

## Reflections on method in human sciences: quantitative or qualitative, theories and ideologies<sup>1</sup>

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**Abstract:** The goal of this study is to deconstruct the meanings of the terms “quantitative” and “qualitative”, usually used to characterize scientific research method, or to try to undo what seems to be a mistake: the denomination and division of quantitative or qualitative research methods. We consider that this division confuses and impoverishes the conception of knowledge or science. There are many methodological questions so plural, conflicting or not, according to the meaning of the investigated reality which, after all, is what should be discussed from the beginning to the end of the research. We add the theoretical or ideological designation of method to this discussion that for us represents another version of the same problem. To accomplish this goal, we discuss a view of science and a conception of thought.

**Keywords:** methodologies, science, human sciences, quantitative research, qualitative research.

### Introduction

The objective of this article is quite controversial, mainly because it opposes what seems to be an established framework in human sciences, mainly in psychology: the division between quantitative and qualitative research methods. And if it is not as ambitious as the *Against method* (Feyerabend, 1977)<sup>2</sup>, then this is because its objective and scope are much more modest. It only intends to retreat from major methodological systematizations, including this division between quantitative and qualitative, for such varied and challenging methodological issues as the empirical issues of this research.

Considering this objective, it is worth stating what this article is not focused on. The article is not aimed towards an archeology of human sciences, notably psychology, to explain any eventual and current methodological constraint, among which there is the division between quantitative

and qualitative research methods. Neither does it intend to present, even briefly, the different concepts of rationality and quantification in human sciences, or lab experiences in the history of psychology. That would be a task far beyond our scope here, and however interesting that might be, it is not our proposal. This study is situated in an arena that we would call more democratic and pluralist in face of the major establishments and approaches in the history of scientific thought.

It is merely about deconstructing the terms “quantitative” and “qualitative” used to define the scientific method, aiming to strengthen freedom of thought and the *focus on or rigor in the discussion about what matters* – problems that boost science – and the procedures used for its guidance. These procedures comprise quantification, but not as an identification of the method – which belongs to imagination and to the experiment rationale – nor as link and justification for empirical research data. The method is a *critical activity* of science, rather than a general formula or technique of research, as we intend to make clear further.

We will attach this discussion to the theoretical or ideological designation of method. To us, it is a different version of the same problem.

Therefore, it is about fighting or trying to undo what seems to be a mistake: the denomination of quantitative or qualitative research method that, we believe, mystifies the concept of knowledge or science. To the contrary, we would like to emphasize the many existing methodological issues, which are plural and controversial or consistent, depending on the sense of the reality surveyed. That is how we see the presentation of a method in Wallon, Vygotski, Piaget, Saussure, Lévi-Strauss, Marx, Freud, Durkheim etc., in line with their concepts or perspectives about the reality under study. We refer, therefore, to

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2 Feyerabend (1977) is one of the major science philosophers of the 20<sup>th</sup> century. He advocates for what he calls methodological anarchism. It is worth mentioning that in his discussion he approaches the scientific methodology of physics, which is probably the most recognized of our ways of knowledge. For our purposes, he states: “We see that the principles of critical rationalism (take falsification seriously; increase content; avoid ad hoc hypotheses; be ‘honest’ – whatever *that* means; and so on) and, a fortiori, the principles of logical empiricism (be precise; base your theories on measurements; avoid vague and unstable ideas; and so on) give an inadequate account of the past development of science and are liable to hinder science in the future. They give an inadequate account of science because science is much more ‘sloppy’ and ‘irrational’ than its methodological image” (page 278). For a very didactic introduction to the philosophical discussions on scientific methodology in the 20<sup>th</sup> century, refer to Chalmers, A. (2000).

method and theory built together in an investigation and in a circular or mutual way, so that one cannot exist without the other, or in a way that one cannot separate them, since a method assumes a question and a hypothesis or concept of reality. So, for example, if Freud advocates for the method of free association of ideas in his clinical theory as an investigation of the psychological reality, it is because he assumes such a reality through certain concepts of the unconscious, censorship or defense and their primary and secondary processes, which was created as hypotheses to answer a question. And if at the beginning of his theory, Freud used the method of hypnosis, it is also because he assumed that reality with an unconscious content, but not necessarily by highlighting the mechanisms of defense or censorship. It means to say that the very statute of the concept of unconscious in theory was different. More precisely, Freud started considering that unconscious representations resulted mainly from a psychic conflict between the individual's desire and morals, and no longer, as supposed by Breuer, from the individual's experience in a state of hypnosis or altered consciousness. This way, the free association of ideas aimed to circumvent the mechanisms of censorship of unconscious contents, or favor the flow of the primary process of the psyche under the domain of its secondary or conscious elaborations. For Freud, this hypothesis seemed to provide a better answer to the question under investigation.

