

RESEARCH ARTICLE	<b>Features of contemporary epistemology in Mahmoud Yaqubi's project – Robert Blanchet as a model</b>	
< Samia Merabtine	University of Mohamed Lamine Debaghine, Setif 2	
	Algeria	
	Email Id: s.merabtine@univ-setif2.dz	
< Salem Dadda Nedjah	Research Laboratory for Social Development and Community Engagement	
	University of Martyr Hamma Lakhdar – El Oued	
	Algeria	
<	Email Id: dada-nadjehsalem@univ-eloued.dz	
	Doi Serial	<a href="https://doi.org/10.56334/sei/8.6.37">https://doi.org/10.56334/sei/8.6.37</a>
	Keywords	Epistemology, Project, Philosophy, Rules.
<b>Abstract</b>		
In this article, the author highlights the crucial importance of contemporary epistemology—as articulated by Robert Blanché—for structuring philosophical education in Algeria. Building on Dr. M. Yaqoubi's work, the paper emphasizes his project of translating and introducing Blanché's foundational texts into Arabic to equip Algerian students and instructors with rigorous conceptual tools. The primary aim is twofold: first, to map out the major strands of modern theory of knowledge in Blanché's work (the interplay between formal logic and natural thought, dynamic mathematical rationality, and the construction of relational models); second, to show how Yaqoubi integrated these strands into an “epistemological lesson design,” meaning the precise planning of key notions and the enrichment of philosophical vocabulary in Arabic. The results demonstrate that, through his careful translations and pedagogical method, Yaqoubi not only clarified the concept of epistemology for a Franco-Arabophone audience but also laid the groundwork for a coherent, contextually adapted epistemological curriculum in Algeria—paving the way for philosophical inquiry more deeply rooted in local scientific and cultural realities.		
<b>Citation</b>		
Merabtine S., Dadda Nedjah S. (2025). Features of contemporary epistemology in Mahmoud Yaqubi's project – Robert Blanchet as a model. <i>Science, Education and Innovations in the Context of Modern Problems</i> , 8(6), 349-353; doi:10.56352/sei/8.6.37. <a href="https://imcra-az.org/archive/364-science-education-and-innovations-in-the-context-of-modern-problems-issue-6-volvi-2025.html">https://imcra-az.org/archive/364-science-education-and-innovations-in-the-context-of-modern-problems-issue-6-volvi-2025.html</a>		
<b>Licensed</b>		
© 2025 The Author(s). Published by Science, Education and Innovations in the context of modern problems (SEI) by IMCRA - International Meetings and Journals Research Association (Azerbaijan). This is an open access article under the <b>CC BY</b> license ( <a href="http://creativecommons.org/licenses/by/4.0/">http://creativecommons.org/licenses/by/4.0/</a> ).		
Received: 11.02.2025	Accepted: 27.04.2025	Published: 18.05.2025 (available online)

## Introduction

The field of epistemology, or the theory of scientific knowledge, is considered one of the most important areas of contemporary philosophy. It has increasingly attracted the attention of many modern philosophers, driven by the belief in the significant role that contemporary science plays in shaping various cognitive systems

and discourses, as well as in constructing philosophical concepts and models that define the current philosophical landscape. This is simply because, as Gaston Bachelard puts it, "true science creates philosophy."

Dr. Mahmoud Yaakoubi (May he rest in peace) was fully aware of this importance. He recognized the role and value of epistemology in shaping philosophical education in Algeria. This awareness led him to focus on translating

and Arabizing key sources in this field, in order to facilitate their understanding, assimilation, and teaching for university specialists. He believed that his project of establishing a philosophical curriculum would be incomplete without a solid foundation in the theory of scientific knowledge.

Dr. Yaakoubi dedicated himself to translating most of the epistemological and logical works of the French philosopher Robert Blanché. He did so due to the importance of the epistemological paradigm presented in Blanché's writings and also because modern epistemology today relies heavily on the concepts and propositions rooted in the mathematical rationality developed by this contemporary philosopher—a value that our late professor fully understood.

