Revista de Estudios Globales Universitarios
Metrópolis
Vol6 2025 Num 2
ISSN 2692-319X | E-ISSN 2692-3203
Journal Julio - Diciembre 2025

Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three

Karl Popper y la Evolución de la Epistemología Objetivista: Un Viaje desde el Realismo Crítico hasta la Teoría del Mundo Tres

Miguel Albujas Dorta.[1]
malbujas@unimet.edu.ve
Universidad Metropolitan (UNIMET)
Caracas, Venezuela.

Recepción: 29-06-2025 **Aceptación: 29-07-2025** **Publicación: 20-12-2025**

Como citar este articulo: Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three.** Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

[1] *Licenciado en Filosofía (UCV), Magíster Scientiarum en Filosofía y Ciencias Humanas (UCV), Magíster Scientiarum en Comunicación Social (UCV), Magister en Ciencia Política y de Gobierno (UNIMET) y Doctor en Ciencias Sociales (UCV). Director de Investigación y Desarrollo de la Universidad Metropolitana. Miembro Honorario del Centro de Investigación "Metrópolis".*

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

Abstract

The text examines the complex relationship between science and metaphysics from the epistemological conception of Karl Popper. Within this framework, the question of the demarcation criterion is addressed, taking Popper's work as a key reference to understand such an issue. His proposal of falsifiability as a distinguishing criterion between science and metaphysics does not seek to exclude the latter, but to recognize its relevance in the process of knowledge construction. This paper analyzes the evolution of Popperian thought, differentiating its initial methodological stage from its later epistemological development, where he introduces the famous theory of "World 3". This theory, influenced by Darwinism, proposes an evolutionary conception of knowledge. Popper distinguishes between World One, which is the physical world, World Two, represented by the sphere of mental states, and World Three, which refers to the realm of objective products of human thought, such as theories, institutions, and artworks. Even though the human mind generates World Three, it acquires a relative autonomy, exercising an unpredictable influence on humanity. From a biological-evolutionary perspective, Popper emphasizes this independence and its role in knowledge development. Among the objects of World Three are books, theories, and concepts, which can materialize in World One or exist subjectively in World Two, either as memories or thoughts. According to Popper, knowledge progresses by trial and error, in a process analogous to biological evolution. However, this autonomy of World Three raises questions about the control that human beings can exercise over their creations. Likewise, criticisms have been made of its epistemological conception's internal coherence and verifiability, which several authors consider closer to metaphysical than scientific discourse. Despite this, Popper's proposal retains a remarkable validity by offering a fruitful framework for reflecting on knowledge's dynamic and problematic development.
Keywords: Science, metaphysics, epistemology, World 3, quality education.

Resumen

El texto examina la relación compleja entre la ciencia y la metafísica desde la concepción epistemológica de Karl Popper. Dentro de este marco, se aborda la cuestión del criterio de demarcación, tomando la obra de Popper como referencia clave para entender dicha problemática. Su propuesta de falsabilidad como criterio de diferenciación entre la ciencia y la metafísica no busca excluir esta última, sino reconocer su relevancia en el proceso de construcción del conocimiento.Este trabajo analiza la evolución del pensamiento popperiano, diferenciando su etapa metodológica inicial de su posterior desarrollo epistemológico, donde introduce la famosa teoría del "Mundo 3". Esta teoría, influenciada por el darwinismo, plantea una concepción evolutiva del conocimiento. Popper distingue entre el Mundo Uno, que es el mundo físico, el Mundo Dos, representado por la esfera de los estados mentales, y el Mundo Tres, que se refiere al ámbito de los productos objetivos del pensamiento humano, como teorías, instituciones y obras de arte. Aunque la mente humana genera el Mundo Tres, este adquiere una autonomía relativa, ejerciendo una influencia impredecible sobre la humanidad. Desde una perspectiva biológico-evolutiva, Popper enfatiza esta independencia y su papel en el desarrollo del conocimiento. Entre los objetos del Mundo Tres se encuentran libros, teorías y conceptos, que pueden materializarse en el Mundo Uno o existir subjetivamente en el Mundo Dos, ya sea como recuerdos o pensamientos. Según Popper, el conocimiento avanza por ensayo y error, en un proceso análogo a la evolución biológica. Sin embargo, esta autonomía del Mundo Tres plantea interrogantes sobre el control que los seres humanos pueden ejercer sobre sus creaciones. Asimismo, se han realizado críticas a la coherencia interna y verificabilidad de su concepción epistemológica, que varios autores consideran más cercana a lo metafísico que a lo científico. A pesar de ello, la propuesta de Popper mantiene una validez notable al ofrecer un marco fructífero para reflexionar sobre el desarrollo dinámico y problemático del conocimiento. **Palabras clave:** Ciencia, metafísica, epistemología, Mundo 3, educación de calidad.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

Introduction

From the perspective of the philosophy of science and gnoseology, the relationship between science and metaphysics constitutes one of the most intricate and persistent problems in the task of defining or constructing theoretical models that attempt to offer a systematic explanation of reality. This difficulty has been recognized since the first developments of the Vienna Circle, whose representatives, within the framework of the so-called "inherited conception" or logical positivism, devoted themselves to the search for demarcation criteria that would make it possible to draw a clear boundary between scientific knowledge and metaphysical statements. Indeed, this search became one of the central axes of analytical thought during the first half of the twentieth century, especially under the imprint of logical empiricism.

