

# The authenticity of research problems

## Abstract

The definition of the research problem is fundamental, necessary to approach the study phenomenon. In spite of its relevance, it is not clear the method used to define it, which makes it difficult to design tools to approach the research phenomenon. This essay proposes a look from the concept of authenticity of the problem in the framework of analytical postmodernism to approach the named factor. In total, six study works published between 1921 and 2023 were considered, then ontological and epistemological elements underpinning authenticity were identified. The results showed that the research problem can be supported from the viewpoint of three perspectives: informal logic, critical positivism and postmodernism.

**Keywords:** research problem, authenticity, informal logic, critical positivism and postmodernism

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## Introduction

Authenticity as a concept has been quite widely addressed, however, as mentioned by Hernández-Sampieri et al.<sup>1</sup> in order to be more precise, it is necessary to establish specific questions that guide the definition of the research problem. Therefore, it is necessary to investigate the roots of authenticity from the framework of analytical postmodernism with which it is possible to support the research problem from the informal and formal logic for the understanding of the reality of the phenomenon under study. From the rhetoric of contemporary logic Kahane<sup>2</sup> establishes a critique of formal logic based on mathematical axioms and proposes informal logic, which is based on language as a method of experimental reasoning; thus validating the research task in the face of perceived reality. Therefore, the research problem follows a systematic process from the informal and formal logic that through a procedure delimits the reality under study. The above shows that the correct approach to the research problem requires a protocol that, through questions and answers, guides the researcher to define it.<sup>3</sup> In this way, the process, the justification of the need and the importance lead to the substantiation of the authenticity of the problem to address the phenomena under investigation from contextual, social and economic relations.

This purpose also requires the consideration of other variables such as theoretical, methodological and pragmatic value, Alspach<sup>4</sup> establishes that the definition of the research problem uses the formal and informal logic of the scientific method, as a space of convergence of empiricism, reasoning and type of research. Thus, the definition of the research problem suggests finding a general problem and subproblems. The structure of this essay is made up of three sections: the first explains the approach, the second explains the perspectives and the third presents the conclusions. In view of the above, *authenticity* was focused on illustrating the arguments that support the approach to the research problem as a fundamental process for the understanding of the study phenomenon. The results are expected to be useful.

## Statement

It begins with a description of the selection of the works:

### Selected works

Two approaches were used to understand the concept of *authenticity*: the approach of epistemological concepts of analytical postmodern philosophy. Then, the scope of the authenticity concept

was sought to support the arguments expressed by the guiding documents. Both approaches allowed filtering works that met the desired elements from 1921 to 2023, six works were obtained. Works that did not meet the standards of the approaches were excluded.

### Identification of epistemological and conceptual elements

Elements related to systemic-rational epistemology are identified, which addresses the logical/structuralist reality of analytical philosophy covering praxeological/semantic elements of the research problem statement.

### View from authenticity

The epistemological elements found allowed us to propose concepts and arguments that will support the guiding documents. Then, the following perspectives are constructed: informal logic, critical positivism and postmodernism. The works characterized by their epistemological and conceptual elements for the construction of the perspectives are listed, as shown in Table 1.

**Table 1** Works used for the construction of the different

Perspectives	References
Lógica Informal	Kahane; <sup>2</sup> Strawson <sup>5</sup>
Positivismo Crítico	Kuhn <sup>10</sup>
Moulines <sup>6</sup>	Bauman <sup>7</sup>
Posmodernismo	Quine <sup>8</sup>

**Informal logic:** with Kahane<sup>2</sup> it is established that the interpretation of physical reality as a product of research, conceives the theory of argumentation through the use of language to analyze, evaluate and criticize fallacies during the interpretation of reality. The above suggests that research is an interdisciplinary process that overcomes the linearity of the formality given by mathematics, thus the research problem is approached with more tools to the study phenomenon.

According to Strawson<sup>5</sup> he is concerned with the use of language not from a logic that allows describing and interpreting reality but in the search for truth, thus constructing a narrative of verificationist language based directly on the definition of the objects of study in language; in this way language assumes a role of intentionality in the development of meanings with a condition of truth. Based on the above, the approach to the research problem is based on the connections of meaning.

With Hernández-Sampieri et al.<sup>1</sup> in posing forms and actions for the statement of the research problem, uses informal logic in the form of verbs, since this is how the different types of research are distinguished; in this way, the objects of study are related in terms of meanings. Thus, the adequate definition of the research problem requires the construction of meanings conditioned to the truth in order to approach the phenomenon of study.

