Epistemological Paradigms In The Social Sciences: A Guide For Researchers

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Abstract

This article presents a scholarly debate on the main paradigms discussed by researchers and explored in the epistemological landscape of social and management sciences from which a researcher can draw inspiration to position his/her epistemological status, namely: positivism, constructivism and interpretivism. Positivism is a paradigm based on a rigorous scientific approach to understand the world. Researchers who adhere to this paradigm attempt to establish universal laws that explain social phenomena. Constructivism, on the other hand, assumes that reality is constructed by individuals through their social interaction. Researchers adhering to this paradigm seek to understand how individuals make sense of their social environment. Finally, interpretivism is a paradigm that relies on interpreting individuals' meanings and motivations in order to understand their behaviors. Researchers adhering to this paradigm seek to understand how individuals perceive their social environment and how it influences their behaviors. These paradigms serve as a reference point for researchers to position their epistemological status. They also aim to derive a certain type of reasoning that a researcher chooses to defend his or her thesis, accompanied by an appropriate research methodology to carry out a good construction of knowledge on which a research project can be based. In other words, the article aims to help researchers justify and prove the scientific validity of their research.

Keywords: epistemology, paradigm, positivism, constructivism, interpretivism, research method.

Introduction:

In the management sciences, for a researcher, the development of epistemological reflection is an essential challenge for the successful implementation of a research project. This reflection not only guides the researcher in developing his/her approach, ensuring accuracy and coherence, but also helps in justifying the validity and legitimacy of his/her work (Perret and Séville, 2003). To achieve this, the researcher needs to control the development of his work.

Epistemological positioning is an expected element of a researcher's thesis. It is a laborious exercise that requires a reflective effort. This reflexivity usually involves looking back and rereading one's own work, which requires a degree of wisdom that must be carefully matched with the initial state of the work.

In general, any scientific research that aims to understand or explain reality is based on an epistemological position and a specific research methodology. Perret and Séville (2003) stated, "*through epistemology, we can know what science is by discussing the nature, method, and value of knowledge*". In particular, epistemology aims to clarify and purify the conception of knowledge on which a research paper is based. The choice of epistemology, as well as the type of argumentation and research method, are indispensable elements in establishing and proving the scientific validity of a research paper.

The management research method distinguishes three main families of epistemological paradigms that guide research and allow a researcher to position his or her approach in the construction of a research project. These paradigms are mainly positivism, constructivism, and interpretivism (Thiétart, 1999). The aim of this article is to discuss the main choices a researcher can make to determine his/her epistemological status, derive his/her mode of reasoning and finally choose the appropriate research method, with the main objective of providing justification and scientific rigor to his/her research project.

Discussion

1. Overview of Epistemological Paradigms

In general, the ultimate goal of any research is to find possible answers to a central problem in order to increase knowledge about a particular topic. The approach that the researcher chooses to achieve his goals depends on the paradigm to which he adheres. In other words, all research can be classified into different paradigms of different orders that overlap with each other (Savall and Zardet, 2004).

A scientific paradigm is a system of beliefs that corresponds to what area of science it researches, and how it researches it (Avenier and Gavard-Perret, 2012). The main epistemological paradigms that researchers should focus on in their research are positivism, constructivism, and interpretivism.

In discussing the epistemological paradigms of scientific research, it is necessary to distinguish between three key concepts, namely ontology, epistemology, and methodology. In this passage written by (Gaudet and Robert,

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2018), the authors provide elements that serve to clarify and distinguish each concept: "

> *Ontologies refer to what we think is real, while epistemologies are what we think we can know about our world. Methodologies encompass our construction of the research problem and the associated tools and analyses we use to grasp the object of research*."

The different research paradigms in the literature are divided into two main categories: positivist (essentialist) and constructivist (non-essentialist) approaches (Gavard-Perret et al, 2012, Thiétart et al, 2014). Paradigms with a realist orientation such as logical positivism, post-positivism, and critical realism formulate an essentialist response and assume that reality exists independently of the contingencies of knowledge, observations, and representations. Conversely, paradigms with a constructivist orientation such as interpretivism, postmodernism, and constructivism offer a non-essentialist answer to the ontological question (Thiétart et al, 2014). In the same perspective, Gaudet and Robert (2018) stated,

> "*the realist thesis is based on the assumption that reality exists outside our perception. In contrast, the constructivist argument asserts that reality is constructed, at least in part, from our perceptions*."