This research paper aims to shed light on Dr. Yaakoubi's contributions to epistemology, particularly his efforts in introducing the epistemology of Robert Blanché. It seeks to explore the features of contemporary epistemology as viewed by the late scholar and its role in shaping philosophical education at both the secondary and university levels. The central question guiding this study is: What are the key features of Robert Blanché's theory of knowledge, and where does its importance lie in establishing the epistemological curriculum according to Mahmoud Yaakoubi?

**The Intellectual and Epistemological Background of Dr. Mahmoud Yaakoubi.** Professor Mahmoud Yaakoubi (may he rest in peace) is regarded as one of the most prominent thinkers who laid the foundations of philosophical thought in Algeria. His contributions and writings have enriched the Arab and specifically Algerian philosophical library. His ideas formed a cornerstone for the development of philosophical education at both the secondary and university levels. Among the fields he devoted himself to were epistemology, in addition to logic, the didactics of philosophy, and even metaphysics. His distinctive touch was particularly evident in his efforts to introduce the theory of scientific knowledge through translations that significantly contributed to the field of epistemology in Algeria.

One of the intellectual foundations that supported his engagement in this field was his deep interest in logic, its history, and the various logical problems. This is evident in his Master's thesis titled *Ibn Taymiyyah's Critique of Aristotelian Logic*, as well as in his doctoral dissertation entitled *The Paths of Causality and the Principles of Induction According to the Usulis and John Stuart Mill*, which combined logic and epistemology, particularly in their view of the inductive method.

His deep engagement with the history of logic also played a major role in shaping his epistemological approach. This is due to the strong connection between logic and the theory of science—particularly when discussing the development of scientific methodologies and their rela-

tion to logical theory. Thus, epistemology became the fruit of this intellectual pursuit. This connection is clearly stated in the introduction to his translation of Robert Blanché's *Theory of Science*, where he affirms the close relationship between logic and epistemology. In his view, this book deals with "the science that studies the logical value of knowledge, which is commonly referred to as the theory of science or epistemology" (Robert, p. 03).

A close examination of Yaakoubi's philosophical project reveals his persistent insistence on the necessity of adapting philosophy—with all its fields, concepts, and even problems—to the Arab-Islamic environment on one hand, and to the specific realities of Algerian society on the other. This was particularly important in light of the many challenges and obstacles that have long hindered philosophical engagement in Algeria.

Amid this difficult climate, Yaakoubi dedicated himself to establishing a solid philosophical foundation with a logical spirit and strict methodology—one that begins with a philosophically sound and epistemologically robust approach. His goal was to help create a mature philosophical environment capable of producing sophisticated philosophical projects that could stand alongside the major contemporary philosophical systems on the global stage.

Believing that true civilization can only be built upon the dual foundation of philosophy and science, Yaakoubi (may he rest in peace) was convinced of the necessity for philosophical education to open up to science and to engage with contemporary scientific theories. These theories have increasingly shaped many modern philosophical systems and contributed to the construction of various philosophical concepts and ideas. This conviction led him to focus extensively on the fields that explore the interrelationship between philosophy and science. It was clearly manifested in his translations of works specialized in the philosophy of science—particularly epistemology—including his translations of Robert Blanché's books: *Theory of Science*, *Induction and Natural Laws*, and *Axiomatic Theory*, among others.

## 2. Laying the Foundations for Contemporary Epistemological Study

Professor Yaakoubi (may he rest in peace) believed that current philosophical studies are deeply engaged with the theory of scientific knowledge, especially in light of the scientific developments occurring across various disciplines—whether formal, experimental, or even human sciences. These developments have significantly contributed to a major conceptual and methodological revolution that has shaken the foundations of philosophical thinking and dismantled many paradigms once considered valid. It is well known that "the developments witnessed in scientific thought since the second half of the sixteenth century accelerated the birth of scientific and

philosophical ideas that have become central to the study of the philosophy of science" (Al-Qadir, 2006, p. 16).