However, beyond these attempts to exclude metaphysics from scientific discourse, the fact is that the tension between the two spheres has accompanied the history of thought since its origins in Greek philosophy. This tension intensified notably from the 17th century onwards, when the accelerated development of the physical-natural sciences imposed new standards of objectivity and a new framework of explanation. Added to this, in the following centuries, was the emergence of a series of discourses on the human and the social which, aspiring to scientific status, sought to emulate the model of the nomothetic sciences, that is, those sciences oriented towards the formulation of universal laws, emphasizing the paradigm of scientific rationality and epistemic validity. In such a context, the question of the relationship between science and metaphysics not only persists but also becomes even more complex, since it implies an

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

epistemological reflection and a critical review of the ontological and methodological foundations underlying the various forms of knowledge.

In other words, the relationship between science and metaphysics inevitably becomes more complex when the well-known and developed history of the physical-natural sciences is presented in the nineteenth century with a new field of explanation: the so-called social sciences. To illustrate this point, we could cite the case of Auguste Comte, who is emblematic of the aforementioned demarcation in the field of the social sciences. Although Comte's positivism privileges the scientific or positive stage over the metaphysical (abstract) or theological (fictitious), this simply translates into a request for principles that attempt to solve the relationship between science and metaphysics, which is invalidated once Comte intends to do social physics or, rather, sociology. This term and the theoretical corpus that integrates it are the best expression of how the development of the physical-natural sciences influenced the human sciences, and, at the same time, they also express the limitation of the latter to elaborate a discursivity of their own in the field of science. In this respect, Leszek Kolakowski points out:

> *"The awkward linguistic hybrid that is the word <sociology> comes from Comte. This circumstance certainly reinforces the commonplace according to which, if the textbooks are to be believed, the science of sociology also owes its origin to Comte. Without entering into a polemic on the subject, let us recall that Comte himself claims to be the Galileo of the social sciences"*[2].

[2] Kolakowski, Leszek, ***La Filosofía Positivista***, Cátedra, Colección Teorema, Madrid, 1988, Page 81.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

Precisely, with Auguste Comte as the "Galileo of the social sciences," this contradiction is clearly expressed. On the one hand, it demands and recreates the space for orthodox positivist solutions; on the other hand, it also promotes and generates a space that allows the presence of scientific discourse on the social, making the relationship between science and metaphysics more complex.

However, what makes this relationship even more complex is that from the 19th century onwards, with the development of the so-called social sciences, the science-metaphysics relationship acquires a characteristic feature that becomes a fundamental theme in the discussion of the philosophical-scientific reflections of the first half of our century, namely: finding the epistemological foundations of scientific knowledge and elaborating the demarcation criteria between the limits of the science-metaphysics relationship.

However, what makes this relationship even more complex is that from the 19th century onwards, with the development of the so-called social sciences, the science-metaphysics relationship acquires a characteristic feature that becomes a fundamental theme in the discussion of the philosophical-scientific reflections of the first half of our century, namely: finding the epistemological foundations of scientific knowledge and elaborating the demarcation criteria between the limits of the science-metaphysics relationship[3].

[3] Popper called the problem of demarcation "Kant's problem", in order to recognize that it was the philosopher from Königsberg who was the first to raise the issue in question. However, beyond this recognition, it is in the last century that the issue became a fundamental aspect of philosophical development.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

The project of unification of science, the incorporation of the physicalist language, the empirical criterion of meaning, verification, and induction (among other aspects), became elements of analysis that attempted to establish criteria (some of which were valid and others invalid) to demarcate what is science and what is not. This relationship is fundamental to understanding the epistemological foundation of scientific knowledge.

Indeed, one of the best examples we could point to following this approach is the Viennese philosopher Karl Popper. This author is interested in the subject from his first reflections and raises a series of aspects aimed at establishing the methodological criteria to distinguish the border of the relationship between science and metaphysics and, therefore, to elaborate the requirements that allow him to establish the aforementioned demarcation (Abgren-zungskriterium), based on falsifiability and not on naturalism, as traditional positivism did. Once the methodological proposal is defined in his text: The Logic of Scientific Discovery, (by the way, some authors call the positions assumed by the philosopher at this stage as: “the first Popper” or “the methodologist Popper”), the author proceeds to build in his later works an epistemology that supports his previous construction. Thus, according to his point of view, the so-called “second Popper” appears, who will clearly distinguish the two existing epistemological positions: an irrelevant subjectivist epistemology and his objectivist epistemological proposal. This objectivist epistemology must study and investigate World Three (M3) and provide information on worlds Two (M2) and One (M1). Now, in his epistemological propositions, Popper needs to assume pluralist positions at the ontological level as a consequence derived from the construction of World Three and, in doing so, he generates

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

"conflict" with the methodological propositions that our author had offered us in The Logic of Scientific Discovery[4].

