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Pragmatism: the connection between theory and practice

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Abstract

Purpose: Faced with the recurring criticism of the gap between academic research and the needs emanating from professional practice, the interventionist approach has been understood as one of the alternatives that can mitigate this gap and produce relevant results for professional practice. Some models were developed to carry out interventionist research that, although useful, do not have the scope of the pragmatic method. The purpose of this essay is to propose and defend the use of pragmatism as the most suitable research method for the area of Accounting and Management, specifically in those researches that adopt an interventionist perspective focused on solving complex problems related to professional practice.

Method: This text was developed in the form of an essay where it is argued, through a critical analysis of texts related to Pragmatism, that the pragmatic method is the most suitable for the development of interventionist research in the area of Accounting and Management.

Discussion: This essay argues that the use of the pragmatic method is the most suitable alternative for the development of research with an interventionist approach, in the area of Accounting and Management, which involves complex practical problems.

Contributions: The main contribution of this essay is to argue that the pragmatic method is the most suitable for solving complex practical problems and for leveraging the production of knowledge in interventionist research in the area of Accounting and Management, emphasizing the relevance of abductive reasoning in the formulation of alternative and provisional hypotheses in the course of the Inquiry process.

Keywords: Pragmatism. Inquiry. Abduction.

*"Having opinions is selling yourself.
To have no opinions is to exist.
To have all opinions is to be a poet."
Fernando Pessoa
The Book of Disquiet*

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Introduction

O The objective of this essay is to propose and defend the use of pragmatism as the most suitable method for the development of research in the area of Accounting and Management, focused on solving complex problems related to professional practice, which adopt an interventionist perspective. Complex problems are understood here as those that involve not only quantitative aspects with a large number of interactions and interferences, but also uncertainties, indeterminacies and randomness, according to Morin's conceptualization of complexity (2005).

Pragmatism, as observed by Waal (2007), at least in its initial aspect developed by Charles Peirce, is not a theory but a method that traces a connection between theory and practice, that is, between thought and action, which, according to the suggestion of Buch and Elkjær (2019), should be considered by researchers as a useful tool for studies concerned with practice in organizations.

This proposal becomes imperative given the recurrent and pertinent criticisms of the distance between academic research and the needs of professional practice, exhaustively discussed in the literature (Hansen, Otley & Van der Stede, 2003; Hughes, O'Regan & Wornham, 2008, Quattrone, 2009; Birnberg, 2009; Avenier & Bartunek, 2010; Baldvinsdottir; Mitchell & Nørreklit, 2010; Tucker & Parker, 2014; Sidor, 2015; Wood Jr. & Souza, 2019; Sharma & Bansal, 2020; Costa, Machado & Chamber, 2022).

The pertinence of these criticisms gains greater relevance in the specific case of our country, where resources destined to scientific research are scarce and mostly financed with public resources. In this context, the least that is expected is that these researches produce results with relevant social impacts, since, "the final objective of research in social sciences is to improve life (instead of describing it or simply understanding it)" (Baldvinsdottir, Mitchell, & Nørreklit, 2010, p. 82), and "improving life means intervening in reality" (Lee, 2009, p. 153).

Given this context, the Interventionist Research (IVR) approach has been recommended as one of the alternatives that can mitigate this gap between academic research and the needs of practice, and produce relevant results for professional practice (Jönsson & Lukka , 2007; Jönsson, 2010).

IVR is understood by Jönsson and Lukka (2007) as a type of case study in which one of its essential characteristics of these studies, the direct involvement of the researcher with the other actors in the process, is strengthened. In this case, as highlighted by Jönsson (2010), it is necessary to accept that the objects of study may be affected by the studies themselves, which implies abandoning the researcher's neutrality paradigm, according to which he must act as a mere observer, a paradigm that is so rooted in positivist research. In IVR, the researcher acts and the theory is built in action in close collaboration with the practitioners (Jönsson & Lukka, 2007; Suomala & Yrjänäinen, 2012; Yrjänäinen, Suomala, Laine & Mitchell, 2018).