The construction of meanings in the relationship between the object of study and the statement of the research problem, through the verificationist use of truth conditions in informal logic, constructs a scheme of authenticity to delimit the research problem, as illustrated in Figure 1. The Figure 1 refers to the description of the study phenomenon, which indicates that in order to define the problem, the description must be delimited.

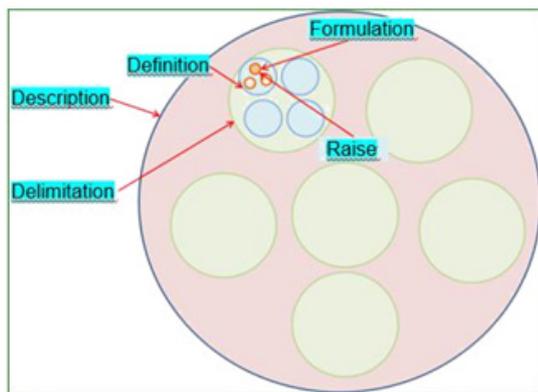


Figure 1 Delimitation of the research problem.

Source: Zuluaga et al.<sup>9</sup>

**Critical positivism:** Moulines<sup>6</sup> establishes a critique of informal language by not going beyond the epistemological phase to approach reality as formal logic does, thus building a pluralistic structure that complements the verification of the meanings conditioned to the truth of reality. With pluralism, guiding concepts are developed that allow the incorporation of metaphysical meanings found in the phenomena under study in order to formulate the problem.

Kuhn<sup>2</sup> proposes that reality is dynamic and responds to the implementation of new paradigms, which is how science responds to changes in reality in a complex and non-linear way, requiring validation and verification of the methods of approaching reality by the scientific community. Thus, it is observed that the approach to the research problem requires a procedure that guarantees the generation of knowledge on a regular basis.

Based on the above argumentation Wedell-Wedellsborg<sup>3</sup> proposes that the problem statement is the crucial part to understand reality and seek solutions, so they establish a procedure composed of: contextualization, description of the need, articulation of the need and justification to pose the research problem from questions oriented by the researcher that allow him to delimit the phenomenon under study.

Authenticity from this perspective links elements to the informal logic that allows categorizing the research problem through pluralism in the significance of the concepts in reality, supported by the authenticity that, through questions, guides the researcher, as illustrated in the following Figure 2.

Figure 2 above refers to the three processes necessary to construct the categorization needed to formulate the research problem.

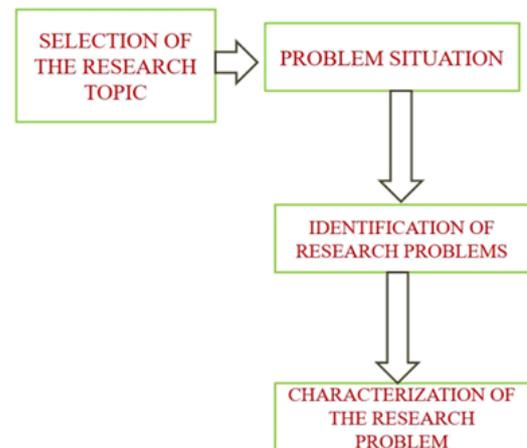


Figure 2 Categorization of the research problem.

Source: Zuluaga et al.<sup>9</sup>

**Posmodernism:** Bauman<sup>7</sup> analyzes the dynamics of modernity from the economic, political and social changes as the emergence of a new form of intellectual understanding of society. This form is changing, which shows that nature does not follow a systematic trajectory as in the previous perspective, thus the research problem in the framework of modernity is understood as the need to materialize order in nature.

Similarly, Quine<sup>8</sup> evidences a confusion in the distinction that formal science makes between ideas and facts, since it suggests a pre-established structure of order in the relation between meaning and object that allows to fulfill the assumption of the scientific method that there is a systematic order in nature; which is false because the perception of reality is personal. Thus, relativism to the supposed order arises. Thus the research problem must demand reliability but not a material order.

On the contrary, Alspach<sup>4</sup> proposes that the approach to the phenomena of study implies the differentiation of the concepts: research, reasoning and empiricism, which establish an order in the nature of study and which allows to control what can be counted. In this way, it is possible to fulfill the assumption of generality in the scientific method to define the causal relationships between fact and meaning through the use of research questions, subproblems and objectives.