Could one find, under the diversity of all theoretical and methodological perspectives in the history of human sciences, two perspectives that could be classified according to the qualitative or quantitative method of research? Would the fact that one cannot find such denominations of method in Marx, Freud, Piaget, Wallon, Vygotski, Lévi-Strauss, Max Weber, Durkheim and many other classic thinkers of human sciences not be relevant enough? Would all of them have overlooked this aspect that now divides methodological perspectives into qualitative or quantitative? We will discuss a hypothetical image of science and of a concept of thought in an attempt to advance some hypotheses on the reasons for such a division.

## An image of science

We will start from a hypothetical image of science based on physics to rethink the division between the quantitative or qualitative method of research in human sciences. In our view, such a division is even sharper in psychology. We hypothesize that a more adequate understanding of the sense of natural sciences as model of scientific activity, notably the one launched by modern physics, can serve to deconstruct the idea of quantitative method and, *pari passu*, of qualitative method. In other words, a certain image of science where the control of variables is not only strict, but is expressed in mathematical formulas – knowledge that is exact or, when probabilistic, still aimed at accuracy – might have favored some numerical fetishizing. The natural order of things or of

the phenomenon rigorously controlled and produce, i.e., assembled in lab according to invented and replicable models, can give the impression that what distinguishes scientific from non-scientific knowledge is the possibility of quantifying it and, *pari passu*, its methodology<sup>3</sup>. This is the main point of our discussion. We believe that some distinguishing features of this sort of knowledge should be made clearer.

First of all, we would like to emphasize or recall that quantification is not enough to build scientific knowledge, neither is it its main trait. There is the necessity to explain or show the order that links quantitative data, which enables talking about cause-effect relationships or the required initial and final conditions to the experience. In other words, particularly today, when there is an apparent shortage of reflection and when psychology – but not only psychology – is reduced to the production of data at the expense of critical analysis, therefore to the detriment of theory itself, we should bear in mind that quantification in science is part of a principle of explanation or understanding of the phenomenon. Ultimately, a number alone has no meaning. A number only acquires meaning in an analytical context of sense. This thesis does not seem to be (or should not be) subject to contention. It can serve as the supporting point to the beginning of our discussion, because the activity that will organize the accomplishment of this analytical context of sense that comprises quantification will be named method of research.

For this reason, we would firstly like to emphasize (keeping in mind that we are dealing with an image of natural sciences) that the experience created and replicated in labs is organized by a theoretical model of investigation that works on some hypotheses regarding reality. In other words, it is not a free or spontaneous observation because it is driven by certain questions and hypotheses about reality. One could say that this principle, which emphasizes the active and organizing role of thought in scientific investigation, is shared by most philosophers of science in the 20<sup>th</sup> century.

For example, Popper – contemporary to the theory of the physics of relativity – dealt with the provisional trait of scientific knowledge, while Kant – contemporary to Newton – believed that scientific knowledge could only be improved, but never replaced or rebutted. However, prior to Popper (1963/1994), Kant (1781/1989) had already covered this issue – we could also mention Kuhn's (1962/2009) notion of paradigm –, that reason only learns with nature by forcing it to give answers to reason's questions, following

3 In the strict sense of the term, methodology is the study of the method. So, while method has a more positive or determined nature, methodology's nature is more general, abstracting from method its essential traits. For the purposes of this article, the differentiation between the terms "method" or "methodology" does not matter, neither does their variation with the term "research" (quantitative or qualitative). What effectively concerns us are the adjectives "quantitative" and "qualitative" to designate method, methodology or research in the light of the meaning of scientific activity.

thought-out plans. According to Kant (1781/1989) in the preface of *Critique of pure reason*:

When Galileo caused balls, the weights of which he had himself previously determined, to roll down an inclined plane; when Torricelli made the air carry a weight which he had calculated beforehand to be equal to that of a definite volume of water... a dawn broke upon all students of nature. They learned that reason only has insight into that which it produces after a plan of its own, and that it must not allow itself to be kept, as it were, in nature's leading-strings, but must itself show the way with principles of judgment based upon fixed laws, constraining nature to give answer to questions of reason's own determining. Accidental observations, made in obedience to no previously thought-out plan, can never be made to yield a necessary law, which reason alone is concerned with discovering. (p. 18)

Or also,

Reason, holding its principles in the one hand, according to which alone concordant appearances can be admitted as equivalent to laws, and, in the other hand the experiment which is devised in conformity with these principles, must approach nature in order to be taught by it. It must not, however, do so in the character of a pupil who listens to everything that the teacher chooses to say, but rather as an appointed judge who compels the witness to answer questions which he himself has formulated. (p. 18)

Only for clarification purposes (we do not wish to introduce Kant's philosophy), among the principles that guide reason in its judgment about nature, as referred by the author, is determinism, the concept that natural phenomena are linked according to relationships of necessity, which makes it possible to state these relationships in laws. It is the concept of "nature" itself, founded in modernity. What really matters to us here is that this principle is not applicable without a plan, i.e., without imagining and assembling an experiment on the hypotheses about certain natural relationships, as in the examples cited above of Galileo and Torricelli. Here, what is more important in these examples is to emphasize the assembling of the experiment, i.e., the *method* to verify the hypothesis or answer the scientist's question before nature; in the method, quantification is *just* one of its elements or procedures.

