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Research management in times of increasing complexity: Towards the construction of new cartographies

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Abstract

Aware that reality is characterized by being multiform and with arbitrary variables, this article aims to reflect on the epistemic foundations required in the management of research in times of increasing complexity as mechanisms for the construction of new cartographies. It was addressed under the documentary research method, using the content analysis and summary sheet as recording techniques of the information extracted from the bibliographic sources consulted. The results indicate that the classical vision of science has imposed a rationality based on empiricism and mathematical rationalism, conducting the investigative work through fixed territories, approaching reality with a single method. However, currently rigorous scientific practice is not limited to standards or a priori models. An ontological understanding is required to locate and select the appropriate method that provides a relevant solution to the research problem. Finally, it is concluded that it is time to dethrone the traditional authority to think and act from the complementary articulation of scientific logies and/or rationalities, which lead to an epistemological turn that invites to combine pure reason with social knowledge, monological with multi-methods, analytical thinking with polyvocal thinking.

Keywords: Research management; method; complementarity; cartographies; empiricisms.

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Gestión de la investigación en tiempos de complejidad creciente: Hacia la construcción de nuevas cartografías

Resumen

Consciente de que la realidad se caracteriza por ser multiforme y de variables arbitraria, este artículo plantea como objetivo reflexionar sobre los fundamentos epistémicos requeridos en la gestión de la investigación en tiempos de complejidad creciente como mecanismos de construcción de nuevas cartografías. Se abordó bajo el método de investigación documental, empleando el análisis de contenido y ficha resumen como técnicas de registro de la información extraída de las fuentes bibliográficas consultadas. Los resultados indican que, la visión clásica de la ciencia ha impuesto una racionalidad basada en el empirismo y racionalismos matemático conduciendo el quehacer investigativo por territorios fijos, abordando la realidad con un solo método. No obstante, actualmente la práctica científica y rigurosa no se limita a estándares ni a modelos a priori, se requiere de una comprensión ontológica para ubicar y seleccionar el método adecuado que brinde solución pertinente al problema de investigación. Finalmente, se concluye que es momento de destronar la autoridad tradicional para pensar y actuar desde la articulación complementaria de las lógicas y/o racionalidades científicas, que conducen a un giro epistemológico que invita a conjugar la razón pura con conocimiento social, la monológica con multimétodos, el pensamiento analítico con el pensamiento polivocal.

Palabras clave: Gestión de la investigación; método; complementariedad; cartografías; empirismos.

Introduction

The dynamics of the contemporary world requires the scientific community to rethink the role of science in the crucial moments that humanity is going through. In these times it is pertinent to reflect on the chaos, the growing complexity and the events that show the social, political, economic, cultural and environmental tragedy that is being experienced. Today it is also necessary to study the epistemic foundations of research, this has led to revealing that qualitative research is not only to explore, the task is also to provide arguments that weaken the myth about the non-scientificity of this qualitative rationality.

Many attempts have been made to correctly point out some academicinvestigative solutions in the face of the uncertain, changing, unstable and even unexpected reality that science has had to face, from a hologrammatic vision of man-world interaction that goes beyond the traditional currents of thought that govern scientific work and that have led to negative results translated, as Vallejo & Gómez (2011) point out "in terms of anti-globalization, unsustainability and global energy crisis" (p.9).

This rethinking of investigative practice is not a new proposal, since in 1967 the discoverer of the quantum mechanics equation who laid the foundations of modern physics, the great physicist Schrödinger considered that current science had led to a dead end, therefore, the scientific attitude should be reconstructed, it is time to remake science. This reflection indicates that it is not possible to remain anchored to steady territories, it is time to explore new cartographies (Najmanovich, 2008) that lead to this scientific reconstruction or redo through investigative management processes with opening thoughts towards the complementarity of rationalities.

The need arises to enrich the epistemological bases of scientific work. through philosophical and theoretical contributions that brings to the management and construction of new methodological routes based on the understanding of the processes required by the new science. In this sense, research implies managing processes and procedures, therefore, the researcher must review and analyze its paradigmatic position as a support for the ground on which it stands; as well as, examine the strength and direction of the currents of the waters in which it moves: Interpreting Martínez (2003), this translates into "the strength of the assumptions it accepts and the level of credibility of its postulates and basic axioms" (p.2).