In the same line of interventionist research models, Van de Ven (2010) developed the Engaged Scholarship approach. This approach, according to the author, consists of a participatory form of research to obtain the different perspectives of the main stakeholders (researchers, users, clients, sponsors and practitioners) in the production of knowledge about complex problems. Van de Ven (2010) further notes that this approach can produce more penetrating and insightful knowledge than when scholars or practitioners work alone on these problems.

Some models that have been proved useful in problem solving were developed for interventional research (Nonaka, Konno & Toyama, 2001; Labro & Tuomela, 2003; Suomala & Yrjänäinen, 2012). However, the creation of relevant knowledge through the application of these models has been modest and is still a challenge to be overcome, as noted by Lukka and Wouters (2022).

It is in this context that the use of the pragmatic method is proposed here to carry out research with an interventionist approach in the area of Accounting and Management. This method has the ability to leverage the production of useful knowledge (Vo, 2012), notably with regard to inquiry (a concept that in the pragmatic view refers to the process by which an indeterminate situation is transformed into a problem to be solved), and the use of abduction in the formulation of provisional hypotheses, as evidenced by Lorino (2018).

This text, developed in the form of an essay, is structured as follows: this Introduction, which contextualizes the theme addressed, is followed, in the second section, by a brief summary of the Method used. Then, in the third section, the historical context of the emergence of pragmatism is discussed and then, in the fourth section, the Pragmatic Method is presented and, in a separate item, in the fifth section, the Abductive reasoning, of particular relevance in the construction of alternative and provisional hypotheses for the formulation and solution of complex practical problems. The text follows with a presentation and analysis of the main criticisms of pragmatism in the sixth section. Then, in the seventh section, in the Discussion item, the text presents the arguments used in defense of the use of the Pragmatic Method in interventionist research (IVR) and ends with the Final Considerations of the authors.

2. Method

In order to achieve its objective, which is to propose and defend the use of pragmatism as the most suitable method for the development of interventionist research in the area of Accounting and Management, this text was developed in the form of an essay.

The essay is a type of text that presents and discusses an idea or a proposal, and uses structured arguments to defend it. As Meneguetti (2011) observes, the essay is a form whose construction differs from the logic of traditional science. Its strength, continues Meneguetti (2011), is not related to methodological rigor, but to its reflective capacity to understand reality.

Meneguetti (2011) also observes that in the area of management, the essay is an important resource to promote interdisciplinarity and the construction of knowledge through subjectivity. Unlike the traditional method of science, in which the rigor of form is essential, the essay requires that the author and the reader are able to assess that the understanding of reality also occurs in other ways (Meneghetti, 2011; Soares, Picolli & Casagrande, 2018).

In the present case, this essay argues, through a critical analysis of texts related to pragmatism, that the pragmatic method is the most suitable for the development of interventionist research in the area of Accounting and Management, by highlighting the common roots of the proposed method (Pragmatism) and the field of knowledge in focus (Accounting and Management), which is the concern with issues of a practical nature.

3. The historical context of the emergency of pragmatism: the metaphysical club and the pragmatic maxim

Pragmatism had its origins in the Metaphysical Club meetings, founded in Cambridge in the early 1870s (Waal, 2007; Lorino, 2018), in which, according to Menand (2002), William James, Charles Sanders Peirce, Oliver Wendell Jr, Nicholas St John Green, Joseph Bangs Warner, John Fisk, Francis Ellingwood Abbot and Chauncey Wright, who, according to Lorino (2018), although they did not have an academic background in philosophy, intended not only to question traditional European philosophy, but to create a new one based on life experience, as opposed to Cartesian idealism based on dualism, representationalism, and the abstraction of experience.

Peirce, James, Dewey and Mead are unanimously considered the creators of classical pragmatism, as noted by Elkjaer and Simpson (2011), although Peirce himself considered Alexander Bain, author of The Emotions and the Will, published in 1859, as one of the forerunners of pragmatic thinking, as indicated by Feodorov (2017).

According to Waal (2007), the central theme of the club's discussions revolved around the concept of belief formulated by Bain (1865), in The Emotions and the Will, according to which the essence of belief is the expectation of some contingent future that will follow our action, and thus belief is meaningless except in relation to our actions.

