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Case study research: opening up research opportunities

Adriana Roseli Wünsch Takahashi
Administração, Universidade Federal do Paraná, Curitiba, Brazil, and
Luis Araujo
Alliance Manchester Business School, The University of Manchester, Manchester, UK

Abstract

Purpose – The case study approach has been widely used in management studies and the social sciences more generally. However, there are still doubts about when and how case studies should be used. This paper aims to discuss this approach, its various uses and applications, in light of epistemological principles, as well as the criteria for rigor and validity.

Design/methodology/approach – This paper discusses the various concepts of case and case studies in the methods literature and addresses the different uses of cases in relation to epistemological principles and criteria for rigor and validity.

Findings – The use of this research approach can be based on several epistemologies, provided the researcher attends to the internal coherence between method and epistemology, or what the authors call "alignment."

Originality/value – This study offers a number of implications for the practice of management research, as it shows how the case study approach does not commit the researcher to particular data collection or interpretation methods. Furthermore, the use of cases can be justified according to multiple epistemological orientations.

Keywords Case study, Concept, Epistemology, Rigor, Quality, Alignment

Paper type Literature review

1. Introduction

The case study as a research method or strategy brings us to question the very term "case": after all, what is a case? A case-based approach places accords the case a central role in the research process (Ragin, 1992). However, doubts still remain about the status of cases according to different epistemologies and types of research designs.

Despite these doubts, the case study is ever present in the management literature and represents the main method of management research in Brazil (Coraiola, Sander, Maccali, & Bulgacov, 2013). Between 2001 and 2010, 2,407 articles (83.14 per cent of qualitative research) were published in conferences and management journals as case studies

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(Takahashi & Semprebom, 2013). A search on Spell.org.br for the term "case study" under title, abstract or keywords, for the period ranging from January 2010 to July 2019, yielded 3,040 articles published in the management field. Doing research using case studies, allows the researcher to immerse him/herself in the context and gain intensive knowledge of a phenomenon, which in turn demands suitable methodological principles (Freitas *et al.*, 2017).

Our objective in this paper is to discuss notions of what constitutes a case and its various applications, considering epistemological positions as well as criteria for rigor and validity. The alignment between these dimensions is put forward as a principle advocating coherence among all phases of the research process.

This article makes two contributions. First, we suggest that there are several epistemological justifications for using case studies. Second, we show that the quality and rigor of academic research with case studies are directly related to the alignment between epistemology and research design rather than to choices of specific forms of data collection or analysis. The article is structured as follows: the following four sections discuss concepts of what is a case, its uses, epistemological grounding as well as rigor and quality criteria. The brief conclusions summarize the debate and invite the reader to delve into the literature on the case study method as a way of furthering our understanding of contemporary management phenomena.

2. What is a case study?

The debate over what constitutes a case in social science is a long-standing one. In 1988, Howard Becker and Charles Ragin organized a workshop to discuss the status of the case as a social science method. As the discussion was inconclusive, they posed the question "What is a case?" to a select group of eight social scientists in 1989, and later to participants in a symposium on the subject. Participants were unable to come up with a consensual answer. Since then, we have witnessed that further debates and different answers have emerged. The original question led to an even broader issue: "How do we, as social scientists, produce results and seem to know what we know?" (Ragin, 1992, p. 16).

An important step that may help us start a reflection on what is a case is to consider the phenomena we are looking at. To do that, we must know something about what we want to understand and how we might study it. The answer may be a causal explanation, a description of what was observed or a narrative of what has been experienced. In any case, there will always be a story to be told, as the choice of the case study method demands an answer to what the case is about.

A case may be defined *ex ante*, prior to the start of the research process, as in Yin's (2015) classical definition. But, there is no compelling reason as to why cases must be defined *ex ante*. Ragin (1992, p. 217) proposed the notion of "casing," to indicate that what the case is emerges from the research process:

> Rather than attempt to delineate the many different meanings of the term "case" in a formal taxonomy, in this essay I offer instead a view of cases that follows from the idea implicit in many of the contributions – that concocting cases is a varied but routine social scientific activity. [. . .] The approach of this essay is that this activity, which I call "casing", should be viewed in practical terms as a research tactic. It is selectively invoked at many different junctures in the research process, usually to resolve difficult issues in linking ideas and evidence.