In this order of ideas, Kuhn (2004) shows a range of concepts about paradigm, used as a synonym for a model or pattern associated with the ideal or correct, that is, the way of seeing and thinking of the researcher; but at the same time, the author maintains that a paradigm is related to beliefs/creations, a notion that is located in the real plane, in the empirical world whose perceptions outline the existence of facts, events and/or processes.

Also, it is pertinent to consider that every paradigm contains rules and regulations that establish and define borders, indicate how to behave within those borders; therefore, it leads to manage science from the dialectic between what is correct and what is real, understanding that intersubjectivity is generated in the real plane, where the interaction, intercommunication and language constitute the basis of the epistemic presuppositions that govern scientific inquiry and lead to the creation of new cartographies to generate valid knowledge.

This new way of managing research implies a task that consists of assuming the paradigm based on qualitative and/or quantitative rationality as a coherent structure, constituted by a network of intertwined concepts, theoretical and methodological beliefs that allow the selection, evaluation and reflection on the subject, problems and methods by the scientific community. In this regard, Martínez (1997) indicates that the paradigm is "a synthesis of concepts, beliefs, community commitments, ways of seeing, etc. shared by a scientific community..., [for this, one must be aware that] science is not a treasure of truths accumulated over time" (p.34); it is a process of substitution of truths, not dogmatic, whose practice cannot be governed by a rigid, immutable system and of absolute principles as Feyerabend (1975) proposes. In short, it is necessary to achieve a status that allows scientific progress by ordering and systematizing knowledge.

Given the above, science can currently be characterized as a process of exploration that leads to disclosures, discoveries and rediscoveries of real phenomena, therefore, research management implies the discussion of new ways of looking, interpreting, arguing, writing, but mainly it must recognize that there isn't any method that can capture all the subtle variations of human experience (Denzin & Lincoln, 2012).

In this sense, currently the management and practice of research provides for the complementarity of rationalities in which it is possible to assume the qualitative logic aware that its ontology corresponds to a relative, interpretive and emergent realism, whose epistemological status makes the generation of knowledge possible through critical, reflective, dialogic, dialectical discussions, that is, through intersubjective relationships where the understanding of the lived experience is privileged.

At the same time, assuming an investigative management based on quantitative rationality requires being aware that the practice is based on currents of thought that favor the objectivity, mathematical analysis, and deduction of knowledge. Hence, various studies value the complementarity of qualitative and quantitative rationalities in order to promote the reflective and critical nature of research, a complementarity that provides intellectual elements of nexum and action favorable to the scientific work of the various disciplines (Becerra, 2020; Nizama & Nizama, 2020).

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From this perspective. research management starts from the ontological reality of the phenomenon that is studied to decide the route or mapping to trace. On the one hand, if it assumes a qualitative rationality, management is based on the notion of an alternative paradigm (Kuhn, 2004) characterized by being naturalistic. phenomenological. humanistic, oriented towards the discovery and interconnection of the phenomena it studies through multi-methods and multitechniques that aim to discover the meaning of human actions and social practice; This means that qualitative research aims to discover and reveal the composition of phenomena in natural conditions (Heidegger, 2009).

On the other hand, managing based on quantitative rationality implies assuming a paradigm based on what is correct and governed by a model or pattern. This is how, investigative management in these times of crisis and uncertainty requires open thinking from the researcher, in order to achieve clarity and epistemological and methodological understanding that allows the researcher to integrate and/or complement logics in correspondence with the nature of the phenomenon under study. For Granados (2016), achieving comprehensive knowledge of the phenomenon is possible through epistemological multi-method positions that involve qualitative-quantitative procedures.

This complementarity of rationalities in investigative management is due to the fact that reality is changing and shows a complex behavior of the physical, social, environmental, and political phenomena that comprise the current universe, therefore, it is difficult to talk about objective knowledge, probabilities, and certainties; It is time to open a dialogue of science considering not only Cartesian logic, but also thinking about the implications of the quantum physics of Schrodinger, Heisemberg, Prigogine, Capra, Morin, among other authors who show significant contributions with scientific discoveries of the last decades. These theoretical and philosophical orientations involve the human being in the evolutionary dynamics of the universe, its subjective

Licencia de Creative Commons Reconocimiento-NoComercial- CompartirIgual 3.0 Unported. http://creativecommons.org/licenses/by-nc-sa/3.0/deed.es_ES instance is recognized; This is the subjective self who shares objective and universal aspects through its relational dynamics with other beings.