The importance of Bain's concept for pragmatism stems from the fact that he defines belief in terms of its effects on our actions, without worrying about its causes or characterizing it as a feeling, as observed by Engel (2005). Still according to Wall (2007), it is Bain's (1878) concept of belief that portrays the spirit of Peirce's pragmatic maxim (1878), which we can summarize as follows: The conception we have of an object is the conception we can to imagine of the practical effects that we conceive that the object of our conception has. Thus, our conception of the object is our conception of these effects (Peirce, 1878).

Thus, the pragmatic maxim is a method of clarifying propositions, that is, a method of listing the practical consequences that the proposition is expected to have if it is true. In this sense, the propositions that have meaning are those whose effects can be pointed out, observes Engel (2005). Therefore, at least in this initial phase, pragmatism is a method and not a philosophical theory, more specifically, a method to determine the meaning of concepts, or as Waal (2007) points out, a criterion of meaning.

For Peirce (1878), and by extension for pragmatism, only concepts that have practical implications have meaning, since it is these practical implications that give meaning to the concept. Thus, according to this pragmatic view, a concept that has no conceivable practical implications is not a concept. According to Waal (2007), Peirce's view of pragmatism was later expanded by William James, Ferdinand Schiller and others who followed them and who transformed it into a theory of truth.

However, still according to Waal (2007), this expanded view of pragmatism was never shared by Peirce. For him, pragmatism is a criterion of meaning, and Waal (2007) also stresses that pragmatic theory is, in fact, nothing more than the result of applying the pragmatic criterion to the concept of truth. Since then, continues Waal (2007), several trends have emerged, ranging from the instrumentalism of John Dewey to the contemporary approaches represented by Richard Rorty and Susan Haack.

Pragmatism historians, as observed by Lorino (2018), cite several factors that may have favored its emergence in the United States at the end of the 19th century, among them, the publication in 1859 of Darwin's work - On the Origin of Species; the Civil War (1861–1865), and the social impact of the rapid economic and industrial development that characterized this era in US history. With regard to Darwin's work, Lorino (2018) points out that it was a decisive factor for pragmatists to question the idealist view of life and nature focused on stability and permanence, and thus align themselves with the approach to the dynamics of evolutionism.

With regard to the Civil War, Lorino (2018) observes that some members of the club actively participated in it and had a traumatic experience, which led them to discredit the beliefs and assumptions that characterized intellectual life in the era that preceded it. In terms of the social experience lived by the United States in the 19th century, Lorino (2018) points out that the accelerated economic expansion that characterized that time transformed the country into a new international power, with the Republican Party protecting and promoting industrial capitalism and the way of life resulting from it, which, according to Lorino (2018, p.9) would have led Dewey to comment later that the progressive and unstable character of American civilization at the time would have facilitated the emergence of a philosophy that sees the world as being in continuous training, where there is room for indeterminism and for the new.

Although, to the best of our knowledge, there are no records that historical pragmatists have been concerned with specific aspects of Accounting, the close connection between the practical essence of Accounting and the pragmatic maxim is undeniable.

This practical essence of Accounting is already evidenced by Luca Pacioli when he begins his seminal work Trattato de computi e delle scritture, with the following sentence: "Of the things that are necessary to the true merchant and of the order to know how to write a Ledger with his Diary in Venice and also anywhere else" (Pacioli, 1494/1911, p.3).

On the other hand, the importance of Accounting in the development of capitalism is also undeniable, a development that in the American case is pointed out by some authors, already mentioned, as one of the origins of pragmatism. In this sense, Weber (2006) observes that the rational organization of the capitalist company might not have been possible without the separation between the business and the owner's family (entity principle) and the rationality of double entries.

This importance is reinforced by Sombart (1946), who states that capitalism and accounting are two phenomena so intimately connected, as form and content, that it cannot be said whether capitalism created accounting as a tool in its expansion, or if it was accounting that created capitalism.

4 The pragmatic method

The focus of the pragmatic alternative is the social nature of the real-time actions that constitute living experience. This perspective offers a way to address "how" and "why" questions that remain difficult to address by conventional approaches as noted by Elkjaer and Simpson (2011).