1.1. The Positivist Paradigm

Gavard-Perret et al, (2008) mentioned that the positivist paradigm is the best known, as it has been the subject of numerous developments in the methodological literature, particularly in social science research. It is a paradigm that has its foundations in the exact sciences. In this model of thought, we find a group of researchers from the management sciences who have contributed to its development. For positivists, reality exists in itself, outside and independent of the researcher, and they focus mainly on capturing it. The aim of positivist researchers is first to illuminate the laws that impose themselves on actors. Then they aim to grasp external reality and the mechanisms that condition it, as well as the laws that govern it. However, the process of creating knowledge involves the researcher identifying discrete elements and conceptualizing these elements in order to model them.

The value of knowledge produced in the positivist paradigm is to be judged by a set of criteria. These criteria condition the validity of the research. However, there are precise and universal criteria that apply to all sciences and that make it possible to distinguish scientific knowledge from non-scientific knowledge. These are above all verifiability, confirmability, and refutability. In this sense, the positivist paradigm defines three conditions for the validity of the knowledge produced: verifiability, confirmability, and refutability. Blaug (1982) explains that according to the first condition, "*a synthetic statement makes sense only if it is empirically testable*", a hypothesis is meaningful only if we can verify it empirically. The second condition advocates the idea of considering a statement as probable rather than generally true (Carnap, 1962). This concept fuels uncertainty

about the ability of knowledge to prove truth, and researchers can only confirm it through experimentation or the results of other theories (Hempel, 2012, Thietart, 2014). For the third condition that is falsifiability expresses the fact that a theory can only be affirmed if its falsity can be proven, which is impossible in the case of affirming a theory if it is true.

1.2. The Positivist Position

In the positivist position, or rather in modified positivism within post-positivism, reality and objectivity are not seen as absolute. For positivist positions, errors are acceptable, and they consider the results obtained to be probable. Indeed, post-positivism holds that we cannot fully know and understand reality as it is. Reality remains incompletely graspable when we move from a "naïve" realism to a "critical" realism. Consequently, the results obtained will only probably be "true" and not absolutely "true" (modified dualism). The objectivity of the researcher is thus rather moderate and not absolute. Whereas, in positivism the essence of knowledge is captured by the validation of hypotheses based on universal laws, post-positivism adds the criterion of falsification, insofar as the essence of knowledge is confirmed by non-falsified hypotheses that are probably facts and laws of universal scope.

Post-positivists criticise inductive reasoning, which according to Devaux et al, (1973) can lead researchers astray, and recommend instead the hypothetico-deductive method. Post-positivists rely on 'confirmation' through various failed 'disconfirmation tests' to validate knowledge, rather than the empirical tests advocated by positivists. There are two schools of thought in post-positivism:

a. **Scientific realism**: For scientific realists, scientific knowledge can be true, but not with absolute precision and certainty. Their regularity and truthfulness must be justified by empirical results obtained by refutation. Hunt and Hansen (2008) cited in (Gavard-Perret et al, 2012) lists four main tenets of scientific realism, namely:

1) The world exists independently of what one perceives and the representations one makes of it,

2) the goal of science is to develop adequate knowledge about the world which is uncertain,

3) the instruments that test the truthfulness of a given body of knowledge are fallible,

4) and theories that attempt to explain observable phenomena can rightly rely on unobservable concepts.

b. **Critical Realism:** The foundations of critical realism have been set out in detail in the works of Bhaskar and his disciples. This paradigm is often presented as a post-positivist alternative to positivism and constructivism (Smith, 2006). According to critical realists, there are three domains of reality behind any produced knowledge that need to be known and explored: first, a real domain that refers to the laws and rules that govern the actual

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domain, that is the reality under investigation, and finally, an empirical domain that refers to human visions and perceptions of events. The induction/abduction/deduction loop is the most appropriate methodological basis for this flow.

Critical realism argues that pluralistic research methods can be advocated as long as they take into account the ontological status of the object of study (Danermark et al., 2019). Therefore, qualitative and quantitative methods can be used, and a combination of these methods is often preferable (Næss, 2015).

1.3. The Constructivist Paradigm

In the social science literature, there are mainly two forms of the constructivist paradigm: one is conceptualized by educational researchers such as Lincoln and Guba (1986) and Guba (1998). While the other is called 'Radical' following the works of Piaget (1967), conceptualised by Glasersfeld (1988), Von Glasersfeld (2001) and theorized by Le Moigne (1995, 2001, 2007). These two constructivist epistemological paradigms advocate similar epistemological construction hypotheses, but take completely different positions on the ontological level.