Establishing the meeting point of these two epistemic - scientific horizons leads to assuming a hologrammatic vision of the universe that allows the understanding and distinction of reality by combining the binomial of action reason - intuition; that is to say, objectivity – subjectivity, giving way to the consolidation of new paradigms or rationalities according to the growing complexity of the current universe. A meeting point between both poles that leads to a kind of metamorphosis of science and epistemology that are appropriate to understand the challenges that society faces in this hectic and heterogeneous era.

In this regard, Najmanovich (2008) raises the need to fully enter the new territories of thought, "presenting new cartographies of the world of contemporary knowledge and emphasizing the importance and exploring the implications of the new ways of mapping" (p.11). Hence, in this article, to propose a management of research in times of increasing complexity as the current world is characterized, which allows to trace new routes or maps. It is an invitation to rethink science and the way of doing science, considering the different methods of production and validation of knowledge; as well as its relationship with the collective world that generates and inhabits it.

Based on the aforementioned, in this article positions have not only been exposed in relation to the spell of the method in scientific research as an inherited conscience that limits the construction of new cartographies, but rather the objective is to reflect on the epistemic and theoretical foundations that lay the foundations of the rationalities required to manage research with new methods of cartographies adjusted to the created reality. The study is approached from the documentary review (Reyes-Ruiz & Carmona, 2020). of significant theories that mark the advance towards the consideration of aerial views on new epistemes that are currently under debate

and that lead to the production and validation of scientific knowledge from other ways of mapping adjusted to the growing complexity and challenges facing the heterogeneous society of this contemporary age.

1. Methodology

The research is carried out through the exhaustive and in-depth review of texts, articles, book chapters, thesis, as sources of bibliographic information related to the visions that epistemically and methodologically guide scientific work. Therefore, it is part of documentary research studies using content analysis and summary sheet as collection techniques, guaranteeing the logical order of the information extracted from the sources consulted. Its central purpose is to conduct the bibliographic review, relating the data that comes from the different sources, in order to provide a panoramic and systematic vision on the topic that is developed (Barraza, 2018).

In terms of authors like Martínez (2004); and Teppa (2012), documentary or bibliographic research consists of a systematic, in-depth, and exhaustive review of the most important literature on the event being studied based on established criteria and with clear purposes that outline the path of this research. For the purposes of this article, the defined criteria are adjusted to the procedure used to develop the research, beginning by defining its scope or purpose by reflecting on the epistemic foundations that lead the research along paths of increasing complexity; continuing with the registration of the consulted sources that allow fixing the interpretations that the authors make to consolidate and build the manuscript.

2. Results and discussion

The trend in the management of research in the social and human sciences currently leads to building knowledge from the meanings generated during the daily life of the subjects, it is the product of thinking and acting marked by lived experience; this indicates that knowledge is produced by the apprehension of the thrown meaning, (Brito, 2019; Álvarez, 2020; Sandoval, 2022).

However, the inheritance obtained from modernity is associated with the conception of "knowledge as the internal reflection in the subject of the external world, which was supposed to be objective and independent" (Najmanovich, 2008, p.15); inheritance that is based on methodical dualism through the subject-object relationship as a way of approaching reality, leading to polarization and exclusion when thinking of two poles absolutely independent of the other. From this point of view, the author refers, it is impossible to think about the links, the mutual affectation, the exchanges that take place during the manworld relationship; an obvious dynamic that classical, traditional science has long made invisible.

The world is facing an inheritance between two types of knowledge and action, symbolic/mythological. one the other empirical/technical/rational that has become a relationship problem, without taking into account that the two types coexist (Granados, 2016), which by being in constant interaction create a kind of interdependence with each other and what is most important "any relinquishment of empirical/technical/rational knowledge would lead humans to death, any relinquishment of their own fundamental beliefs would disintegrate their society" (Morin, 2006, p.168).