In other words, "casing" is tied to the researcher's practice, to the way he/she delimits or declares a case as a significant outcome of a process. In 2013, Ragin revisited the 1992

concept of "casing" and explored its multiple possibilities of use, paying particular attention to "negative cases."

According to Ragin (1992), a case can be centered on a phenomenon or a population. In the first scenario, cases are representative of a phenomenon, and are selected based on what can be empirically observed. The process highlights different aspects of cases and obscures others according to the research design, and allows for the complexity, specificity and context of the phenomenon to be explored. In the alternative, population-focused scenario, the selection of cases precedes the research. Both positive and negative cases are considered in exploring a phenomenon, with the definition of the set of cases dependent on theory and the central objective to build generalizations. As a passing note, it is worth mentioning here that a study of multiple cases requires a definition of the unit of analysis *a priori*. Otherwise, it will not be possible to make cross-case comparisons.

These two approaches entail differences that go beyond the mere opposition of quantitative and qualitative data, as a case often includes both types of data. Thus, the confusion about how to conceive cases is associated with Ragin's (1992) notion of "small vs large N," or McKeown's (1999) "statistical worldview" – the notion that relevant findings are only those that can be made about a population based on the analysis of representative samples. In the same vein, Byrne (2013) argues that we cannot generate nomothetic laws that apply in all circumstances, periods and locations, and that no social science method can claim to generate invariant laws. According to the same author, case studies can help us understand that there is more than one ideographic variety and help make social science useful. Generalizations still matter, but they should be understood as part of defining the research scope, and that scope points to the limitations of knowledge produced and consumed in concrete time and space.

Thus, what defines the orientation and the use of cases is not the mere choice of type of data, whether quantitative or qualitative, but the orientation of the study. A statistical worldview sees cases as data units (Byrne, 2013). Put differently, there is a clear distinction between statistical and qualitative worldviews; the use of quantitative data does not by itself means that the research is (quasi) statistical, or uses a deductive logic:

> Case-based methods are useful, and represent, among other things, a way of moving beyond a useless and destructive tradition in the social sciences that have set quantitative and qualitative modes of exploration, interpretation, and explanation against each other (Byrne, 2013, p. 9).

Other authors advocate different understandings of what a case study is. To some, it is a research method, to others it is a research strategy (Creswell, 1998). Sharan Merrian and Robert Yin, among others, began to write about case study research as a methodology in the 1980s (Merrian, 2009), while authors such as Eisenhardt (1989) called it a research strategy. Stake (2003) sees the case study not as a method, but as a choice of what to be studied, the unit of study. Regardless of their differences, these authors agree that case studies should be restricted to a particular context as they aim to provide an in-depth knowledge of a given phenomenon: "A case study is an in-depth description and analysis of a bounded system" (Merrian, 2009, p. 40). According to Merrian, a qualitative case study can be defined by the process through which the research is carried out, by the unit of analysis or the final product, as the choice ultimately depends on what the researcher wants to know. As a product of research, it involves the analysis of a given entity, phenomenon or social unit.

Thus, whether it is an organization, an individual, a context or a phenomenon, single or multiple, one must delimit it, and also choose between possible types and configurations (Merrian, 2009; Yin, 2015). A case study may be descriptive, exploratory, explanatory, single

or multiple (Yin, 2015); intrinsic, instrumental or collective (Stake, 2003); and confirm or build theory (Eisenhardt, 1989).

In this context, it is important to address a common mix-up observed among students as well as the literature: the similarities and differences between comparative and multiple case studies. Comparative case studies seek to understand organizational aspects that generate counterpoints with deliberately chosen terms, so they can be compared to identify differences that lead to a divergent result (Yin, 2015). This design requires care in selecting cases, as comparisons require thinking of two distinct configurations in similar contexts or similar phenomena in different contexts. An example can be found in Picoli & Takahashi (2016). The authors sought to understand the differences in absorptive capacity and organizational learning processes in two public educational institutions with different degrees of digital platform use. The choice of the two institutions was justified by the fact that:

- both went through the same process of implementing computer labs intended for the use of information and communication technologies in 2007;
- both took part in the same regional program (Paraná Digital); and
- they shared similar characteristics regarding location (operation in the same neighborhood of a city), number of students, number of teachers and technicians and laboratory sizes.