Unlike the Cartesian view, which establishes that in order to find the truth, everything must be placed in doubt, individually and isolated from the material and social world, in Peirce's view, doubt arises when "[...] our actions find some form of resistance, and this can be resolved by reconstructing the meanings of each person, the situation, or rather the relationship between them" (Simpson & Lorino, 2016, p. 54). This reconstructive activity, the authors continue, Peirce (1878) calls inquiry. For those who are not familiar with the concept of the inquiry: investigation presupposes a determined search, while inquiry means an open activity that does not presuppose the search for something definite.

Given the limited space inherent to this type of text, it is not possible to deal here with all aspects and vertents of the pragmatic approach. Therefore, like Simpson and Lorino (2016), this essay focuses on three pragmatic concepts that are particularly useful for interventional research, which are Habit, Inquiry and Conversational Trans-action, and which are interrelated.

Although these principles are presented separately, in a performative language, they are intimately engaged in the unfolding experience, and, as Simpson and Lorino (2016) indicate, they cannot be considered separately in the practice of the intervention. Habits are involved in the lived experience of research as a resource and mediation of ongoing inquiry, which is collectively achieved through Conversational Trans-action. Next, in a separate item, we deal with abduction and its usefulness for formulating hypotheses.

4.1 Habit

The concept of habit, as a result of the transformation of thought into action, developed throughout the 19th century, in a theoretical framework that refuted the mind-body dualism of modernity (Feodorov, 2017). Habits adapt a person's behavior according to the dynamics of his environment, and help to maintain a balance in his mental states through automated behavior, which follows certain patterns, but simultaneously maintains adequate flexibility within the context and the individual specificity (Feodorov, 2017).

For pragmatists, according to Lorino (2018), the language of action is the language of habits, and the author also observes that the pragmatic theory of habits conceptualizes habits as classes of actions based on experience with dispositional and social characteristics, and not with behavioral characteristics. In Dewey's view, "The essence of habit is an acquired predisposition to forms and modes of responses" (Dewey 1922, as quoted by Lorino, 2018, p.72).

In the field of organizational studies, Lorino (2018) observes that habit is normally understood as an individual conduct, while routines are understood as organizational phenomena, which contrasts with the pragmatic understanding that habit is not a subjective and individual pattern of behavior. action, but a social and cultural pattern of action and thus "[...] questions the theory/practice dichotomy" (Lorino, 2018, p.75).

Simpson and Lorino (2016) observe that in Dewey's view, habits are acquired and continuously modified through experience, but never completely determine the course of actions. This view, as the authors point out, is shared by contemporary academics, such as Bourdieu, for whom habit (habitus) "[...] is a system of dispositions, actions and perceptions that individuals acquire over time in their social experiences" (Socha, 2008, p.46), which appears, according to Setton (2002), as a way of uniting individual reality with external reality, and the interaction between the objective and the subjective.

This pragmatic view of habit appears with some frequency in the literature related to organizational studies, mainly in those focused on the field of routines, as can be seen in Feldman (2000), Feldman and Pentland (2003); Pentland and Feldman (2005), Cohen (2007). Winter (2013), Simpson and Lorino (2016), among others.

4.2 Inquiry

In the previous item, habit was presented as the language of action, and in this sense, as stated by Lorino (2018), from a pragmatic point of view, habits would be considered as static entities. As a result, pragmatists developed a complementary concept, which is the concept of inquiry, which "[...] is the social process through which habits are transformed, adapted, abandoned or reinvented, [...]" (Lorino, 2018, p.94). In another text, Lorino, Tricard and Clot (2011) define inquiry as the process of mobilization and adaptation to the new and emerging.

According to Buch and Elkjær (2019), the idea of investigation is the focal point of works on action theory, action science and organizational learning. However, for Argyris and Schön (1978, 1996), the relationship between thought and action is sequential; first, mental modeling (cognition) occurs, and then action, while for pragmatists, thought and action are intertwined and cannot be separated, as Buch and Elkjær (2019) point out.

In Dewey's view, as observed by Simpson and Lorino (2016), inquiry is a process that transforms an indeterminate situation into one that is sufficiently unified so that a coherent course of action can be anticipated. However, these same authors emphasize that inquiry is not always visible, it does not always involve a perceptible break in habits and does not start with a structured problem that needs to be solved.