Glasersfeld (1988) calls 'radical constructivism' is considered 'radical' because it dispenses with conventions and proposes a theory of knowledge in which knowledge does not express an ontological 'objective' reality. Instead, it aims exclusively to create and organise a universe constructed through our experiences.In the radical model, knowledge production aims not at a standard of truth but at a standard of feasibility that is through reprogrammable intuition. The radical constructivist paradigm is based on three basic assumptions derived from the work of Von Glasersfeld (2001), Le Moigne (1995, 2007), and Riegler (2001).

a. The first hypothesis focuses mainly on the status of knowledge and assumes what people can know. This hypothesis states that the knowledge that an individual can perceive beyond doubt is the knowledge that comes from his or her own experience. It explains why radical constructivism assumes the existence of a reality without affirming or denying the existence of a reality per se. Above all, it supports the idea that an individual cannot fully comprehend a real world beyond the experiences he or she has with it (Von Glasersfeld, 2001).

b. The second phenomenological hypothesis states that the perceiving subject plays a decisive role in the production of knowledge. We only perceive representations through which a phenomenon is distinguished. And as (Martinet, 1990) states, this view assumes that the world is grounded and that we can only reflect or construct reality. The world requires explanation and interpretation, and therefore the knowledge generated is subjective and contextual.

c. The third teleological hypothesis states that the construction of scientific knowledge follows a process before it is transformed into a result. During

this process, the human mind does not readily separate the known from the knowable (Piaget, 1967). In contrast to the positivist, post-positivist, and critical realist epistemological paradigms, and in line with the constructive assumptions of this paradigm, the knowledge developed here does not aim to show how reality can unfold but to advance intelligibility in the processes of human experience.

1.4. The Interpretivist Paradigm

The interpretative paradigm focuses on the interpretation of interaction, discourse, and the process of social practice in order to better understand the reality it seeks to explain. According to Thietart (2014), this paradigm primarily aims to generate knowledge through the interpretation and exchange of shared assumptions about the subjective and contextual nature of knowledge and the phenomenological nature of reality. The assumptions of constructivism are also integrated into interpretivism, as they share the same view of how understanding and perception emerge from individual experience and lived reality. In other words, according to interpretivism and radical constructivism, knowledge is constructed through personal experience, and reality is perceived subjectively.

The interpretivist paradigm is based is on four hypotheses- The first hypothesis states that what is considered knowable is lived experience, which according to Husserl (1970) is also called the "lifeworld". The second hypothesis states that the knowledge a subject acquires about a situation is inseparable from the situation itself, as well as from the subject deriving his or her lived experience from it.The third hypothesis postulates the possessive and determining force of intention in the experience of the world and thus in the production of knowledge (Sandberg, 2005, Yanow, 2006). With the fourth hypothesis, the interpretive paradigm differs from the pragmatist-constructivist epistemological paradigm.

The main difference between radical constructivism and interpretivism lies in their ontological assumptions. According to (Gavard-Perret et al, 2012), interpretivists reject the idea of an objective reality independent of the observer and formulate restrictive ontological hypotheses, whereas radical constructivism does not reject the existence of an external reality beyond the perception and attention of the researcher.

Having clarified the different types of paradigms, we can note that the positivists aim to discover and establish immutable universal laws, while the interpretivists try to grasp the meaning given to reality. The constructivists, on the other hand, seek to generate knowledge through proactive construction.

Girod-Seville and Perret (1999) present a table as a comparative synthesis of the characteristic features of the different epistemological viewpoints (cf. table).

Table: Comparative summary of the epistemological positions of the three paradigms

	Positivism	Constructivisme	Interpretativism
What is the status of knowledge?	Realistic hypothesis	Relativistic hypothesis	
	The object of knowledge has its own essence.	The essence of the object cannot be reached	The essence of the object cannot be reached (Moderate constructivism) or does not exist (radical constructivism).
	Deterministic hypothesis	Intentionalist hypothesis	
The nature of 'reality	Independence of subject and object. The world is made of necessities.		Dependence of subject and object. The world is made of possibilities.
How is knowledge generated? The path to scientific knowledge	- The discovery - Research formulated in terms of "for what causes...". - Privileged status of the explanation	Interpretation Research formulated in terms of "for what motivations of the actors...". Privileged status of understanding	The construction Research formulated in terms of "for what purposes…" Privileged status of construction
What is the value of knowledge? Criteria for validity	- Verifiability - Confirmability - Refutability	- Ideography - Empathy (revealing the lived experience of the actors)	- Suitability - Teachability

Source: (Girod-Seville and Perret, 1999)

The different points at which these three paradigms diverge are better explained by their conception of the type of knowledge produced, the process of knowledge production, and the value of knowledge.

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2. Modes of Reasoning
2.1. Inductive mode versus deductive mode
　　The first mode, which starts from existing theoretical knowledge in order to validate it with empirical data, is deductive and confirmatory; the second mode, which starts from empirical data and establishes conceptual categories and relationships, is inductive and generative. In research work, the two modes often complement each other.

　　The deductive mode is a reasoning process that starts with one or more statements (premises) to reach a logically certain conclusion Grawitz (1996) cited in (Thiétart and al, 2014).