This epistemological position assumed by Popper has been qualified as evolutionary epistemology, insofar as he affirms that the development of knowledge in general depends on and resembles the biological evolution of living species. Thus, Popper subjects epistemology to an evolutionary conception and derives the need to construct a "World Three" to support his justification. This position undoubtedly represents a break in the epistemological interpretation of our century.

In the present work, we will specify what Popper understands by epistemology. We will define each of the spheres proper to the worlds indicated, to derive, in the conclusion that we consider necessary, finally, namely: there is no insurmountable rupture between the Popper methodologist and the epistemologist, but, on the contrary, a relationship of complementarity. In the following pages, we will specify what the author understands by epistemology and define each of the spheres proper to the worlds indicated; for the moment, we simply wish to point out on what argumentative bases the author places his epistemological conception.

Evolutionary or Neo-Darwinian Epistemology

Indeed, in the history of philosophy, there has been a constant need to find explanations about the human being's internal and/or external realities. From the pre-Socratics to some of the most select contemporary thinkers have placed their faith in philosophical stones constituted by elements or

[4] Popper, Karl. ***La Lógica de la Investigación Científica***. Editorial Tecnos. Madrid, 1.980

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

areas of knowledge that pretend to solve and/or explain problems of diverse nature. These reductionist or monocausal positions have become a path permanently followed in the history of universal thought.

Water, fire, air, *apeiron*, reason, *empirea*, objective spirit, ideology, mathematics, physics, language, logic; are —among others— the constituent elements of a long list that make up theories and systems that serve as instruments of: intellection, creation, ordering, etc., of the external and internal world of man.

From this perspective, biology, especially after the development of evolutionary theories, joins this long list already mentioned. It is curious that biology, starting with Darwin, generates explanatory discourses that influence diverse areas of scientific knowledge. In the case of Spencer, sociology and epistemology in Popper's work are two clear examples of the influence of biology in general and evolutionary theory in particular on other sciences. This is so much so in the case of Popper, who, in his second stage, maintains an extreme reductionist position concerning evolutionary biology.

The epistemological position assumed by Popper has been qualified as neo-Darwinian[5], since our author maintains that epistemology evolves just as living organisms do, and he affirms that the development of knowledge in general depends on biological evolution on the part of living beings. Thus, Popper reduces epistemology to a kind of evolutionary conception.

[5] Sánchez, Benjamín. ***La Inutilidad del Tercer Mundo***. Universidad Central de Venezuela. Faculty of Humanities and Education. Instituto de Filosofía. Caracas, 1983. See Foreword and Introduction, especially Page 12 quote 6.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

For this reason Schilpp qualifies this Popperian tendency as an "evolutionary epistemology", since in the works carried out by the "second Popper", our author offers us a series of explanations in which abound, not only a language loaded with a strong evolutionary influence, but he also indicates a series of examples taken from the field of evolutionary biology to explain what he understands by epistemology.

To this situation, we must add two significant elements: first, in the subtitle of *Objective Knowledge*[6], Popper indicates the path he will follow, namely: "An Evolutionary Approach". Second, the author establishes a close working relationship with John Eccles, a neurobiologist who shares with our author his dualist and interactionist positions, and has provided him with recommendations for the construction of his famous "World Three".

This evolutionary epistemology needs to construct a "World Three" [7] to strengthen its justification and represents a break in the epistemological interpretation of our century. It is curious that Popper radically confronts the epistemologists of his time by dividing the interpreters and scholars of epistemology into two large groups. On the one hand, he, on the other hand, the others. However, curiosity does not end with this fact. However, our author resorts to at least three of his most distant and criticized thinkers and their respective theoretical-philosophical constructions for his third world construction. We refer to Darwin and his evolutionary

[6] Popper, Karl. ***Conocimiento Objetivo***. Tecnos Editorial. Madrid, 1.980.

[7] In the following pages we will present Popper's description of worlds 1, 2 and 3.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

conception, to Plato and his *Theory of Forms*, and to Hegel and his construction of the *Objective Spirit*[8].

In his epistemological propositions, Popper needs to assume pluralist positions at the ontological level as a consequence of the construction of World Three and, in doing so, he generates a "confrontation" with the methodological propositions that our author had offered us in *The Logic of Scientific Discovery* [9]:

> *"For the methodologist Popper in The Logic of Scientific Discovery, the task of the philosopher was to compare the theoretical and empirical contents of rival theories for the purpose of estimating the 'plausibility' of them, whereas for the epistemologist Popper in Objective Knowledge the function of the philosopher is none other than to examine every range of the cognitive structures of the animal kingdom and to compare the adaptation of the organic system to the surrounding environment* [10]."