From another perspective, the relationship between philosophy and science is based on two dimensions: the first is that philosophy concerns itself with science itself, making it the focus of its analyses—particularly through examining its concepts, logical structure, foundational principles, and underlying methodologies. The goal here is to uncover science's epistemological mechanisms and the elements of creativity within it, thus constituting a *scientific philosophy*. The second dimension lies in philosophy's attempt to employ some of the results or theories of science, whereby science—with its precision—becomes a philosophical tool used to engage in ideological debates and defend philosophical positions (Al-Fattah, 2001, p. 12).

This is the very idea that Mahmoud Yaakoubi emphasized in his epistemological project. He stated: *"The term 'epistemology' has often been repeated by both students and teachers of philosophy, since modern philosophical studies have become immersed in the problem of knowledge before the problem of existence. And as contemporary knowledge has become dominated by mathematical and physical elements, scientific knowledge has become a subject of inquiry, a field of debate, a starting point for trends, and a source for science itself"* (Robert, pp. 03–04).

The second motive behind Yaakoubi's turn toward epistemology lies, in his view, in the ambiguity and confusion that often surround the concept and intended meaning of epistemology. He observed the widespread misuse of the term without careful distinction, which, in his opinion, necessitates a dedicated effort by scholars in the field to eliminate this epistemological terminological disorder. As he put it: *"As a result, the term 'Theory of Science,' which I preferred to use in translating the word (Epistémologie), began to appear frequently in the discourse of philosophers, to the extent that its meaning sometimes expands to become synonymous with the philosophical theory of knowledge."* (Robert, p. 04)

For this reason, Yaakoubi devoted himself to translating epistemological works in search of precise epistemic concepts and to introduce students and researchers to this emerging field. His aim was to make it easier for them both to study it and to understand the intellectual problems of the twentieth century and beyond. He stated: *"With the desire to enable students and teachers to dispel the confusion around this concept and to explore the problems of this nascent science, I chose to translate from French a short book—rich in benefits related to epistemology—written by a philosopher well-versed in its issues. His aim was to offer a summary of his epistemological studies to students, so that it may serve as a guide illuminating their path in study and research—research that cannot ignore the philosophy of the twentieth century, which is almost entirely centered on the issues raised*

*by scientific progress and the intellectual struggle of humans with their own culture, born of the challenges presented by science in its modern and contemporary form."* (Robert, p. 04)

In addition, most epistemological studies are foreign, and it is rare to find original Arabic studies in this field due to its novelty and the recent emergence of its topics. For this reason, Yaakoubi (may he rest in peace) turned to translating specialized books in this domain. Therefore, it is no surprise that translation occupied a central place in Yaakoubi's intellectual project: *"He was able, thanks to his mastery of both Arabic and French, to engage in the battle of words, meanings, and syntactic structures from one language to another."* (Yaakoubi, 2018, p. 300)

Given our teacher's intellectual depth, rigorous methodology, encyclopedic knowledge, and comprehensive grasp of most philosophical concepts—along with his command of foreign languages and cultures, especially French—translation was a relatively easy task for him. On the other hand, Yaakoubi also observed the weakness of Arabic translations of foreign terms. This led him to believe that it was necessary for the Arabic language to keep pace with these terms and develop accordingly, insisting on their frequent use so that scholars might coin new meanings and enrich the language with dynamic vocabulary. He said: *"I undertook the translation of meanings using unfamiliar terms, except in cases where it was not possible, believing that frequent usage and mastery of meanings would enable Arabic speakers to coin, create, or discover within the linguistic treasury the terms needed to express new meanings."* (Robert, pp. 05–06)

One of the examples that demonstrate the accuracy of translating foreign terms in epistemology, as presented by Al-Yaqoubi, is the term "axiomatic," which he translated as the term "al-'ard al-muṣādirātī" (the presuppositional presentation) to distinguish it from the "al-'ard al-badīhī" (the intuitive presentation). This explicitly indicates his view that contemporary mathematics starts from the hypothesis as a self-evident primary assumption, thereby transforming the concept of intuition into presupposition or axiom in the Euclidean sense.