2.1.1. Delineating a specific research problem
Narrowing down a specific research problem is not an easy task. It is mainly a matter of identifying gaps or difficulties in the organization or coherence of scientific knowledge. Gauthier (2009) lists some specific research problems from the French-language literature that can serve as a guide:

a) The total or partial absence of knowledge in relation to any element of the answer to the general question,
b) the conclusions drawn from previous research cannot be generalized to a particular situation,
c) some variables were not taken into account in the research,
d) there is uncertainty about the conclusions of a study because of methodological problems,
e) there are contradictions between the conclusions of research studies on the same topic,
f) and a specific research problem may arise from the fact that an interpretation, model or theory cannot be verified.

2.1.2. The steps of problematization
In the deductive mode and from a confirmatory perspective, the problem is developed by using concepts from the scientific literature, which are fleshed out by a specific research question. This question enables the confrontation of this theoretical construction with a specific reality (Gauthier, 2009).Problematization is a multi-stage process (*Cf.* figure 1). It involves first selecting a research topic, then formulating a general question based on the scientific literature, identifying a specific problem, and deriving a specific research question from it (Gauthier, 2009).

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Figure 1: Problematization according to a deductive logic
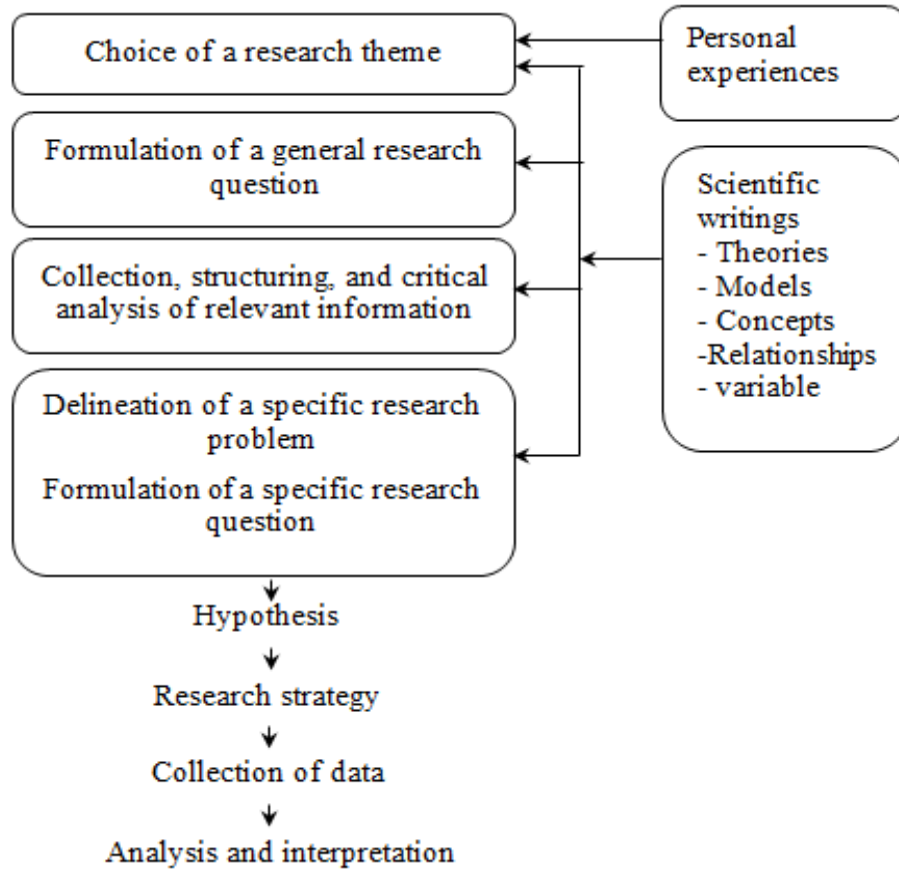
Source: adapted by the authors, (Gauthier, 2009)

2.2. Inductive mode

Induction is a type of reasoning that moves from the particular to the general in a probable manner. It involves the generalisation of properties that have been empirically observed over a large number of cases or representative samples (Catellin, 2004).

### 2.2.1. The provisional delimitation of a specific research problem

In an inductive mode, specific research problems arise from a concrete situation chosen by the researcher. This situation is an interesting phenomenon that may or may not have already been the subject of research, and can be described and understood on the basis of the meanings and representations given by the participants. Based on this concrete situation, the researcher formulates a preliminary research problem, asks one or more general research questions, and then chooses an appropriate methodology.