Although the inquiry process does not occur in isolation, but concomitantly with the transformation of habits through trans-action conversation, it takes place, according to Simpson and Lorino (2016), in two stages, and the second stage can be unfolded in two stages, as follows:

- STAGE 1

  The first one consists of transforming a perceived difficulty into a problem to be solved. For this, a credible hypothesis is abductively constructed to make this difficulty intelligible.

- STAGE 2

  Once the problem has been constructed, the second step concerns its solution. This solution is used, according to Lorino, Tricard and Clot (2011) involving abductive, deductive and inductive logics, in two phases:

  - PHASE 1

    The plausible hypothesis is abductively constructed to make the perceived difficulty in STAGE 1 intelligible and translated into testable propositions through deductive reasoning.

  - PHASE 2

    Through inductive reasoning, a protocol is developed to test these propositions.

Thus, "All the reasoning of the Inquiry is expressed through experimentation in which thinking and acting are simultaneous and confluent dynamics" (Simpson & Lorino, 2016, p.67).

In a more contemporary view, Haack (2013) argues that a well-conducted inquiry is one in which the researcher is interested in discovering how things really are, and draws attention to what she calls Pseudo-Inquiry, which, according to her, can assume two distinct forms: Sham Reasoning and Fake Reasoning.

In the first case, sham reasoning, the researcher does not try to find out how things are, he just seeks arguments to try to justify a proposition that he has already accepted and is non-negotiable, whether due to ideological interests or to satisfy the commercial interests of his research funders, or even to defend beliefs that are very dear to him, in which case the researcher will try to adjust his empirical findings to his personal interests. In short, sham reasoning occurs when it is no longer the reasoning that determines the conclusion, but the conclusion that determines the reasoning (Haack, 2011, p.87).

In the second case, fake reasoning, the researcher is not interested in knowing how things really are, nor in defending any belief or ideology that is dear to him, but is moved only by the desire to promote himself, to achieve fame or notoriety, or even earn money or be promoted in the academic career, which, in Haack's (2013) view, can be achieved through the skillful defense of a false or obscure idea. In this case, the goal is not to gain knowledge, but to write an ingenious and aesthetically pleasing book or article.

In Haack's view, Waal (2007) observes that the author uses the analogy of crosswords to explain how knowledge is acquired. According to her, how adequate an entry in the crossword puzzle is depends on how much it is supported by the available information and the entries already intersected, how reasonable those entries are, regardless of the word in question and how much the game has already been completed. Likewise, knowledge is generated from plausible evidence that depends on the various pieces of evidence already intersected, on how reasonable they are, and on how much the total has already been completed, that is, the objective of the inquiry is not an isolated conclusion, but having important parts filled in, like a crossword puzzle.

4.3 Conversational Trans-Action

Studies that analyze how the social and organizational dimensions of a phenomenon are produced, according to Lorino (2018), alternate between individualism and holism. In the first case, sociability is based on the aggregation of individual and subjective processes of thoughts and actions, while in the second case, social and organizational phenomena are autonomous, and individual behaviors must be constrained by social and organizational norms.

The relationship between these levels, micro and macro, according to Lorino (2018), has worried researchers in the organizational area, but, according to the author, it has not produced satisfactory results. Pragmatism rejects this dualism and offers an alternative "[...] focusing on sociability as a continuous ongoing activity" (Lorino, 2018, p.133). In this view, sociability is a relational, temporal and situated construction, which does not require any prior agreement between the actors. According to this approach, the trans-actional process does not have an individualistic or holistic sense, but a continuous exchange between habits, beliefs, acts and discourses.

To explain this integration of temporality and sociability, Lorino (2018) resorts to Peirce's theory of signs, noting that the meaning of A is not accessible through a sign B, but through the social relationship between B and C, and exemplifies by placing the following situation: imagine that a manager says "Congratulations" to a subordinate who made a mistake. Evidently, congratulations in this context does not have the same meaning as in the dictionary, but it's opposite and socially refers to a conflict. The sign also expresses a temporal movement, because the relation between B and C is also a temporal relation. C can be the past and/or the future of B. In the example, "congratulations" reminds the subordinate of a recent mistake he made and anticipates its possible consequences (warning, loss of bonus etc.).