However, the two institutions differed in the number of hours of program use, with one of them displaying a significant number of hours/use while the other showed a modest number, according to secondary data for the period 2007-2013. Despite the context being similar and the procedures for implementing the technology being the same, the mechanisms of social integration – an idiosyncratic factor of each institution – were different in each case. This explained differences in their use of resource, processes of organizational learning and capacity to absorb new knowledge.

On the other hand, multiple case studies seek evidence in different contexts and do not necessarily require direct comparisons (Stake, 2003). Rather, there is a search for patterns of convergence and divergence that permeate all the cases, as the same issues are explored in every case. Cases can be added progressively until theoretical saturation is achieved. An example is of a study that investigated how entrepreneurial opportunity and management skills were developed through entrepreneurial learning (Zampier & Takahashi, 2014). The authors conducted nine case studies, based on primary and secondary data, with each one analyzed separately, so a search for patterns could be undertaken. The convergence aspects found were: the predominant way of transforming experience into knowledge was exploitation; managerial skills were developed through by taking advantages of opportunities; and career orientation encompassed more than one style. As for divergence patterns: the experience of success and failure influenced entrepreneurs differently; the prevailing rationality logic of influence was different; and the combination of styles in career orientation was diverse.

A full discussion of choice of case study design is outside the scope of this article. For the sake of illustration, we make a brief mention to other selection criteria such as the purpose of the research, the state of the art of the research theme, the time and resources involved and the preferred epistemological position of the researcher. In the next section, we look at the possibilities of carrying out case studies in line with various epistemological traditions, as the answers to the "what is a case?" question reveal varied methodological commitments as well as diverse epistemological and ontological positions (Ragin, 2013).

3. Epistemological positioning of case study research

Ontology and epistemology are like skin, not a garment to be occasionally worn (Marsh & Furlong, 2002). According to these authors, ontology and epistemology guide the choice of theory and method because they cannot or should not be worn as a garment. Hence, one must practice philosophical "self-knowledge" to recognize one's vision of what the world is and of how knowledge of that world is accessed and validated. Ontological and epistemological positions are relevant in that they involve the positioning of the researcher in social science and the phenomena he or she chooses to study. These positions do not tend to vary from one project to another although they can certainly change over time for a single researcher.

Ontology is the starting point from which the epistemological and methodological positions of the research arise (Grix, 2002). Ontology expresses a view of the world, what constitutes reality, nature and the image one has of social reality; it is a theory of being (Marsh & Furlong, 2002). The central question is the nature of the world out there regardless of our ability to access it. An essentialist or foundationalist ontology acknowledges that there are differences that persist over time and these differences are what underpin the construction of social life. An opposing, anti-foundationalist position presumes that the differences found are socially constructed and may vary – i.e. they are not essential but specific to a given culture at a given time (Marsh & Furlong, 2002).

Epistemology is centered around a theory of knowledge, focusing on the process of acquiring and validating knowledge (Grix, 2002). Positivists look at social phenomena as a world of causal relations where there is a single truth to be accessed and confirmed. In this tradition, case studies test hypotheses and rely on deductive approaches and quantitative data collection and analysis techniques. Scholars in the field of anthropology and observation-based qualitative studies proposed alternative epistemologies based on notions of the social world as a set of manifold and ever-changing processes. In management studies since the 1970s, the gradual acceptance of qualitative research has generated a diverse range of research methods and conceptions of the individual and society (Godoy, 1995).