### 3. Motivations for Choosing Blanché's Epistemology

Robert Blanché (1898–1971) is considered one of the most important contemporary epistemologists who worked on the developments of formal sciences: mathematics and logic. Perhaps the point of convergence between Al-Yaqoubi and Blanché is their starting point in logical studies, especially those related to formal and mathematical logic. Blanché advocates for the necessity of expanding logic into all fields. For thought to be as precise as mathematics, it must not dispense with the study of mental structures, which are essentially the result of the development of the theory of logical inference. He believes that the expansion of the theory of inference "should not prevent the philosopher from the possibility

of combining formal rigor, as is the case in logic, with its applicability to thinking in natural language loaded with meanings" (Blanché, 2004, p. 3). This idea is praised throughout most of his works, such as his book *Inference* (1937), *Reason and Discourse* (1966), *Axiomatic* (1959), and *Epistemology* (1972), among others.

Mahmoud Yaqoubi considered Robert Blanché one of the most important scholars and specialists in epistemology and its problems. He says, "Robert Blanché, the French philosopher who showed great interest in formal logic in both its classical and modern forms, as well as in the philosophy of science, became a philosopher operating in the realm of science with the perspective of a logician knowledgeable about the significance of scientific data. Thus, he was an expert in the logical value of scientific data in its modern sense" (Robert, p. 3).

In addition to his logical and formal background, Blanché is considered one of those influenced by the streams of Bachelardian philosophy and who advocated for the development of its epistemological theses and concepts. Salem Yafout observes that most of Blanché's studies tend toward a rationalist Bachelardian approach – that is, an approach that sees modern philosophy of science as not conforming to general philosophical opinions nor to systematic philosophical views (Yafout, p. 5). Therefore, the rationalism Blanché adopted is a logical and formal rationalism, which leads him to consider scientific knowledge as based on development and renewal – dynamic and changing rather than static and fixed.

Blanché justified his choice of epistemology books by the fact that they rely on a smooth educational style that makes it easy for the learner to understand and grasp the problems of science in simple language and with a clear logical methodology. For example, he says about the book *Theory of Science*: "A teaching book that presents to the philosophy student, in precise language and with an educationally effective arrangement, the most important aspects of the theory of science" (Al-Yaqoubi, 2018, p. 4).

As a result of this comprehensiveness in Blanché's thought, he provided a presentation of general epistemology without delving into specialized epistemologies, since the former, from an educational and definitional perspective, represents the transition from general epistemology to specialization in each science individually – as found, for example, in his book *Axiomatic*, which specializes in the epistemology of mathematical science.

While our professor admired Blanché's thought and appreciated him, he criticized him for his ignorance or disregard of the contributions of Arabs and Muslims in the field of sciences and their classification. He says, "We cannot overlook here the author's ignorance or neglect of the perspective of some Arab thinkers on the classification of sciences. It is not befitting for anyone studying

general epistemology to ignore this" (Al-Yaqoubi, 2018, p. 5).

It is no secret that Arabs have made many contributions throughout history to the construction of scientific theories, as well as to the methodologies and classifications of sciences. Many Western historians of science and epistemologists overlook this fact, which reflects the intellectual authenticity of our late professor—may God have mercy on him—who defended the Arab-Islamic identity and the scientific history of Muslims at a time when, unfortunately, many Arab thinkers preferred to disown this heritage under the influence of their admiration for the achievements of Western civilization.

#### 4. Characteristics and Features of Contemporary Rationalism according to Blanché:

Blanché's philosophical stance can be understood within the framework of contemporary rationalist philosophy, which aligns with the results of the modern scientific revolution. It is a continuation of the project of thinkers such as Brunschvicg, Bachelard, and others who rejected classical rationalism, which believes in a fixed and predetermined reason applicable to every possible experience (Mohammed, 1983, pp. 415–416). His view also aligns with Bachelard's dialogue between reason and experience, and with Kuhn's openness to experience. Thus, the role of reason is not limited to merely receiving the influence of experience; its effectiveness depends on mathematical and logical means, and it is an active force that contributes to constructing and discovering the object of knowledge—something confirmed by the results of contemporary science.