Interdependence of knowledge that is created when the mythological is conceived not as from the outside that becomes only a poetic expression, superstition, but as a truth lived from the interior of the being; thus, it is not a matter of assuming the relationship between myth and logos as antagonism because its notion becomes obscure; it is a matter of seeing their complementarities and interferences as ways of thinking of man and acting in the world.

It is in modernity where the ability to observe the world objectively comes to life,

that is, regardless of the look of the subject itself, it was dedicated to total knowledge, an absolute truth, privileging a universe independent of the thought that is thinking about it (Hernández y Coello, 2020). It is about a representationalism that only admits isolated worlds, leaving reflection aside, whose existence has been disturbing and at the same time unacceptable, leading to a kind of blindness of knowledge (Morin, 2006); therefore, a reflective thought is necessary that provides the opportunity to question to make visible the territory of thought and the dimensions on which knowledge is built, expanded, reformed or reconfigured.

It should be noted that science, in its eagerness to predict and control obvious events and processes with indomitable variables, assuming that with the progress towards the construction of knowledge and temporal evolution it will manage to control and predict its behavior at some point. However, Bateson (2006) emphasizes that the divergent sequences of the universe are unpredictable, therefore, "the explanation must always be born from the description, but the description from which it is born will always, necessarily, contain arbitrary characteristics" (p.51).

This controllable and predictable character, according to the referred author, is possible only when the components are to each other like the member to the class, like the thing named to the name, that is, are predictable when the sequences of phenomena are convergent because the descriptions of their events refer to the behavior of huge multitudes or classes of individuals.

In this sense, thinking about science from the perspective of complexity is thinking about linking dynamics, interactions, entanglements, uncertainties, non-linear behaviors, bifurcations; but at the same time, in new ways of doing science, mapping. It is time for researchers to choose to work from a complex approach, facing the challenge of "generating a conception of knowledge in which theory is not divorced from praxis, the affects of thoughts, or the subject of the ecosystem" (Najmanovich, 2008, p.21). In this way, it is

Licencia de Creative Commons Reconocimiento-NoComercial- CompartirIgual 3.0 Unported. http://creativecommons.org/licenses/by-nc-sa/3.0/deed.es_ES possible to give meaning to the management of research with ways of knowing, legitimizing and sharing knowledge to enrich the territories of creative and productive thought that allow us to experience the world, co-construct it in interactions through conceptual instruments and new tools.

Consequently, complexity from the sciences is a form of questioning and interaction with the world, it provides a style of inquiry or dialogue with nature (Prigogine & Stengers, 2004) and a rigorous practice that is not limited to standards or a priori models; This is how, the parceling, limits and fences, captures reality and frame it in a model are not characteristic features of this approach. This new look implies a change in the global treatment of knowledge that requires giving up the conception of the external world independent of the subject, since knowledge is configured in the world by those who inhabit it and dynamize it.

It is an awakening of the methodical spell to map new flights and create scientific itineraries from multidimensional, multimethod and multi-technique approaches that allow the construction of a style of inquiry characterized by exploration, by the creation of a conceptual landscape to reconfigure the cognitive landscape. This means a change in the notion of the world, of that world conceived in its origins almost complete, static, whose details did not change the global aesthetics of the universe, and recognizing the linking, enveloping, uncertain and unthinkable dynamics of reality that has allowed develop theories such as relativity, quantum, nonequilibrium thermodynamics or irreversible processes and chaos theories to shatter this spell.

In the face of the metamorphosis of science Prigogine & Stengers (2004), new ways of mapping are sought through a management that makes it possible not only to describe convergent and divergent phenomena or behaviors, but also to find their meaning, purpose, coherence and its relationship with human knowledge. It is not about scientific univocity, which "occurs at the level of

definition or description (the equation), and also at the operational level, but not at the level of meaning" (Viguri. 2019, p.96); since the meaning is associated with the interpretation that, moreover, is discursive, philosophical and includes a critical and reflective component that begins by visualizing, imagining or devising in some way what a mathematical formula, an algorithm or the empirical reality being addressed in order to, finally, perform intellectual operations of a qualitative nature that include sorting, categorizing and classifying.