The interpretative tradition, in direct opposition to positivism, argues that there is no single objective truth to be discovered about the social world. The social world and our knowledge of it are the product of social constructions. Thus, the social world is constituted by interactions, and our knowledge is hermeneutic as the world does not exist independent of our knowledge (Marsh & Furlong, 2002). The implication is that it is not possible to access social phenomena through objective, detached methods. Instead, the interaction mechanisms and relationships that make up social constructions have to be studied. Deductive approaches, hypothesis testing and quantitative methods are not relevant here. Hermeneutics, on the other hand, is highly relevant as it allows the analysis of the individual's interpretation, of sayings, texts and actions, even though interpretation is always the "truth" of a subject. Methods such as ethnographic case studies, interviews and observations as data collection techniques should feed research designs according to interpretivism. It is worth pointing out that we are to a large extent, caricaturing polar opposites rather characterizing a range of epistemological alternatives, such as realism, conventionalism and symbolic interactionism.

If diverse ontologies and epistemologies serve as a guide to research approaches, including data collection and analysis methods, and if they should be regarded as skin rather than clothing, how does one make choices regarding case studies? What are case studies, what type of knowledge they provide and so on? The views of case study authors are not always explicit on this point, so we must delve into their texts to glean what their positions might be.

Two of the cited authors in case study research are Robert Yin and Kathleen Eisenhardt. Eisenhardt (1989) argues that a case study can serve to provide a description, test or generate a theory, the latter being the most relevant in contributing to the advancement of knowledge in a given area. She uses terms such as populations and samples, control variables, hypotheses and generalization of findings and even suggests an ideal number of case studies to allow for theory construction through replication. Although Eisenhardt includes observation and interview among her recommended data collection techniques, the approach is firmly anchored in a positivist epistemology:

> Third, particularly in comparison with Strauss (1987) and Van Maanen (1988), the process described here adopts a positivist view of research. That is, the process is directed toward the development of testable hypotheses and theory which are generalizable across settings. In contrast, authors like Strauss and Van Maanen are more concerned that a rich, complex description of the specific cases under study evolve and they appear less concerned with development of generalizable theory (Eisenhardt, 1989, p. 546).

This position attracted a fair amount of criticism. Dyer & Wilkins (1991) in a critique of Eisenhardt's (1989) article focused on the following aspects: there is no relevant justification for the number of cases recommended; it is the depth and not the number of cases that provides an actual contribution to theory; and the researcher's purpose should be to get closer to the setting and interpret it. According to the same authors, discrepancies from prior expectations are also important as they lead researchers to reflect on existing theories. Eisenhardt & Graebner (2007, p. 25) revisit the argument for the construction of a theory from multiple cases:

> A major reason for the popularity and relevance of theory building from case studies is that it is one of the best (if not the best) of the bridges from rich qualitative evidence to mainstream deductive research.

Although they recognize the importance of single-case research to explore phenomena under unique or rare circumstances, they reaffirm the strength of multiple case designs as it is through them that better accuracy and generalization can be reached.

Likewise, Robert Yin emphasizes the importance of variables, triangulation in the search for "truth" and generalizable theoretical propositions. Yin (2015, p. 18) suggests that the case study method may be appropriate for different epistemological orientations, although much of his work seems to invoke a realist epistemology. Authors such as Merrian (2009) and Stake (2003) suggest an interpretative version of case studies. Stake (2003) looks at cases as a qualitative option, where the most relevant criterion of case selection should be the opportunity to learn and understand a phenomenon. A case is not just a research method or strategy; it is a researcher's choice about what will be studied:

> Even if my definition of case study was agreed upon, and it is not, the term case and study defy full specification (Kemmis, 1980). A case study is both a process of inquiry about the case and the product of that inquiry (Stake, 2003, p. 136).

Later, Stake (2003, p. 156) argues that:

> [. . .] the purpose of a case report is not to represent the world, but to represent the case. [. . .] The utility of case research to practitioners and policy makers is in its extension of experience.