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2.2.2. The Steps of problematization

The specification of the problem in an inductive mode involves several stages. This process (*cf*. figure 2) begins with (i) formulation of a preliminary research problem based on a situation involving a phenomenon of particular interest, then (ii) the formulation of a question that allows for the choice of an appropriate methodology, followed by (iii) the development of interpretations based on data collection and the inductive analysis of these data, to continue with (iv) the iterative reformulation of the problem and/or research question based on the insights gained during data collection and the preparation of the analysis (Gauthier, 2009).

Figure 2: Research process according to inductive logic
Source: adapted by the authors (Gauthier, 2009)

### 2.3. The abduction or 'theoretical re-description':
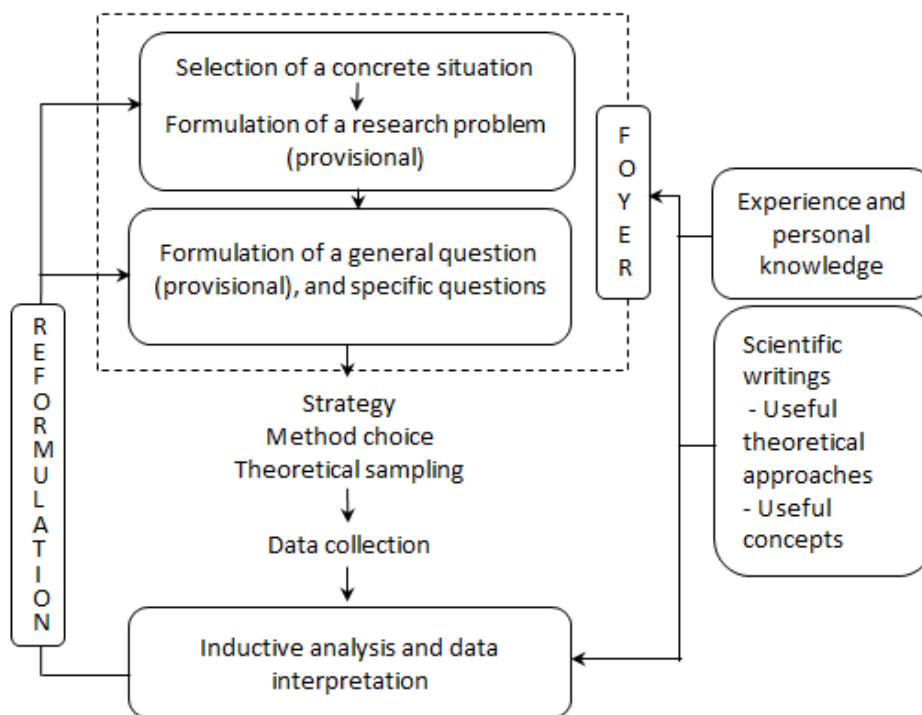
Abduction is often understood as a dialectical movement between empirical data and theory. In attempting to explain an empirical event, this event is linked to theory, which in turn leads the researcher to a new interpretation of the event (Bergene, 2007). To use the terminology of Catellin (2004), abduction refers to "*a form of reasoning that allows us to explain a phenomenon or observation from certain facts. It is the search for causes or an explanatory hypothesis*". Abduction is therefore not independent of deduction and induction. In this sense, Catellin

(2004) states that "*the process of understanding that leads to knowledge actually links them closely: Abduction provides deduction with its premise or hypothesis, deduction draws certain consequences from it, and induction empirically tests the validity of a possible rule*".

The following figure summarizes the different approaches and models developed (*cf.* figure 3). It should be noted that the choice of methodological framework undoubtedly depends on the type of knowledge the researcher intends to construct. This choice also depends on the research questions formulated and the maturity of the theories mobilized.

Figure 3: Modes of reasoning and scientific knowledge
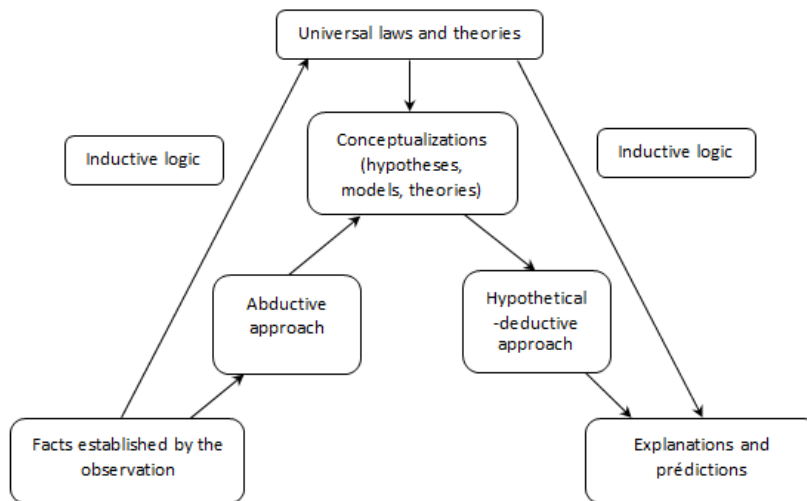
Source: (Thiétart et al, 2014)

3. Qualitative Versus Quantitative Approach

Researchers' views differ widely on the question of methods, data collection, and analytical tools. In general, quantitative research uses technical, codified, and fixed procedures, while qualitative research, on the other hand, prefers variable procedures (Hlady Rispal, 2002).