In this first approach to Popper, we can understand this transition from two different points of view: a) either our author, after a long philosophical-scientific journey, needs to resort to totally metaphysical theories (even if they are good metaphysics to use a term of Bertrand Russell) to consolidate his initial positions; b) or, the path followed by science in its continuous progress responds to the need to interact with "good metaphysics" to

[8] For a clearer view of Popper's critical views on Plato and Hegel we recommend his books: "***La Sociedad Abierta y sus Enemigos***" and "***La Miseria del Historicismo***". While for the author's opinion on evolutionism we recommend: Sánchez, Benjamín. *Op. Cit*. Page 20 and ss, especially quotations.

[9] Popper. ***La Lógica de la Investigación Científica***. *Op. Cit*.

[10] Sánchez, B. *Op. Cit*. Page 21.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

develop, since, from another point of view, it would be impossible for it to be constituted as a science without having passed generically through metaphysical speculation or being based on it. In other words, the path of scientific knowledge to progress requires a strong dose of metaphysical speculation from which it will never be able to free itself under any condition, although some philosophical positions (among others, the physicalist positions) cannot and will not accept it. This second proposition is the path that, in our opinion, Popper follows:

> *"I agree that the main task of science is to further our understanding. But I also think that complete understanding, just like complete knowledge, is unlikely ever to be achieved. Moreover, understanding can be deceptive (...)."*[11]

Indeed, our author assumes an interactionist position in relation not only to the mind-body problem, but also accepts an interactionist position (as a consequence of this) at the level of the science-metaphysics relation. For this reason, the contradiction between the Popperian methodologist and the Popperian epistemologist seems necessary in Popperian philosophy.

Indeed, it must be recognized that although there is a contradiction between Popper the methodologist and Popper the epistemologist, since he presents different approaches to areas of scientific knowledge, there is no such contradiction concerning the point of what the author expects,

[11] Popper, K. Eccles, J. ***El Yo y su Cerebro***. Editorial Labor, S.A. Barcelona. 1.980. Page 42. Popper's contribution with his fragmentary engineering, although we consider it criticizable in its epistemological and gnoseological aspects, we recognize that it is a position constantly assumed by the author.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

demands or asks of science, since in *The Logic of Scientific Discovery*, referring to conventionalism, he tells us the following:

> "*I regard conventionalism as a system which is self-contained and defensible. Attempts to detect inconsistencies in it are not likely to succeed. Yet in spite of all this I find it quite unacceptable. Underlying it is an idea of science, of its aims and purposes, which is entirely different from mine. Whilst I do not demand any final certainty from science (and consequently do not get it), the conventionalist seeks in science 'a system of knowledge based upon ultimate grounds'.*" [12]

Popper will criticize any attempt to find "ultimate reasons" that provide explanations of reality since, paraphrasing the author, theories are nets that we throw at will to partially capture certain aspects of reality, which we will only partially know. Popper criticizes positivist reductionism, which pretends to establish an isomorphic relationship between empirics and reality.

What we must accept is that, in *The Logic of Scientific Discovery*, our author. However, he recognizes that metaphysical ideas could have favored scientific progress, and makes a special effort to demarcate what is science and what is not. While in *Objective Knowledge*, he points out not only the significant autonomy of "World Three", but also that the epistemologist

[12] Popper, K. ***La Lógica de la Investigación Científica***. *Op. Cit*. Page 77, 250 y ss. And especially page 257 et seq. Also in: ***El Yo y su Cerebro***, *Op. Cit*. Page 42, repeats this argument. We consider that "*el cambio de perspectiva epistemológica en Popper*" is a necessary change, since we see in the construction of World Three a consequence of Popperian philosophy itself.. In Sánchez, B. *Op. Cit* : Page 19, quote n.° 14, the author speaks about "a change of perspective", we appreciate a consequence that has an incipient form in his previous texts.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

must study the objectivity of "World Three" to be able to understand "World Two" and also "World One".

Of course, it is necessary to point out the existence of some previous elements that could indicate the path that the author finally follows. In the preface to the English edition (1958) of *The Logic of Scientific Discovery*, Popper does not have in mind his "World Three", since its construction is quite later and, nevertheless, when he sets position in front of the language analysts or philosophers with whom Popper argues (by the way thinkers who consider that every philosophical problem is nothing but a problem of language), our author points out that: "the only method of philosophy" and also that of the physical-natural sciences, consists in what he will later call the most important inhabitant of their third worldly construction. We refer to "critical rational discussion" or "critical arguments", as he defined them in some of his later works.

In this brief exposition, we see a certain continuity between the methodologist Popper and the epistemologist, despite having different sources for the construction of his discourse. This continuity indicates at a high level the direction that Popper's proposal will subsequently take.