Still according to Stake (2003, pp. 140-141), to do justice to complex views of social phenomena, it is necessary to analyze the context and relate it to the case, to look for what is peculiar rather than common in cases to delimit their boundaries, to plan the data collection

looking for what is common and unusual about facts, what could be valuable whether it is unique or common:

Reflecting upon the pertinent literature, I find case study methodology written largely by people who presume that the research should contribute to scientific generalization. The bulk of case study work, however, is done by individuals who have *intrinsic* interest in the case and little interest in the advance of science. Their designs aim the inquiry toward understanding of what is important about that case within its own world, which is seldom the same as the worlds of researchers and theorists. Those designs develop what is perceived to be the case's own issues, contexts, and interpretations, its *thick descriptions*. In contrast, the methods of instrumental case study draw the researcher toward illustrating how the concerns of researchers and theorists are manifest in the case. Because the critical issues are more likely to be know in advance and following disciplinary expectations, such a design can take greater advantage of already developed instruments and preconceived coding schemes.

The aforementioned authors were listed to illustrate differences and sometimes opposing positions on case research. These differences are not restricted to a choice between positivism and interpretivism. It is worth noting that Ragin's (2013, p. 523) approach to "casing" is compatible with the realistic research perspective:

> In essence, to posit cases is to engage in ontological speculation regarding what is obdurately real but only partially and indirectly accessible through social science. Bringing a realist perspective to the case question deepens and enriches the dialogue, clarifying some key issues while sweeping others aside.

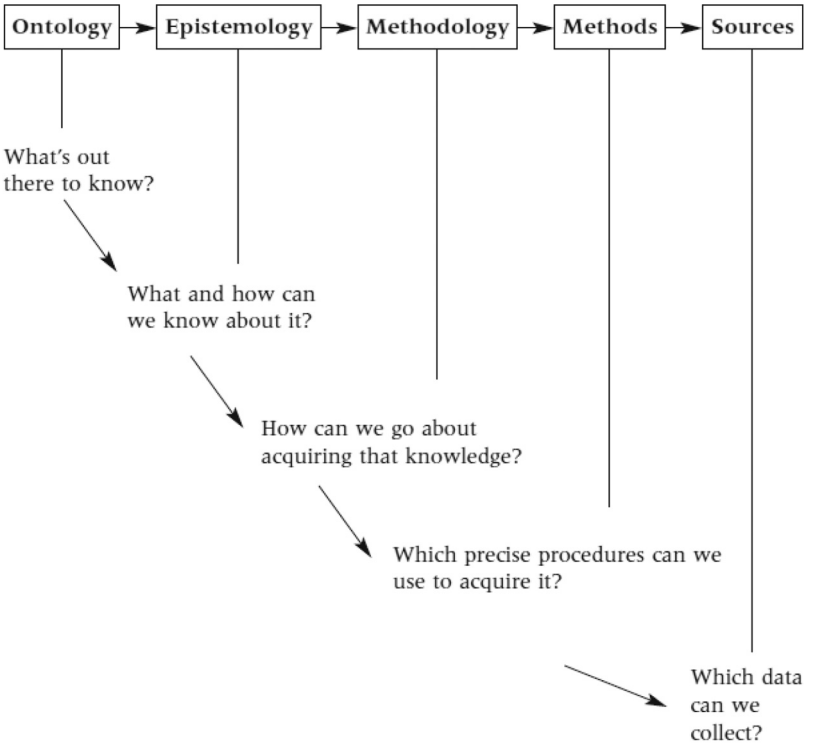
According to Ragin's distinction between "casing by outcome" and "casing by population," the former would be compatible with the realist epistemology, as it considers that:

- cases are actual entities, reflecting their operations of real causal mechanism and process patterns;
- case studies are interactive processes and are open to revisions and refinements; and
- social phenomena are complex, contingent and context-specific.

Ragin (2013, p. 532) concludes:

> Lurking behind my discussion of negative case, populations, and possibility analysis is the implication that treating cases as members of given (and fixed) populations and seeking to infer the properties of populations may be a largely illusory exercise. While demographers have made good use of the concept of population, and continue to do so, it is not clear how much the utility of the concept extends beyond their domain. In case-oriented work, the notion of fixed populations of cases (observations) has much less analytic utility than simply "the set of relevant cases," a grouping that must be specified or constructed by the researcher. The demarcation of this set, as the work of case-oriented researchers illustrates, is always tentative, fluid, and open to debate. It is only by casing social phenomena that social scientists perceive the homogeneity that allows analysis to proceed.