3.1. Qualitative approach

Qualitative approaches are extremely diverse, complex and nuanced (Braun and Clarke, 2006), with aims revolving around three elements (Hlady Rispal, 2002): (i) the pursuit of understanding, (ii) the analysis of processes, and (iii) the discovery of recursive causalities. In the same vein, Thiétart et al., (2014) states that "*the role of the qualitative approach is not to generalise an existing theory*".

This distinction between the deductive qualitative approach and the inductive qualitative approach is well established in the literature (Braun and Clarke, 2006; Hlady-Rispal, 2015). Indeed, a theoretical model is defined by a 'deductive qualitative logic', using data from a sample selected in accordance with the variables and laws under study (Hlady-Rispal, 2015). The inductive qualitative approach, on the other hand, places less emphasis on existing theories, as its aim is to develop a theory based on the lived experiences of actors (Hlady-Rispal, 2015). The qualitative approach has many limitations, the most important of which is that it is part of a process to study a specific context (Thiétart et al, 2014). In other words, it does not allow generalisation of existing theories. These limitations in terms of generalisation lead people to attribute more external validity to quantitative approaches (Thiétart et al., 2014).

3.2. Quantitative approach

It is generally accepted that the quantitative approach offers a greater guarantee of objectivity (Thiétart et al, 2014). It is therefore not surprising that the quantitative approach is rooted in the positivist paradigm (Silverman, 1993 cited in Thiétart and al, 2014).

Theory plays a central role in the quantitative approach. As (Hlady-Rispal, 2015) points out, 'the dominant deductive quantitative logic in management science involves the construction of a theoretical model that must be tested against data to verify its accuracy' (Hlady-Rispal, 2015).

Given the high degree of irreversibility, the quantitative approach requires cautions on which the success of the research project depends. Literature on the qualitative and quantitative approaches is abundant, while it is less common on the mixed (hybrid) approach. The following subchapter focuses specifically on the mixed-methods studies conducted mainly within the paradigm of critical realism, which advocates for the qualitative and quantitative approaches on its foundations.

3.3. Hybrid approach: mixed method

The mixed methods approach is a methodology that emerged in its current form in the late 1980s and early 1990s, drawing on work from a range of fields including education, management, sociology, and health sciences. The combination of qualitative and quantitative approaches, that is their complementary and dialectical mobilization, allows the researcher to establish a nuanced dialogue between the observed object of study and the modes of representation (Thiétart et al, 2014).

The two approaches are often combined to achieve specific goals (Johnson and al, 2007 cited in Corbières and Larivière, 2014) state that the combination of qualitative and quantitative methods, including postulates, data collection instruments, analytical and inferential techniques, is usually used to deepen and substantiate findings (Corbière and Larivière, 2020).

The combination of qualitative and quantitative methods is justified by three main objectives. These objectives are:

a) Interpretation of quantitative results based on the results of qualitative methods,
b) generalisation of qualitative results through quantitative methods,
c) and exploring or better understanding a new phenomenon using qualitative methods and measuring its scope, development, causes, and effects using quantitative methods.

Various types of mixed models can be found in the literature. For this article, we adopt the classification of (Creswell and Creswell, 2017), which distinguishes three types of mixed designs: convergent design (single-phase design), explanatory sequential design (two-phase design), and exploratory sequential design (three-phase design).

3.3.1. Convergent model

In this single-phase approach, the researcher collects both quantitative and qualitative data, analyses them separately, and then compares the results to see if they confirm or contradict each other (Creswell and Creswell, 2017). This model is based on the central assumption that qualitative and quantitative data taken together should provide different types of information should yield identical results (*cf.* figure 4).