Epistemology, Its Object of Study and World Three

What is Popper's understanding of epistemology, and what is its relation to ontology? And, if there is any relation, is the construction of World Three necessary? We consider that the bridge that links epistemology with ontology, in Popper's case, is World Three. Let us see, in *Objective Knowledge*, the author points out that he understands the so-called

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

traditional epistemology as a theory of knowledge[13] and, through three theses, he intends to specify what epistemology is. Its object of study is to distance himself from the traditional positions that he is criticizing.

In the first thesis, Popper exposes that traditional epistemology has been satisfied with studying the "I know or I think", and this he considers an error, since the "I know" belongs to the subject and, therefore, to World Two. Still, it will never belong to scientific knowledge, since: "*Scientific knowledge belongs to the third world, to the world of objective theories, objective problems, and objective arguments.*" [14]

With this, the author intends to establish two different senses of what he calls thought or knowledge. The first sense obeys a mental state, a state of consciousness that obeys the field of psychology and, therefore, World Two. In contrast, in the second sense, knowledge responds to an objective state independent of the cognizing subject. This type of knowledge is precisely that which epistemology must take care of studying, i.e., the elements proper to World Three. In this first thesis, Popper criticizes traditional epistemology, since the latter has deviated its study towards World Two, believing that scientific knowledge was to be found there. This, according to Popper, is false.

In the second thesis, our author points out that arguments, scientific conjectures, journals, books, problems, hypotheses, etc., are the real relevant facts that must be studied by epistemology. Still, their fundamental characteristic is that they are objective. What is pertinent,

[13] Popper. ***Conocimiento Objetivo***. *Op. Cit.* Page 108.

[14] *Ibidem.*

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

then, is the objectivist epistemology composed of the elements above that constitute World Three, which are characterized by a high degree of autonomy.

The third thesis indicates that the only way to understand this subjective world, or World Two, is through the study of objectivist epistemology or the study of World Three, but, from this point of view, it can never be claimed that through the subjective world (World Two) we can understand and/or explain the objective world (World Three).

Apart from these three theses, which Popper defines as fundamental, the author complements them with three supporting theses. These theses consist of the following: 1) World Three is characterized as a "natural product of the human animal, comparable to a spider's web." 2) World Three has a high degree of autonomy, independently of the fact that it is a product of us and that it has repercussions on World One and on World Two. According to Popper, this "is an almost crucial thesis". 3) The last thesis proposes that knowledge grows in a "close analogy" with respect to biological growth, or, in other words, epistemology and biology are closely and intimately related in terms of the evolution of both. In this sense, we find interaction between man and World Three as the growth of knowledge is accompanied by biological growth and evolution. We could say, then, that biological structures allow the growth of knowledge. Thus, it is through all these propositions that we can understand why Popper has a "crucial need" to create his World Three in order to define, at the epistemological level, what is to be studied. From the Popperian point of view, not only does his world-three construction not seem useless to us, but it gives us the impression that it is absolutely necessary to justify his

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

thesis. We affirm that without the construction of World Three, Popper's epistemology would have no sense or, rather, no logical coherence within its own internal structure.

So we ask ourselves: What does Popper's third world consist of? How is it composed? Why is the study or creation of Popper's World Three important in relation to epistemology and ontology? What kind of link is there between the two? Indeed, when Popper criticizes traditional epistemology, he does so because it has concentrated on World Two and, therefore, has erred in its study of scientific knowledge. Epistemology has confused “I know” with “knowledge”. The “I know” is subjective, while scientific knowledge, or rather epistemology, must study those elements that make up World Three, as we have already pointed out, which is objective.

Now, by pointing this out we realize that the fundamental basis of Popper's epistemology are the elements of World Three, therefore, the author has to give ontological weight to the elements he wants to study, since, otherwise, he would incur in a kind of psychologism or, even worse, idealism; which represent explanations or positions that for Popper are unacceptable and criticizable. But, in addition to the psychologistic and idealistic pseudo-explanations, the author encounters an additional problem, namely, that the fundamental source from which the author starts to develop his epistemic proposal is an unprovable source, namely, evolutionism. Thus, since we cannot rely on any of the aforementioned positions to grant ontological status to the elements proper to develop an epistemological proposal, the study must be directed towards “the objective products of the cognitive process” and, with this, Popper solves a

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

fundamental problem for the construction of his objectivist epistemology, since he assigns ontological status to ideas, theories, etc., whether they are true or not. After giving them this ontological status, it is easier to construct his epistemology, or rather, without this ontological status, there is no Popperian epistemology, since there is no object of study.

Now, what is most striking is the fact that Popper, in order to construct his epistemological edifice, resorts to Darwinian evolutionism, Plato, and Hegel, which bring together three of the positions most criticized and far removed from the Popperian philosophy of the so-called "first Popper." Now, let us leave this point for a moment and review how the author constructs his World Three.