In summary, case studies are relevant and potentially compatible with a range of different epistemologies. Researchers' ontological and epistemological positions will guide their choice of theory, methodologies and research techniques, as well as their research practices. The same applies to the choice of authors describing the research method and this choice should be coherent. We call this research *alignment*, an attribute that must be judged on the internal coherence of the author of a study, and not necessarily its evaluator. The following figure illustrates the interrelationship between the elements of a study necessary for an alignment (Figure 1).



Source: Grix (2002, p. 180)

Figure 1. The interrelationship between the building blocks of research

In addition to this broader aspect of the research as a whole, other factors should be part of the researcher's concern, such as the rigor and quality of case studies. We will look into these in the next section taking into account their relevance to the different epistemologies.

4. Rigor and quality in case studies

Traditionally, at least in positivist studies, validity and reliability are the relevant quality criteria to judge research. Validity can be understood as external, internal and construct. External validity means identifying whether the findings of a study are generalizable to other studies using the logic of replication in multiple case studies. Internal validity may be established through the theoretical underpinning of existing relationships and it involves the use of protocols for the development and execution of case studies. Construct validity implies defining the operational measurement criteria to establish a chain of evidence, such as the use of multiple sources of evidence (Eisenhardt, 1989; Yin, 2015). Reliability implies conducting other case studies, instead of just replicating results, to minimize the errors and bias of a study through case study protocols and the development of a case database (Yin, 2015).

Several criticisms have been directed toward case studies, such as lack of rigor, lack of generalization potential, external validity and researcher bias. Case studies are often deemed

to be unreliable because of a lack of rigor (Seuring, 2008). Flyvbjerg (2006, p. 219) addresses five misunderstandings about case-study research, and concludes that:

> [. . .] a scientific discipline without a large number of thoroughly executed case studies is a discipline without systematic production of exemplars, and a discipline without exemplars is an ineffective one.

The five misunderstandings are:

(1) theoretical knowledge is more valuable than concrete, practical knowledge;

(2) the case study cannot contribute to scientific development because it is not possible to generalize on the basis of an individual case;

(3) the case study is more useful for generating rather than testing hypotheses;

(4) the case study contains a tendency to confirm the researcher's preconceived notions; and

(5) it is difficult to summarize and develop general propositions and theories based on case studies.

These criticisms question the validity of the case study as a scientific method and should be corrected.

The critique of case studies is often framed from the standpoint of what Ragin (2000) labeled large-N research. The logic of small-N research, to which case studies belong, is different. Cases benefit from depth rather than breadth as they: provide theoretical and empirical knowledge; contribute to theory through propositions; serve not only to confirm knowledge, but also to challenge and overturn preconceived notions; and the difficulty in summarizing their conclusions is because of the complexity of the phenomena studies and not an intrinsic limitation of the method.

Thus, case studies do not seek large-scale generalizations as that is not their purpose. And yet, this is a limitation from a positivist perspective as there is an external reality to be "apprehended" and valid conclusions to be extracted for an entire population. If positivism is the epistemology of choice, the rigor of a case study can be demonstrated by detailing the criteria used for internal and external validity, construct validity and reliability (Gibbert & Ruigrok, 2010; Gibbert, Ruigrok, & Wicki, 2008). An example can be seen in case studies in the area of information systems, where there is a predominant orientation of positivist approaches to this method (Pozzebon & Freitas, 1998). In this area, rigor also involves the definition of a unit of analysis, type of research, number of cases, selection of sites, definition of data collection and analysis procedures, definition of the research protocol and writing a final report. Creswell (1998) presents a checklist for researchers to assess whether the study was well written, if it has reliability and validity and if it followed methodological protocols.