Figure 4: Convergent design (Single-phase Design)
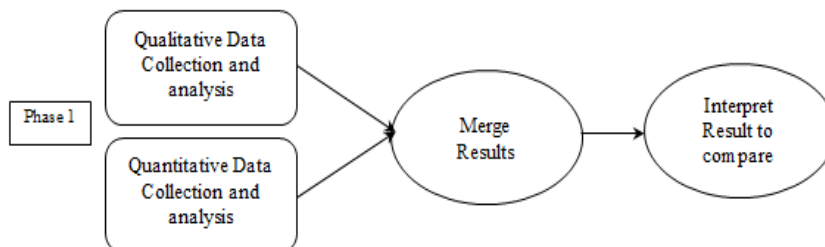
Source: adapted by the authors (Creswell and Creswell, 2017)

3.3.2. Sequential explanatory model

The sequential explanatory model involves two phases of data collection (*cf.* figure 5). In the first phase, researchers collect quantitative data, analyse the results, and then use the results to plan and develop the second qualitative phase (Creswell and Creswell, 2017). The general intention of this design is that the qualitative data further explains the initial quantitative findings. It is therefore important to link or connect the quantitative results to the collection of the qualitative data.

Figure 5: Explanatory sequential design (Two-phase design)
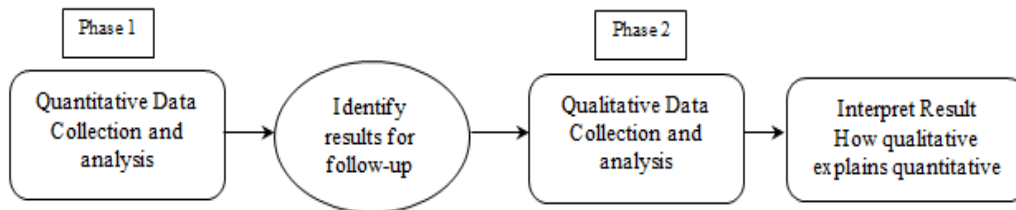
Source: adapted by the authors (Creswell and Creswell, 2017)

3.3.3. Exploratory sequence model

A sequential exploratory mixed-methods approach in three phases is a model in which researchers first explore and qualitatively analyse the data (*cf*. figure 6), then construct a quantitative characteristic to be tested (e.g. a new survey instrument, experimental procedure or variable) and test this characteristic in a third quantitative phase (Creswell and Creswell, 2017).

Figure 6: Exploratory sequential design (Three-phase design)
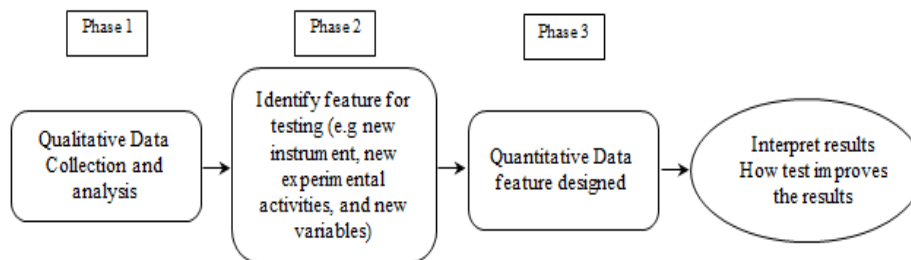
Source: adapted by the authors (Creswell and Creswell, 2017)

Conclusion

This article presents a framework or roadmap that researchers can follow to properly formulate their research question. It also highlights the essential elements of epistemology and paradigms and the type of reasoning required to defend their thesis. We provide an overview of the main paradigms, distinguishing the type of argumentation and methods associated with each epistemological stance. In this way, doctoral students can position themselves appropriately to answer their research questions in line with their research goals and context. Ultimately, this article serves to guide doctoral students toward an appropriate research stance and to explicitly justify their choice.***

References
Avenier, M.-J., and Gavard-Perret, M.-L. (2012). *Inscrire son projet de recherche dans un cadre épistémologique*.

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Bergene, A. (2007). Towards a critical realist comparative methodology : Context-sensitive theoretical comparison. *Journal of critical realism*, *6*(1), 5-27.

Blaug, M. (1982). Des idées reçues aux idées de Popper. *La méthodologie économique, Paris, Economica*, 4-25.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. : https://doi.org/10.1191/1478088706qp063oa

Carnap, R. (1962). *Logical foundations of probability*.

Catellin, S. (2004). L'abduction : Une pratique de la découverte scientifique et littéraire. *Hermès*, *2*, 179-185. https://doi.org/10.4267/2042/9480

Corbière, M., and Larivière, N. (2020). *Méthodes qualitatives, quantitatives et mixtes, 2e édition : Dans la recherche en sciences humaines, sociales et de la santé*. PUQ.

Creswell, J. W., and Creswell, J. D. (2017). *Research design : Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Danermark, B., Ekström, M., and Karlsson, J. C. (2019). *Explaining society : Critical realism in the social sciences*. Routledge.

Devaux, P., Thyssen-Rutten, N., Popper, K. R., and Monod, J. (1973). *La logique de la découverte scientifique*. Editions Payot.