In this order of ideas, research management is built by identifying a problem to give it a methodological treatment, a problem that is visualized by observing, recognizing and understanding that there is a divergent behavior with the theoretical framework or worldview, "only when we have detected a problem, we proceed to look for methods to solve it" (Viguri, 2019, p.98). But, according to the author, it is pertinent to point out that there is no formula to select the methods applicable to any problem and, what is most interesting, "if there were, we could ask: and according to what method was the general method of method construction?" (p.98).

This question invites us to reflect on the demystification of a unique method as an inheritance that has prevailed in the debate of the scientific community and that currently comes to life in the face of the uncertain. unstable, and complex reality of the man-world relationship. Today it is proposed that selecting the practical method for solving a problem is mainly an ontological matter, it is necessary have a theoretical pre-understanding to of the problem and of the discourse on its dimensions; Therefore, "there is no a priori method to identify the truly relevant aspects of a given problem" (Viguri, 2019, p.99). Hence, the problem's ontology or worldview is key to understanding the problem and seeking the appropriate method for reality, which is why it precedes the method.

Given the above, it can be stated that the divergent realities are not framed in an investigative management focused on a single method, its dynamic, multiform and indomitable character leads to think not in probabilities but in possibilities of occurrence, so, aerial views should be considered and draw up new cartographies that allow conducting realities or phenomena with complex, nonlinear, irreversible behaviors and with constant bifurcations along paths or routes of complementary articulation of qualitative and quantitative methods appropriate to contexts of interpretation through systematic forms, that is, methodical. It is time to wake up from the spell of the method, to believe that the path that leads to knowledge has no obstacles with errors, that there are no moments of confusion, to navigate through the mists of meaninglessness, discarding the untamed and unthinkable dynamics of the universe.

Conclusions

Modern science was born from hybridization of empiricism the and mathematizing rationalism, surrounding the reality studied in a kind of laboratory. The idea of the a priori method prevailed, without considering the ontology of the phenomenon studied and building a neutral and impersonal discourse based on dualism to justify the objective nature of science. This perspective creates a methodical illusion that denies reality itself, by using linear, straight flight itineraries that lead to dead-end roads before paths that fork, which has led, sharing the phrase of Najmonovich, (2008), to "combing a disheveled story" (p.80).

It is these reflections where the divergent is recognized, the complexity of the man-universe relationship is accepted, which allow us to rethink walking and recognize that uncertainty, instability, indomitable variables, and tangles are not negative aspects, since the understanding of this ontology or worldview comes to mean the starting point for the management of scientific work to look at the range of methods and select the one that is most appropriate in order to provide a solution

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to the problem being studied. It is time to leave fixed territories, dethrone traditional authority and navigate multiform, changing and unexpected seas and move towards knowledge construction processes with an open mind that recognizes simplicity, but also diversity; that is, the complexity.

In this way, it is possible to think and act from the complementary articulation of scientific logics and/or rationalities, which lead to an epistemological turn that invites to combine pure reason with social knowledge, monology with multi-methods, analytical thought with polyvocal thought. It is from this point of view that progress will be made in the construction of meaningful knowledge located in contexts characterized by non-linear and emergent dynamics; it is to assume the epistemological transformation and a paradigmatic change to wake up from the methodical spell; Only in this way is it possible to manage research in these times of increasing complexity with new forms, processes and procedures that allow the world to be experienced.

Bibliographic references

- Álvarez, A. (2020). Clasificación de las investigaciones [Investigación de pregrado, Universidad de Lima]. <u>https://repositorio.ulima.edu.pe/</u> handle/20.500.12724/10818
- Barraza, C. (2018). Manual para la presentación de referencias bibliográficas de documentos impresos y electrónicos. Universidad Tecnológica Metropolitana.
- Bateson, G. (2006). *Espíritu y naturaleza*. Amorrortu Editores.
- Becerra, K. (2020). Investigación cualitativa crítica y derecho: análisis de su rol en la academia chilena y un estudio de caso. Revista Pedagogía Universitaria y Didáctica del Derecho, 7(1), 149-

Licencia de Creative Commons Reconocimiento-NoComercial- CompartirIgual 3.0 Unported. http://creativecommons.org/licenses/by-nc-sa/3.0/deed.es_ES