Indeed, anyone who reflects on contemporary science and its results must notice that it is characterized by a shift from thinking about the real essence or the thing-in-itself to thinking about the relationship. This is due to the intervention of the mathematical method based on a system of relationships among sets of mathematical structures. On this, Blanché says: "When thought moves from the conceptual structure to the mathematical structure, this is a transition from the absolute thing or essence to the thing gradually built upon a network of relations, thus there is a reversal in the relations of thought with its object and the relation of knowledge to being" (R. Blanché, 1984, pp. 24–31). This makes Blanché a representative of mathematical idealism, which is concerned with constructing a complex system of relations to express the sensory qualities that the senses provide us, thanks to mathematics.

Therefore, what distinguishes mathematical rationalism in Blanché's thought is that it falls within a renewing current in idealist philosophy. Undoubtedly, this rational current attempts to bridge the gap that existed between the subject and the object, between reason and experience, and between empirical physical science and mathematical science. These are two sciences that draw inspi-

ration from the same model, which is the attempt to search for a philosophy of objective knowledge. "Physics tends toward the theses of mathematical idealism and leans in its direction; thus, mathematical idealism alone can save us from falling into subjectivity and the dichotomy of reality and the thing-in-itself" (Yafout, p. 157).

Perhaps this orientation dominates epistemological thought today in its various trends and forms the main framework for the study of the philosophy of science, which no researcher, student, or teacher of philosophy can overlook. This is the central point that our late professor Al-Yaqoubi—may God have mercy on him—wanted to convey in his project on epistemology.

### Conclusion

At the end of this presentation, we conclude that Mahmoud Yaqoubi's epistemological project is based on two integrated dimensions that complement each other: on one hand, the educational dimension, which centers on building a clear methodology for teaching epistemology, beginning with precise definition of fundamental terms and ensuring students understand general concepts

before delving into the details of specialized epistemology. This approach establishes strong foundations that guide the learner step by step in selecting and analyzing cognitive issues. On the other hand, the cognitive-scientific dimension is embodied in enriching the Arab—and specifically Algerian—library with a collection of accurate translations and contemporary studies in the field of the theory of knowledge.

This was necessary because the field previously lacked such resources or was obscured by linguistic weaknesses and inadequate translations. Yaqoubi took on the task of introducing the Arab reader to the nature of these sciences and their logical and mathematical foundations. He also contributed to expanding the Arabic philosophical vocabulary by introducing new terms and adapting them according to the local cultural and linguistic context. This is a significant effort, especially in the current multilingual and digital environment, where there is an urgent need for high-quality knowledge resources that promote philosophical dialogue and strengthen scientific research in the Arab world.

### References:

1. Badawi, Abd al-Fattah. (2001). *Philosophy of Science*. Dar Qubaa for Publishing and Distribution.
2. Blanché. (2004). *Logic and Its History from Aristotle to Russell*. Dar Al-Kitab Al-Hadith.
3. Blanché, Robert. (n.d.). *Theory of Science - Epistemology*. (Trans. Mahmoud Al-Yaqoubi, et al.). Algeria: Diwan of University Publications.
4. Salem Yafout. (n.d.). *Contemporary Philosophy of Science and Its Concept of Reality* (1st ed.). Lebanon: Dar Al-Taliaa for Printing and Publishing.
5. Maher Abd al-Qader. (2006). *Philosophy of Science*. Alexandria Library.
6. Maghribi, Zain Al-Abidin & Mahmoud Al-Yaqoubi. (December 2018). Authors and Translators in Logic. *Funoon Journal*, 10(02).
7. Waqidi, Muhammad. (1983). *What is Epistemology?* (1st ed.). Beirut: Dar Al-Hadatha.
8. R. Blanché. (1984). *La science physique et la réalité*. France.