The Popperean World Three Thesis

In both *Objective Knowledge*[15] and *The Self and Its Brain*[16], Popper expounds in detail on his famous theory about World Three. Our author explicitly points out the sources that inspired him to build the aforementioned theory. It is striking that the first authors cited as a direct source for the construction of the World Three are Plato and his *Theory of Forms*, and Hegel with his approach of the *Objective Spirit*. Both authors were strongly questioned by Popper, especially in his work: *The Open Society and Its Enemies*, as mentioned above[17]. The other two authors who serve as a source to the mentioned philosophers are Bolsano with his theory "on the

[15] Popper. *Op. Cit.*

[16] Popper, K. Eccles, J. *Op. Cit.*

[17] Popper. *Op. Cit.*

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

universe of propositions in themselves" and Frege with his "universe of the objective contents of thought". Incidentally, it is worth noting that the latter thinker has a strong tendency towards Platonism. Popper explicitly acknowledges his sources and proceeds to explain and justify his conception of the three worlds with arguments and examples drawn from evolutionary biology.

The description of Popperian worlds is as follows: World One is composed of the physical world, either material objects or physical states such as forces, processes, and force fields —at this point Popper adds— "although their reality remains conjectural" [18]. World Two is represented by mental states or states of consciousness, psychological dispositions, and unconscious states. At this level, we find knowledge, feelings, desires, ambition, etc. In the presentation of these two worlds, the author takes the opportunity to discuss how the two worlds relate to each other.

The formula or the solution proposed by the author to solve the old mind-body problem obeys a kind of "research program" called interactionism. Interactionism must discover and describe the nexus between the mind and the body, or more precisely, how the nexus between the mind and the brain occurs, making the details of this relationship as explicit as possible. The details of the mind-body relationship or, the degree of affection that these have when they interact, is what must be determined in order to reach a greater understanding, but not an absolute or full understanding, of knowledge in general. In short, interactionism is presented as an explanatory project of the mind-body problem.

[18] Popper. ***El Yo y su Cerebro***. *Op. Cit.* Page 41.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

Popper makes a brief description of World One and World Two, which do not require further explanation, but, according to him, in order for man to increase his understanding of things and have access to the cognitive world, he must study what the author calls "World Three". In this respect, Popper tells us:

> "*By World 3 I mean the world of the products of the human mind, such as stories, explanatory myths, tools, scientific theories (whether true or false), scientific problems, social institutions, and works of art. World 3 objects are of our own making, although they are not always the result of planned production by individual men.*"[19]

Popper maintains the existence of this World Three and proceeds to give us a long list of examples, justifications, proofs of its existence, etc., but always from a biological-evolutionary perspective. Of all these points mentioned, we consider that the most important to point out in this Popperean biological justification of World Three is the paragraph entitled: *A Biological Approach to the Third World*[20]. However, we must clarify that we work on this text in a global form together with the other texts related to the subject in order to obtain a general vision of the author's propositions on this matter.

For the time being, we would like to point out that Popper indicates that objects of World Three can be found incorporated into World One, others only exist as elements of World Two, but he also points out that there are incorporeal objects in World Three. Let us explain: books, magazines,

[19] Popper. ***El Yo y su Cerebro***. Page 44.

[20] Popper. ***Conocimiento*** ... *Op. Cit*. Page 111 y ss.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

sculptures, etc., are a good example of objects of World Three incorporated in World One; memories of theories, poems, etc., are objects proper to World Two but, also in World Three, we find objects that have not been embodied and, nevertheless, that "objective and incorporeal existence" is obviously given before the human being discovers them. These objects are there waiting to be discovered, even though they are human creations. With respect to this point, we share the three interpretations made by Professor Benjamin Sanchez in his previously cited work[21], which we will comment on a little later. For the moment, what we want to emphasize is that when referring to the autonomy of World Three, Popper leaves many cracks in his discourse that allow us to find serious contradictions in his epistemic construction. Man "invents" the natural numbers and, with them, unsuspected relations appear for man, relations that the researcher will discover to the extent that he is ready to study the original product through the method of trial and error. Man makes this primary invention, but within them, there are infinite quantities of cognitive structures to which we can only have access in reduced and limited quantities —the "fragmentary engineering" proposed by the author is based on this principle. In addition to this, once the invention is embodied in World One, it escapes man and ceases to belong to him to form part of World Three. The world from which it can positively or negatively affect the rest of humanity. Thus, a product can motivate the creation of other products and, in this way, a process of infinite evolution is developed, in which each inferior stage will be surpassed; allowing with this, not only a progressive knowledge and, therefore, evolutionary, but that this evolution of

[21] Sánchez, B. ***La inutilidad del***... *Op. Cit.* Page 66.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

knowledge responds in a similar way to the biological evolution of the species.