The concept of Trans-action has methodological implications insofar as the observer participates in the trans-actional situation, there is no external observation, there is no observer neutrality, there is no duality between actors and researchers, all research participants, together and at the same time, they transform the situation and produce new competences, they are all inquirers, as highlighted by Lorino, Tricard and Clot (2011). It is worth noting here the similarity of this concept with the Engaged Scholarship approach, developed by Van de Ven (2010).

This approach can make relevant contributions to organizational studies, especially in cases of strategic change and from the perspective of strategy as practice, since the adoption of a dynamic and integrative view helps to understand the changing situation, as observed by Lorino (2018). This Trans-action Inquiry concept can also contribute to studies related to corporate governance by perceiving stakeholders not as data, but as an ongoing construction process, which continually redefines the interests of those involved in a perspective that seems more appropriate to the complexity. of the business world, according to Lorino (2018).

5 Abduction

The term "abduction", according to Douven (2021), is used in two related but different senses. In the first sense, historically, it refers to the place of explanatory reasoning in the generation of hypotheses, while in the second, more frequently used in modern literature, it refers to the place of explanatory reasoning in the justification of hypotheses and called "inference to the best explanation".

This concept, according to Lorino (2018), was initially conceived by Peirce as a logical concept, and later expanded by him as an epistemological model that constitutes the first stage of the inquiry. In this sense, the role of abduction is to find new answers to the questions that triggered the inquiry, that is, to build hypotheses about a dubious situation, which can be characterized in the context of organizational practice as "[...] a collective effort to imagine forms of action and different habits for the future" (Lorino, 2018, p.189).

Abductive reasoning, according to Lorino (2018), is a useful form of methodological reflection that has been very little used in the context of organizational studies, and that is particulary useful in situations of difficulty in finding plausible explanations about the meaning of fragmented evidence.

Referring to Peirce, Lorino (2018) observes that Abduction is the type of reasoning that, in a context of ambiguities, challenges the usual interpretations by reassembling unexplained facts into plausible hypotheses and illustrates abductive reasoning by comparing it to the tales of Sherlock Holmes, where the cause is inferred from its effects. The reasoning begins with an observation, then involves an existing rule and then proposes an explanatory hypothesis that characterizes the observation as a consequence of that rule.

Lorino (2018) also observes that, "[...] Sherlock Holmes called this process "reasoning backward", which is close to the first denomination that Peirce gave to abduction: "retro-deduction" (Lorino, 2018, p.192). He emphasizes, however, that abduction, like induction, is fallible and that, therefore, its conclusions can be false while the premise is true, and in this sense, abduction can be considered as the most plausible explanation that new facts may invalidate.

In this context, observe Ketokivi and Mantere (2021), from a strictly logical point of view, in abductive reasoning the conclusion is not A, but the assertion that there are reasons to suspect that A is true. Still according to Ketokivi and Mantere (2021), the construction of explanations and interpretations involves abductive reasoning which, unlike deduction and induction, is not a computational or algorithmic activity, but a cognitive one, which goes beyond evidence. It involves choosing between alternative explanations, and very importantly, this choice is not guided by the data but by the principles of the scientific community in which the argument is being presented (parsimony, formalization, quantitative analysis, or description, nuance, interpretation of a specific context).

In a study that defends the use of intuition in organizational research, Kump (2022) in turn observes that the claim for the acceptance of the use of intuition in conducting research is linked to the discussion about the acceptance of abduction. The author defines intuition, based on a minimum consensus of researchers in the field, as being "[...] a quick and spontaneous process that does not follow the rules of logic; in contrast to an analytically derived result, an intuitive result is tacit and holistic, and intuitors feel confident about it, despite the lack of evidence" (Kump, 2022, p.3).

While acknowledging that Peirce denied the relevance of intuition, Kump (2022) notes that many researchers with whom she aligns have argued that abduction, also in Peirce's sense, involves intuition when it comes to discovering patterns and deriving explanations from data. According to the author, both those researchers who see research as a craft and emphasize reflexivity, and those who highlight the relevance of abduction in research, have been insisting on the need to recognize the intuition of researchers in organizational research (Kump, 2022).

However, it is clear that to ensure scientific rigor, both the results obtained through intuition and the hypotheses formulated from the abduction must be validated. The form of validation depends on the research design.