Authenticity in postmodernism links elements of language and meaning that criticizes the structuralist nature of the materialist assumption of order imposed by the scientific method. Thus research must be contextualized, as illustrated in Figure 3.

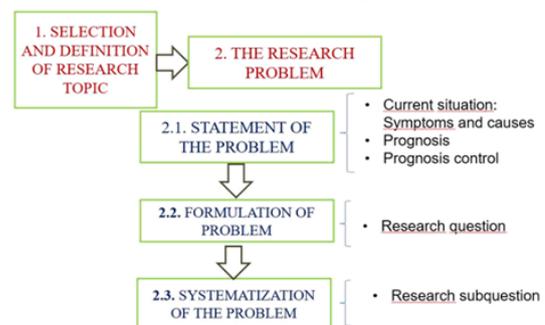


Figure 3 Formulation of the research problem.<sup>7</sup>

Note: Zuluaga et al.<sup>9</sup>

Figure 3 refers to the necessary elements and characteristics that, from the social context, make it possible to construct in a first step the approach to the research problem in order to arrive at the formulation through subquestions.

## Conclusion

- I. In the informal logic, the linking of conditional meanings to the truth as a tool for verification of the reality observed by the researchers is observed. In this way, the description, delimitation and formulation of the research problem is based on authenticity by complementing the formal logic as a proposal to elucidate nature as a discourse proper to language from a factor of reflection of the phenomenon of study.
- II. The perspective of critical positivism is not reduced to Hegel's phenomenology, for the explanation of reality, on the contrary, a critique of the formal and informal logic of Strawson's verificationism is constructed, which is complemented with the study of the proposal of pluralism to approach phenomena of study in reality which is dynamic, in which every certain time proposes a temporary scientific paradigm. For this reason, the statement of the research problem requires a procedure.
- III. In postmodernity, the systematic structuring of nature in the scientific method was criticized in order to migrate towards an understanding of perception in the formulation of research problems, which requires moving away from the materialistic order imposed on the phenomenon under study. In this way, the research problem requires reliability in the process of approach and formulation that allows recognizing the dynamics of modernity in reality and contextualizing the phenomenon under study.
- IV. The posture sustained in this document is postmodernism, since it allows overcoming the naturalization of the pre-established order in reality and the generalization of causes between fact and meaning, which moves away from critical positivism by considering the social, economic and cultural dynamics of reality as well as its phenomena under study. Thus, the approach to the research problem in its delimitation considers contextual variables.
- V. This document was a reflection from the philosophy of analytical postmodernism of different authors, regarding the authenticity of the research problem in the whole construction of the approach to the study phenomena found in reality. It is recommended for future reflections to approach positions from existentialism, which provides a broader understanding of the approach to the study phenomenon and the semantic relation object/definition in the approach to the research problem.

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## Conflicts of interest

The author declares there is no conflict of interest.

## References

1. Hernández-Sampieri R, Fernández Collado C, Baptista Lucio P. *Metodología de la investigación* (Vol. 4). McGraw-Hill Interamericana México. 2018. p. 1–643.
2. Kahane H. Baumer on the confirmation paradoxes. *The British Journal for the Philosophy of Science*. 1967;18(1):52–56.
3. Wedell-Wedellsborg T. Are you solving the right problems. *Harvard Business Review*. 2017;95(1):76–83.
4. Alsopach B. Research problem 3. *Discrete Math*. 1981;36(3):333–334.
5. Strawson PF. Skepticism and naturalism: Some varieties. In *Skepticism and Naturalism: some Varieties*. Columbia University Press. 1985.
6. Díez JA, Moulines CU. *Fundamentos de filosofía de la ciencia*. 3<sup>rd</sup> edn. 1997.
7. Bauman Z. *Liquid modernity*. John Wiley & Sons. 2013. p. 240.
8. Quine WVO, Sacristán M. *Desde un punto de vista lógico*. Orbis. 1984.
9. Zuluaga M, Arbelaez-Echeverri O, Robledo S, et al. Tree of Science - ToS: A Web-Based Tool for Scientific Literature Recommendation. Search Less, Research More! *Issues in Science and Technology Librarianship*. 2022(100).
10. Kuhn TS, Joergensen J, Rougier L, et al. (paperbound) Library of Congress Catalog Card Number. *International Encyclopedia of Unified Science*. 1970;2(2).