What we mean by this evolutionary process, which bases its progress on the method of trial and error, is that there are three possible interpretations for understanding the autonomy of World Three. Interpretations that complement each other and that give us a clear vision of what Popper constructs. In this respect, the author tells us:

> "As *a first interpretation, we would say that what this could mean is that we discover truths about the system we have created that are independent of our prior knowledge. A second interpretation would read as follows: there are at least some facts about the logical and mathematical systems that go beyond cases where what is at stake is the application of our ability to recognize those facts. Finally, it could be interpreted to mean that our practices are autonomous because they are not under our control; they control us.*" [22]

Indeed, if we follow Popperean propositions with respect to World Three, we will realize that our discoveries bring a whole series of unknown zones, of cognitive surprises, which can only be apprehended by a haphazard technique (trial and error). There is such a diversity of content in the inventions that men make that they make it impossible for us to obtain a total or quasi-total knowledge of the cognitive implications of our inventions or discoveries. Man, so to speak, gives the birth certificate to inventions, but then they become autonomous to influence us as they wish, or, in other words, they escape from our hands or from our sphere of

[22] *Ibidem.*

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

decision. Knowledge, in the first moment, led us to a concrete act, but after this act is formed, its potentiality and autonomy are absolute.

Following this discourse, the question that can be asked of Popper consists in knowing if, as man evolves, his cognitive capacity will also evolve. Or when will man be able to find cognitive parity with World Three? World Three has autonomy and is therefore not under our control. This immediate objection that comes to mind has already been raised by Currie[23]. Truths and falsehoods are intermingled in Popperean World Three and, worse, man does not even have the possibility of knowing truth or falsehood if not halfway. In the end, knowledge becomes a matter of faith. Man is controlled by chance, since we ask ourselves, how can we know if we are on the right path? How can we be certain about the influence that the truths and falsehoods found in this human invention can exert on us if our discoveries bring us so many surprises? In this sense, the questions regarding World Three could be diverse and infinite, and if we try to answer those questions in order to defend World Three, they will always have answers that could "justify" their existence.

Popper has used an argument which, although from a rational point of view is easier to refute than to accept, nevertheless provides a number of possibilities for the author to justify his World Three. But what would Popper say if we were to ask him what would happen to the books, thoughts, and theories that contradict with "proof" of the existence of his World Three? Are they also third-world elements? Popper's answer would be yes. Then, being consistent with the methodologist Popper, we would

[23] Currie's explanation of the all-encompassing nature of World Three is explained in the following work: Sánchez, B. *Op. Cit*. Page 66. Quote 82.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

ask him what the demarcation criterion is that would allow us to discern between what is science and what is not? Between what is true and what is false? If Popper has elaborated an evolutionary theory of knowledge to search for truth, what truth is the author talking about? How can there be a truth of the cognocent subject? These and all the questions asked about the validity of World Three could be answered by the theoretical autonomy that the author gave to his model of objective knowledge. Now, the method of science, according to Popper, is the rational method that has no other objective than to bring us closer to the truth. But how do we approach the truth? The author proposes the following formula:

$$P1 \rightarrow TT \rightarrow EE \rightarrow P2$$

We start from an initial problem (P1), then we propose tentative solutions for a theory that has or may have a certain degree of inaccuracy or total or partial error (TT), then we subject it to error elimination through a "critical discussion" or through "experimental testing" (EE) and, finally, the author says:

> *"new problems P2 arise from our own creative activity; and these new problems are not in general intentionally created by us, they emerge autonomously from the field of new relationships which we cannot help bringing into existence with every action, however little we intend to do so."*[24]

According to Popper, knowledge is evolutionary and, therefore, the approach to truth is also evolutionary. The autonomy of World Three, as

[24] Popper. ***Conocimiento Objetivo***. *Op. Cit*. Page 17.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

well as the influence (Popper says) that World Three exerts on World Two and World One, are fundamental for knowledge to increase. The way we grasp or understand the objects of World three is active, this means that: "we have to construe it: to see how it is made, and to re-construct it, to re-make it."[25] To achieve this, we must rehearse, try different solutions until we find the right one. According to Popper, this method of trial and error (Thorndike) is the appropriate one to access the truth, be it physical, biological, cultural, or social. The author establishes an analogy between the biologist and the epistemologist and points out that the learning process of the objects of World Three, although it is "cultural and social", responds in an analogous way to genetic or biological evolution.

> "*Several eminent biologists (Huxley [1942], Medawar [1960], Dobzhansky [1962]) have discussed the relationship between genetic evolution and cultural evolution. Cultural evolution, we may say, continues genetic evolution by other means: by means of World 3 objects.*"[26]

Through all the texts mentioned above, written by the "second Popper", we can appreciate how evolutionary biology is behind all the epistemological proposals made by the author. Popperian evolutionary

[25] Popper. ***El Yo y su Cerebro***. *Op. Cit*. Page 50.