In case studies with a non-positivist orientation, rigor can be achieved through careful *alignment* (coherence among ontology, epistemology, theory and method). Moreover, the concepts of validity can be understood as concern and care in formulating research, research development and research results (Ollaik & Ziller, 2012), and to achieve internal coherence (Gibbert *et al.*, 2008). The consistency between data collection and interpretation, and the observed reality also help these studies meet coherence and rigor criteria. Siggelkow (2007) argues that a case study should be persuasive and that even a single case study may be a powerful example to contest a widely held view. To him, the value of a single case study or studies with few cases can be attained by their potential to provide conceptual insights and coherence to the internal logic of conceptual arguments: "[. . .] a paper should allow a reader to see the world, and not just the literature, in a new way" (Siggelkow, 2007, p. 23).

Interpretative studies should not be justified by criteria derived from positivism as they are based on a different ontology and epistemology (Sandberg, 2005). The rejection of an interpretive epistemology leads to the rejection of an objective reality: "As Bengtsson points out, the life-world is the subjects' experience of reality, at the same time as it is objective in the sense that it is an intersubjective world" (Sandberg, 2005, p. 47). In this event, how can one demonstrate what positivists call validity and reliability? What would be the criteria to justify knowledge as truth, produced by research in this epistemology? Sandberg (2005, p. 62) suggests an answer based on phenomenology:

> This was demonstrated first by explicating life-world and intentionality as the basic assumptions underlying the interpretative research tradition. Second, based on those assumptions, truth as intentional fulfillment, consisting of perceived fulfillment, fulfillment in practice, and indeterminate fulfillment, was proposed. Third, based on the proposed truth constellation, communicative, pragmatic, and transgressive validity and reliability as interpretative awareness were presented as the most appropriate criteria for justifying knowledge produced within interpretative approach. Finally, the phenomenological epoché was suggested as a strategy for achieving these criteria.

From this standpoint, the research site must be chosen according to its uniqueness so that one can obtain relevant insights that no other site could provide (Siggelkow, 2007). Furthermore, the view of what is being studied is at the center of the researcher's attention to understand its "truth," inserted in a given context.

The case researcher is someone who can reduce the probability of misinterpretations by analyzing multiple perceptions, searches for data triangulation to check for the reliability of interpretations (Stake, 2003). It is worth pointing out that this is not an option for studies that specifically seek the individual's experience in relation to organizational phenomena.

In short, there are different ways of seeking rigor and quality in case studies, depending on the researcher's worldview. These different forms pervade everything from the research design, the choice of research questions, the theory or theories to look at a phenomenon, research methods, the data collection and analysis techniques, to the type and style of research report produced. Validity can also take on different forms. While positivism is concerned with validity of the research question and results, interpretivism emphasizes research processes without neglecting the importance of the articulation of pertinent research questions and the sound interpretation of results (Ollaik & Ziller, 2012). The means to achieve this can be diverse, such as triangulation (of multiple theories, multiple methods, multiple data sources or multiple investigators), pre-tests of data collection instrument, pilot case, study protocol, detailed description of procedures such as field diary in observations, researcher positioning (reflexivity), theoretical-empirical consistency, thick description and transferability.

5. Conclusions

The central objective of this article was to discuss concepts of case study research, their potential and various uses, taking into account different epistemologies as well as criteria of rigor and validity. Although the literature on methodology in general and on case studies in particular, is voluminous, it is not easy to relate this approach to epistemology. In addition, method manuals often focus on the details of various case study approaches which confuse things further.

Faced with this scenario, we have tried to address some central points in this debate and present various ways of using case studies according to the preferred epistemology of the researcher. We emphasize that this understanding depends on how a case is defined and the particular epistemological orientation that underpins that conceptualization. We have argued that whatever the epistemological orientation is, it is possible to meet appropriate

criteria of research rigor and quality provided there is an alignment among the different elements of the research process. Furthermore, multiple data collection techniques can be used in in single or multiple case study designs. Data collection techniques or the type of data collected do not define the method or whether cases should be used for theory-building or theory-testing.

Finally, we encourage researchers to consider case study research as one way to foster immersion in phenomena and their contexts, stressing that the approach does not imply a commitment to a particular epistemology or type of research, such as qualitative or quantitative. Case study research allows for numerous possibilities, and should be celebrated for that diversity rather than pigeon-holed as a monolithic research method.

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Corresponding author
Adriana Roseli Wünsch Takahashi can be contacted at: adrianarwt@gmail.com

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