6 Criticism of Pragmatism

Most of the criticisms of pragmatism are based on its origin, and classify it as a product of American capitalism, of a culture in which what does not generate material benefit is meaningless, in which a thing is true when believing in it is advantageous, as highlights Waal (2007). It is worth remembering here, as Lorino (2018) does, that pragmatism emerged at a time when rapid economic expansion was transforming the American nation into an international power, which already had imperialist characteristics with the annexation of a good part of the Mexican territory after the war of 1847.

Bertrand Russell, according to Waal (2007), was one of the first critics of pragmatism, especially with regard to its criterion of truth. When referring to this criterion that establishes that utility is the criterion of truth, Russell (1910) observes that this is not a useful criterion, because according to him, it is more difficult to know whether a belief is useful than to know whether it is true, and furthermore, he adds that there is no reason which establishes a priori that truth and utility should go together.

Another important critic of pragmatism is Max Horkheimer, member of the Frankfurt School, and creator of Critical Theory. In his work Eclipse of Reason, Horkheimer (1976) observes that pragmatism is "[...] a doctrine that holds not that our expectations are realized and that our actions are successful because our ideas are true, but the opposite, that our ideas are true because our expectations are fulfilled and our actions are successful" (Horkheimer 1976, p.51). The author goes on to point out that pragmatism has replaced the contemplative examination of life and the analysis of the past with a vision of future possibilities, and concludes that "Both the attack on contemplation and the praise of technical expertise express the triumph of means over ends" (Horkheimer, 1976, p.51).

Thus, Horkheimer, "[...] associated pragmatism with positivism, to the extent that, in his view, both perspectives would judge that the task of science [was] the prediction and utility of results." (Mendonça, 2013, p. 367). In his critique of pragmatism, Horkheimer (2008), Mendonça (2013) continues, observes that the pragmatic view of truth is linked to trust in the existing world, thus implicitly manifesting a belief in the stability and merits of the free market.

However, as observed by Mendonça (2013), the critical position of the Frankfurt School in relation to pragmatism was not unanimous, and from the successive revisions through which critical theory went through, pragmatism was fundamental to the discussion on democracy, thanks to the works by Habenas and Honnet that lead to "[...] a radical democratic model, capable of going beyond the focus on the institutional functioning of forms of government and proposing a comprehensive reading of the way in which a collectivity transforms itself consciously and politically" (Mendonça, 2013, p.400).

Finally, without exhausting the subject, it is worth mentioning the interesting and pertinent criticism elaborated by Meneghetti (2007). In this insightful and still current work, the author analyzes the contributions of pragmatism in organizational studies, in which, without ignoring criticisms of pragmatism, he does not consider it correct to accuse him of lack of commitment to social transformations.

The author observes, however, that "[...] what happens in organizational studies is the conversion of pragmatism as scientific knowledge into irrational subordination to utility and practical action in the fields of economics, politics, science, culture, etc. of education, and so on" (Meneghetti, 2007, p. 11). The pressing need for academic production by researchers caused by the calculability criteria used in evaluating their performance is, in the author's view, one of the problems to be reviewed, a problem pointed out in 2007, and still not resolved.

7 Discussion

In the typology of Gibbons et al. (1994), research developed in practice corresponds to Mode 2 of knowledge production, while academic research corresponds to Mode 1. As observed by Maxwell (2019) in a review and update of the work by Gibbons et al (1994), Nowotny, Scott and Gibbons (2003) point out that in Mode 1, knowledge is generated in a theoretical/experimental environment (universities or associated institutes), generally unidisciplinary and based on a research agenda. Subsequently, this knowledge is applied through technology transfer, and subsequently managed.

In Mode 2, according to Nowotny, Scott and Gibbons (2003), knowledge is generated in the context of its application, that is, in the work environment, by professionals in collaboration with other interested stakeholders, based on a practical agenda of problem solving, which is usually multidisciplinary. Thus, the application/intervention context describes the environment in which problems arise, methodologies are developed, results are disseminated and uses are defined (Maxwell, 2019).