[26] Popper. ***El Yo y***... *Op. Cit*. Pages 55 y 56

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

epistemology is inscribed in two main areas: on the one hand, it is a sort of metaphysical approach guided by some principles of biology and, on the other hand, it is an attempt to explain how societies, culture and, of course, man, evolve at the pace dictated by natural evolution. This denies any attempt to discover "immanent laws" to the historical or social process, which, by the way, is a thesis permanently sustained by the author throughout his work (Popper criticizes in all his works the immanence of any process related to the human sciences, history, or philosophy in general).

The problem we see in this construction (especially in The Misery of Historicism and in The Open Society and its Enemies), is mainly due to the following fact: 1) in the plane of "metaphysics" (philosophy) we consider that Popper does not manage to achieve the systematicity, coherence and cohesion that Plato and Hegel, for example, did achieve in their respective philosophical constructions[27] (we refer fundamentally to the contradiction

[27] Third World's thesis seems to us less systematic and organic from the philosophical point of view than that of the aforementioned authors for the reasons we have stated in the text. It should be clarified at this point that this conception, which derives from his "fragmentary engineering" of knowledge, far from being a problem for Popper, allows the author to submit his own construction to his "falsification principle". Following Popper, we can say that this approach is what gives a scientific rank to his theory, with which the author would agree, since he does not intend to construct a closed system that prevents it from being contrasted.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

between the Popper methodologist and the epistemologist). 2) On the level of biology, some positions assumed by the author have already been overcome in the field of biology itself and from evolutionary psychology[28]. 3) At the level of epistemology, the hypotheses from which the author starts are not verifiable, therefore, his epistemology loses the status of such and descends to the level of metaphysical discourse. 4) Finally, we must consider as unacceptable any attempt to reduce history, and with it social relations, to principles of biology (Spencer), physics (Comte), or any other monocausal element, which, far from seeking macro-explanations, limit knowledge. However, we consider that, somehow, the author finds serious limitations in his attempt to develop a consistent epistemological proposal and that, the construction of his World Three, makes him enter into contradictions even though we think that his third world construction is a consequence of his previous development or, in other words, we do not see an unbridgeable rupture between the Popper methodologist of *The*

[28] The development of biology and evolutionary psychology shows us that some of the premises assumed by the author are false. The relationship that exists between heredity and the environment allows us to distinguish, with greater precision than before, the biological from the social in the learning process of man. In this regard, we recommend the following texts: Anne Anastasi, ***Psicología Diferencial***. Especially chapter III James Whittaker, ***Psicología Evolutiva***. Editorial Interamericana. México 1984. Especially chapter 8, called: "**Herencia, Medio y Desarrollo del Niño**". Obviously the publication of these works are later than Popper's referred publications (especially his basic texts for understanding the Third World), but still our statement about Popper's limited knowledge of evolutionary biology and psychology remains true.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

Logic of Scientific Discovery and the epistemologist of *Objective Knowledge*. We simply understand it as the continuity of a work that, although it is true that at first it has different interests from his evolutionist works, it is no less true that the common thread that moves the author makes him reach rationalist positions that finally derive in the well-worn path of metaphysics. But, perhaps from the point of view of philosophy (not of science), this is one of Popper's great merits, or as Nietzsche would say:

> *"The great epochs of our life are the occasions when we gain the courage to rebaptize our evil qualities as our best qualities."* [29]

While recognizing the author's great contributions to the development of philosophy in general, and the philosophy of science in particular, we can point out that in relation to his epistemological approach, perhaps his metaphysics ends up becoming one of his great achievements or, as Nietzsche says, his "best qualities."

[29] Nietzsche, F. ***Más Allá del Bien y del Mal***. Edit. Orbis. Page 100, aphorism 116.

Albujas, M. (2025), **Karl Popper And the Evolution of Objectivist Epistemology: A Journey from Critical Realism to the Theory of World Three**. Metrópolis. Revista de Estudios Globales Universitarios, 6 (2), pp. 1380-1407.

References

Anastasi, A. (s.f.). *Psicología diferencial*. Interamericana.

Carnap, R. (1985). *Fundamentación lógica de la física*. Suramericana.

Echeverría, J. (1989). *Introducción a la metodología de la ciencia*. Barcanova.

Gómez, E. (2002). *Los valores no son falsables* [Manuscrito no publicado].

Kolakowski, L. (1988). *La filosofía positivista*. Cátedra.

Nietzsche, F. (1984). *Más allá del bien y del mal*. Orbis.

Popper, K. (1980a). *Conocimiento objetivo*. Tecnos.

Popper, K. (1980b). *La lógica de la investigación científica*. Tecnos.

Popper, K. (1984). *La sociedad abierta y sus enemigos*. Paidós.

Popper, K. y Eccles, J. (1980). *El yo y su cerebro*. Labor.

Sánchez, B. (1983). *La inutilidad del Tercer Mundo*. Universidad Central de Venezuela.

Whittaker, J. (1984). *Psicología evolutiva*. Interamericana.