Durkheim, É. (1894). Qu'est ce qu'un fait social. *Les règles de la méthode sociologique. Félix and Alcan. Paris Les Presses universitaires de France. Article numérisé: http://jmtsociologue. uqac. ca/www/projets/ pdf*.

Gaudet, S., and Robert, D. (2018). *L'aventure de la recherche qualitative : Du questionnement à la rédaction scientifique*. University of Ottawa Press.

Gauthier, B. (2009). *Recherche sociale : De la problématique à la collecte des données Ed. 5*. Presses de l'Université du Québec.

Gavard-Perret, M.-L., Gotteland, D., Haon, C., and Jolibert, A. (2008). *Méthodologie de la recherche : Réussir son mémoire ou sa thèse en sciences de gestion*.

Gavard-Perret, M.-L., Gotteland, D., Haon, C., and Jolibert, A. (2012). Méthodologie de la recherche en sciences de gestion. *Réussir son mémoire ou sa thèse*, *2*.

Girod-Seville, M., and Perret, V. (1999). *Fondements épistémologiques de la recherche in Méthodes de Recherche en Management, ouvrage coordonné par Raymond Alain Thiétart, éd*. Dunod.

Glasersfeld, E. von. (1988). Introducción al constructivismo radical. *L'invention de la réalité. Contributions au constructivisme, Paris, Seuil*, 19-43.

Guba, E. G. (1998). *„Competing Paradigms in Qualitative Research" in Denzin, NK and Lincoln, YS (eds.) The Landscape of Qualitative Research : Theories and Issues*. Thousand Oaks, CA: Sage Publications Inc.

Hempel, C. (2012). *Éléments d'épistémologie*. Armand Colin.

Hlady Rispal, M. (2002). La méthode des cas. *Application à la recherche en gestion*.

Hlady-Rispal, M. (2015). Une stratégie de recherche en gestion-L'étude de cas. *Revue française de gestion*, *41*(253), 251-266. *DOI:10.3166/RFG.253.251-266*

Husserl, E. (1970). *The crisis of European sciences and transcendental phenomenology : An introduction to phenomenological philosophy*. Northwestern University Press.

Largeault, J. (1993). *Intuition et intuitionisme*. Vrin.

Le Moigne, J.-L. (1995). *Les épistémologies constructivistes* (Vol. 2969). Presses universitaires de France Paris.

Le Moigne, J.-L. (2001). Pourquoi je suis un constructiviste non repentant. *Revue du MAUSS*, *1*, 197-223. https://doi.org/10.3917/rdm.017.0197

Le Moigne, J.-L. (2007). Sur la méthode topico-critique : Au service de la reconstruction scientifique. *Nouvelles perspectives en sciences sociales*, *2*(2), 13-31. DOI https://doi.org/10.7202/602458ar

Lincoln, Y. S., and Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for program evaluation*, *1986*(30), 73-84. h*ttps://doi.org/10.1002/ev.1427*

Martinet, A. C. (1990). *Epistémologies et sciences de gestion*.

Merton, R. K. (1942). A note on science and democracy. *J. Legal and Pol. Soc.*, *1*, 115.

Næss, P. (2015). Critical realism, urban planning and urban research. *European Planning Studies*, *23*(6), 1228-1244. https://doi.org/10.1080/ 09654313.

Perret, V., and Séville, M. (2003). Fondements épistémologiques de la recherche. *Méthodes de recherche en management*, *2*, 13-33.

Piaget, J. (1967). *1967 Logique et connaissance scientifique. Paris, Gallimard*.

Riegler, A. (2001). Towards a radical constructivist understanding of science. *Foundations of science*, *6*(1), 1-30.

Sandberg, J. (2005). How do we justify knowledge produced within interpretive approaches? *Organizational research methods*, *8*(1), 41-68. https://doi.org/10.1177/1094428104272000

Savall, H., and Zardet, V. (2004). *Recherche en sciences de gestion : Approche qualimétrique, observer l'objet complexe*.

Smith, M. L. (2006). Overcoming theory-practice inconsistencies : Critical realism and information systems research. *Information and organization*, *16*(3), 191-211. *https://doi.org/10.1016/j.infoandorg.2005.10.003*

Thietart, R.-A. (2014). *Méthodes de recherche en management-4ème édition*. Dunod.

Thiétart, R.-A., Baumard, P., and Donada, C. (2014). *Méthodes de recherche en management-4ème édition* (4ème). Dunod.

Von Glasersfeld, E. (2001). The radical constructivist view of science. *Foundations of science*, *6*(1), 31-43. https://doi.org/10.1023/A:1011345023932

Yanow, D. (2006). Talking about practices : On Julian Orr's talking about machines. *Organization Studies*, *27*(12), 1743-1756. https://doi.org/10.1177/0170840606071935

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