorting reality or in validating the argumentation techniques; it really consists in developing strategies by virtue of which we associate generally sentences to truth values, or strategies by means of which we form concepts or formulate sentences with claim to validity. We are now interested in *modalities of signification* as strategies that establish, support and further propagate the dominant epistemological practice.[17]

    13. Among the theoretical possibilities of ideologization in the epistemological practice of representation we should mention the following type. It may occur in adopting an ontological stance toward the components of represent-ing / -ation / -ed: the representing mechanism (telescope, theory, formal system, text, language, etc.) represents the underlying reality by assigning a certain autonomy (for ontological or methodological reasons) to the represent-ed world: this procedure, whereby knowledge is legitimated via the ontological determinateness of the Analytic of Representations, is a case of ideologization. Of course, in the present case of ideologization, the discursive formation that allows the emergence and establishment of the specific ontological stance toward the components of representation may be tacitly presupposed, or assumed as 'given'.[18]

    14. But the above mentioned type of ideologization can be reduced to a more general and more important type. Ideologization now may take the form of establishing and supporting *asymmetrical meaning relations* between the components of representation – independently of the above mentioned ontological stance.[19] We should not forget that the Analytic of Representations is an epistemological field of mobilised socio-cognitive and signifying practices; within this field, the role of language becomes important: language is *the vehicle* by means of which various strategies are implemented in order to establish and further propagate unequal, asymmetrical meaning relations between represent-ing / -ation / -ed. The emphasis now should be placed on the

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[17] Cf. Foucault 1972.

[18] Cf. Russell's 'ideal' language in his philosophy of logical constructionism (*Lectures on the Philosophy of Logical Atomism*, Mind 1918-9) and Wittgenstein's conception of (an ideal) language as picturing somehow the world (in the *Tractatus*). These ideas are implicit, if not explicit, in Frege (and in Leibniz), and are integral elements of the conception of modern epistemology as an analytico-referential epistemology.

[19] Thompson 1984, 4, 5, S. Woolgar, "The ideology of representation and the role of the agent" in *Dismantling Truth*, H. Lawson, L. Appignanesi (eds), Weidenfeld and Nicolson 1989, 131-142 and Woolgar 1988.

represent-ing mechanism, as this is pregnant with power to mobilise the subject to form representations. However, within the Analytic of Representations, all the components involved are utilised in order to accomplish the targets of the analytico-referential project. More specifically, there are established among the components of representation *dominating* and *hierarchized* meaning relations since what is sought is the grounding of *one* of the components by means of the *other*. Thus, what seemed at first as a transparent, immediate correlation between represent-ation, represent-ing and represent-ed is now transformed into a right of, and practice of, *domination* among the components of the representation.

15. Now, to witness such phenomena of ideologization we would have to retort to the epistemological practice of the 20th century. The domination of represent-ation over the represent-ed and the represent-ing takes the form of ontological priority: recognising the autonomy of the ontological realm of the representations produced, it is hoped, will help us with effectively treating both the problem of the logical contradictions and inconsistencies in the logical discourse and the problem of a *regressus ad infinitum* faced by the epistemological project. Wittgenstein (in the *Tractatus*) held a version of ontological atomism – thereby showing preference for the ontological determinateness of the represented world. Ontological atomism along with a general theory of representation (as the one exhibited in the *Tractatus*) make up the basic tenets of the early Wittgenstein's picture of philosophy (and epistemology): (ideal) universal language, in so far as it is capable of picturing the world, is a represent-ing mechanism that establishes and sustains unequal, asymmetrical ontological relations – relations that have tremendous implications for the epistemological project (as the later philosophy of Wittgenstein so well shows).[20] The epistemological project of the twentieth century, as already claimed, was led to an impasse, which now we associate to the ideologization noted in the representational practice of the period under discussion. This ideologization is not due simply to the intervention of representation: rather, it is due to the hierarchized, one-way relations running through the represent-ation, the represent-ing, and the represent-ed on the discourse of the Analytic of Representations.

16. The development of logical empiricism is the most interesting case of ideologization. During the prime time of logical empiricism the ideologization of the Analytic of Representations is quite evident: what is sought is absolute certainty of the knowledge produced; and the means to secure such high demands are to come from the active role attributed to logical considerations and formalization of the informal, intuitive epistemological practice.[21] Subtle distinctions on language frames, and questions recognised as belonging to and characterising the corresponding frames (internal - external questions)

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[20] The philosophy of *Tractatus* may not show epistemological concerns; the above remarks prove extremely relevant to the manner in which the *Tractatus* was received by the Vienna Circle.

[21] This demand was not possible within the *Tractatus* framework, due to Wittgenstein's insistence that "What *can* be shown, *cannot* be said" (*Tractatus* 4.1212, and similarly 4.121). But, this all changed thanks to Goedel's work; and Carnap showed in his *Logical Syntax of Language* how this can accomplished. This is the insight behind the demand for unified knowledge and the carrying out of the demand for absolute certainty of knowledge with means that the system itself (i.e., the system that expresses our knowledge) is going to supply.

are expected to help in dealing with the foundational problem. In particular, linguistic conventionalism and the *Principle of Tolerance* force on us, in principle, distancing ourselves from taking sides on particular language systems or frames.[22] Pragmatic considerations and non-philosophical commitments are supposed to help us also in facilitating our decisions to choose among competing systems. Carnap claims that the philosopher qua semanticist should only concern himself with the internal questions, with questions that reflect the organisational level of a system. Getting rid of the external questions we rid ourselves of extra ontological baggage – we implement thus a de-ideologization of the Analytic of Representations. However, while enmeshed in semantic and meaning-theoretic considerations, we cut ourselves off the world, the 'non-semantic' world.[23]

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17. Indeed, what is constantly missing from Carnap's analysis, despite its technical ingenuity, is the establishment of a bridge between the severed parts of the world (representations – represented – representing): earlier on, the represented world passed through the dark tube of the telescope; now, it seems, it cannot cross the boundary – the glass is too thick to trespass. And the relations among the components are not just 'given', 'evident' or what have you; instead, they are hierarchized, asymmetrical relations proceeding from one direction to the other; and, as such, they *invoke* particular ways of dealing with and answering the problems of justification of knowledge. This is why we called this phenomenon also an ideologization of representation. It comes, then, as no surprise to us that on the level of ideologization, the historical, social and constructive character of knowledge (and, thus, of epistemology itself) is for ever expelled from the rerpesentational discourse: what seemed at first a simply methodological demand for the constitution of modern knowledge and of epistemology as philosophical discipline (separation of the frameworks) becomes now an absolute, 'natural' regime, a regime that finally lies over and above the socio-historical conditions that produce it.

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[22] *"It is not our business to set up prohibitions, but to arrive at conventions...*

In Logic there are no morals. Everyone is at liberty to build up his own logic, i.e. his own form of language, as he wishes. All that is required of him is that, if he wishes to discuss it, he must state his methods clearly, and give syntactical rules instead of philosophical arguments." (Carnap 1937, 51-2).

[23] R. Carnap, "Empiricism, Semantics, and Ontology" (1950), and "Meaning and synonymy in natural languages" (1955) in *Leaning and Necessity*, University of Chicago Press 1956, and Schilpp 1963.