176. <u>https://doi.org/10.5354/0719-5885.2020.55375</u>

- Brito, J. (2019). *Fenomenología y cotidianidad* [Artículo de divulgación, Universidad Santo Domingo de Guzmán]. <u>http://</u> <u>repositorio.usdg.edu.pe/handle/</u> <u>USDG/223</u>
- Denzin, N., & Lincoln, Y. (2012). Manual de Investigación Cualitativa. Vol I: El campo de la Investigación Cualitativa. Editorial Gedisa
- Feyerabend, P. K. (1975). Popper's objective knowledge. In P. K. Feyerabend (Ed.), *Problems of empiricism: Philosophical papers* (Vol. 2, pp. 168-201). Cambridge University Press. <u>https://</u> doi.org/10.1017/CBO9781139171588
- Granados, O. (2016). O enfoque qualitativo. Um complemento da racionalidade ou uma variante do enfoque multimétodo em investigação científica? SAPIENTIAE: Revista de Ciencias Sociais, Humanas e Engenharias, I(2), 185-205. <u>https://publicacoes. uor.ed.ao/index.php/sapientiae/article/ view/14</u>
- Heidegger, M. (2009). *El ser y el tiempo*. Fondo de Cultura Económica
- Hernández, R. A., & Coello, S. (2020). El paradigma cuantitativo de la investigación científica. Editorial Universitaria (Cuba).
- Kuhn, T. (2004). La estructura de las revoluciones científicas. Fondo de Cultura Económica.
- Martínez, M. (1997). El paradigma emergente: Hacia una nueva teoría de la racionalidad científica. Editorial Trillas.
- Martínez, M. (2003). Sobre el estatuto epistemológico de la psicología. *Polis. Revista Latinoamericana, 4*, 1-10. <u>https://journals.openedition.org/</u> <u>polis/7188</u>

- Martínez, M. (2004). *Ciencia y arte en la metodología cualitativa*. Editorial Trillas.
- Morin, E. (2006). *El método 3. El conocimiento del conocimiento*. Ediciones Cátedra.
- Najmanovich, D. (2008). Mirar con nuevos ojos: Nuevos paradigmas en la ciencia y pensamiento complejo. Editorial Biblos Publisher.
- Nizama, M., & Nizama, L. M. (2020). El enfoque cualitativo en la investigación jurídica, proyecto de investigación cualitativa y seminario de tesis. *Vox Juris*, 38(2), 69-90. <u>https://doi. org/10.24265/voxjuris.2020.v38n2.05</u>
- Prigogin, I., & Stengers, I. (2004). La nueva alianza. Metamorfosis de la ciencia. Alianza Editorial.
- Reyes-Ruiz, L., & Carmona, F. (2020). La investigación documental para la comprensión ontológica del objeto de estudio [Investigación doctoral, Universidad Simón Bolívar]. <u>https://</u> hdl.handle.net/20.500.12442/6630
- Sandoval, R. (2022). Una epistemología para investigar desde la creación de la cotidianidad. Reseña Bibliográfica: Valiente, Silvia (2020). Habitar

las fronteras del pensar desde la cotidianeidad v la memoria. San Fernando del Valle de Catamarca, Argentina: Editorial Científica Universitaria Secretaría de Investigación v Posgrado, Universidad Nacional de Catamarca. 227 páginas. ISBN: 978-987-661-363-7. Revista Latinoamericana de Metodología de las Ciencias Sociales, 12(1), e112 http://sedici.unlp.edu.ar/ handle/10915/147449

- Teppa. S. (2012). Análisis de la información cualitativa y construcción de teorías. Ediciones GEMA.
- Vallejo, A. C., & Gómez, J. A. (2011). Pensar y sentir desde la unidad, la diversidad y el movimiento. Interconexiones mente-cerebro-universo: ¿Un diálogo posible entre Occidente y Oriente? Universidad Santo Tomás.
- Viguri, M. R. (2019). Ciencias de la complejidad vs. pensamiento complejo. Claves para una lectura crítica del concepto de cientificidad en Carlos Reynoso. *Pensamiento. Revista de Investigación e Información Filosófica*, 75(283), 87-106. <u>https://doi.org/10.14422/pen.v75.</u> i283.y2019.004