Although the idea of practical knowledge is not new, this different form of knowledge that emerges in the practice environment through collaboration between practitioners and academics, challenges the epistemological and ontological bases of traditional methods of academic research. To overcome this challenge, Costley (2019) suggests an epistemic flexibility characterized by multidisciplinarity, and the incorporation of the concepts of Bricoleur developed by Lévi-Strauss (1976) and of Habitus, proposed by Bourdieu (1977).

The Bricoleur, in the notion of Lévi-Strauss (1976), develops his work in practice, using the means and materials available at the time, and his activity involves a detailed retrospective examination of similarities and differences. Bourdieu's concept of Habitus (1977) refers to the open system of dispositions, actions and perceptions that individuals acquire over time in their social experiences. "Bourdieu thus intends to overcome the antinomy between objectivism (in this case, the preponderance of social structures over the actions of the subject) and subjectivism (primacy of the subject's action in relation to social determinations) in the human sciences" (Socha, 2008, p. 46).

From a philosophical perspective, IVR aligns with the pragmatic method, as both are concerned with the practical outcome. The pragmatic method also includes concepts similar to those of Bricoleur and Habitus, suggested by Costley (2019) and described earlier.

In addition, and particularly relevant, the pragmatic method developed and incorporated the abductive reasoning to be used during the inquiry for the formulation of hypotheses in the process of transforming an indeterminate situation into a problem to be solved. Here it is important to emphasize that abductive reasoning starts from the observed consequences of actions in practice to formulate hypotheses, and not from the literature, as in traditional methodologies, which makes the process of creating new knowledge much richer.

Lukka and Vinnari (2017) describe the process of conducting an IVR as follows: the first phase is related to gaining access to the organization that will be the object of study, which can occur before or immediately after formulating the research question. The second phase involves the analysis of theoretical and practical aspects to understand the organizational object of the study before the change and build hypotheses to visualize how the organization or a sub-process could become after the change. This phase requires that the researcher and organizational actors establish a common vision of how to guide the change process in which the researcher participates as a team member. The result of this phase is usually a solution that can be applied across the organization. The third and final phase of the IVR involves a reflection on the results of the research project to formulate theoretical contributions.

It is in the second phase of this process that the contribution of the pragmatic methodology, as described in section 2 of this essay, can most effectively contribute to the success of the IVR. The inquiry process and the concept of Habit can effectively contribute to the understanding of the organizational state in the pre-change period, in the search for solutions to be implemented and in the construction of hypotheses about the post-change state. The pragmatic methodology also contributes, in a relevant way, in the third phase of the process through the use of abductive logic, in the formulation of alternative hypotheses for the construction of theoretical contributions from the research findings.

It is in view of the above that this essay argues and defends that the pragmatic methodology is the most suitable for the development of research with an interventionist approach.

8 Final Considerations

Traditional methodologies have undoubtedly contributed to the advancement of knowledge, but have failed to describe, explain and solve complex practical problems (Bartle & Shields, 2008; Van de Ven, 2010; Lorino, 2018; Kaushik & Walsh, 2019).

Given this, this essay proposes the use of the methodological approach of pragmatism in research related to complex problems, which in the words of Van de Ven (2010, p. IX) "[...] often exceed our limited abilities to study on our own", and involve research that normally has an interventionist and/or engaged scholarship character.

In this sense, this essay is aligned with the vision of Cavalcanti and Alcadipani (2011, p. 578) who seek to rescue pragmatic elements present in the works of Foucault and Deluze, and defend the post-structuralist critical approach, in the same way that it is defended here the pragmatic method, that is, as "[...] an alternative that seeks not to crush singularities with totalizations, or suffocate them with universalisms, but that is capable of problematizing the present, which is what is actually done in the day by day".

Of particular interest to research in the organizational field, notably those of an interventionist nature, is the use of abductive reasoning in the formulation of alternative hypotheses during the inquiry process, hypotheses which, evidently, should later be tested with the necessary scientific rigor. Formulating hypotheses solely based on the literature means ignoring the practical knowledge acquired in professional experience and limiting the generation of knowledge since, once these hypotheses are confirmed, most of the knowledge that would be generated is already contained in the literature on which they were based.

In conclusion, it is understood that the pragmatic approach, and particularly the abductive reasoning in the formulation of hypotheses, should be legitimately considered as the most suitable method for the development of interventionist research involving complex problems in the areas of Accounting and Management.

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