Merleau-Ponty (1949-52/1988) is another philosopher who also highlights this role of active and creative thought in science. He did not overlook some of the main issues highlighted by Kant regarding scientific activity when he states:

Paradox of science is that in order to understand the concrete, we must begin, in a sense, by turning our backs to it. Galileo had to reconstruct the givens of the senses by an intellectual step. When, on the contrary, the desire is to notice the fact directly (for instance, how Aristotle noted the natural link of heavy bodies), one is led to abstractions. Science commences the day that, instead of passively noticing, it reconstructs appearances, thus giving itself models of reality. (free translation, p. 486)

It is worth noting that Merleau-Ponty reverses the ordinary concept about the difference between abstract and concrete precisely to highlight the importance of the model in the intellectual reconstruction of appearances or data of senses. Simple observation does not lead to knowledge about reality. Here, being the closest to it, i.e., the sensitive appearance is farther from knowledge in terms of reality. It is farther because it assumes the creation of an intellectual model of reality, i.e., the reconstruction of data of sense, turns out to be closer to its knowledge.

In this sense, Bachelard (1934/1985) employs the term *phenomeno-technique* to emphasize the artificial nature of scientific experiments, i.e., that which produces its phenomenon as experimentation. Latour and Woolgar (1979/1997) emphasize how the simple presence of technical devices in a research lab represents reified theories used to build new scientific facts. In other words, these theories are incorporated into devices with no further discussion, as if they represented reality, and are used to investigate new lab phenomena, which, in turn, lead to new facts and materials. For example, the telescope used by Galileo to observe the sky assumed the theoretical model of the optical physics it contained – which, incidentally, raised much discussion at the time – and led to the discovery of new celestial phenomena (Furlan, 2008). Thus, science becomes the model of a complex theoretical and instrumental network about reality.

Finally, according to Heidegger (1938/2001), we could say that technique is at the heart of modern science, which aims to control and manipulate nature, hence the need for measurement or quantification as expressed in mathematical equations. So, from the perspective of ethics or of the evaluation of a way of life, we could question the impact of the supremacy of this kind of human view or behavior on life, a subject we are not addressing here. What cannot be done is to confuse the *intellectual assembling* of the scientific experience, of which measurement is part, with the quantitative method. That would be like taking the part as the whole. The method, as we emphasize, belongs much more to *imagination and invention of experience* than to the quantification of its variables, which are attached to imagination and invention. Here, it is worth mentioning the anecdote by Popper (1963/1994) that he started a conference in Vienna by asking the physics students to take their pencils and paper and carefully observe and record their observations. The students

naturally asked him what he wanted them to observe. After all, observe what, for what purpose? The same holds for quantification and measurement: *without a principle of selection and linkage*, they will lead nowhere. Or, with regard to observation, this shortage may lead to mysticism or to experiencing the sublime, according to Kant. Or, according to phenomenology, it could lead to the primordial ground of our pre-reflexive experience of the world, i.e., to the transcendental field of senses. Or, according to the philosophies of Nietzsche and Deleuze, it could lead to the transcendental field of forces and intensities.

But this, however important, is not creating science. Science will always be a (limited) plan of understanding reality, built from a principle of selecting and linking variables, which can comprise quantification. The mathematization of nature could even be the objective of knowledge, representing a very reductive principle of knowledge which proved powerful for the manipulation or control of reality (the principle of technique, as mentioned with Heidegger). Quantification, however, can only be considered as a method as much as observation can; i.e., *it cannot*, as long as it is not subjected to, or inserted into, a plan to build knowledge, or, in other words, as long as it does not justify the elaboration of a method with hypotheses about reality.

So, once suspicion is cast on the pertinence of the quantitative method to designate scientific methodology (here based on one of the most well-established models of science, i.e., physics), the same occurs to the notion of the qualitative method, which only makes sense in opposition to the quantitative method. After all, the qualitative method only exists in opposition or criticism to the quantitative. In other words, quantification is not enough to understand or explain a phenomenon. But that is what we have just seen.

This can be illustrated by Ginzburg's (1976/2006) preface to the Italian edition of his work, *The Cheese and the Worms*. Here, he investigates the everyday life of a miller named Menocchio. The miller lived in the 16<sup>th</sup> century, in the north of Italy, and had his ideas persecuted by the Inquisition. Ginzburg works on the documents the Inquisition produced on Menocchio. He justifies his research through several theoretical and methodological discussions that are always interconnected. It is worth noting that the author does not intend to deny or oppose the dichotomy between quantitative and qualitative research – which we do – although his result seems to be exactly that. For our purposes, we start with a passage where he uses the metaphor of a computer to identify the spirit of quantitative research:

With this, it is not my intention to pass judgment on qualitative versus quantitative research; quite simply, it must be emphasized that, as far as the history of the subordinate classes is concerned, the precision of the latter cannot do without (cannot do *yet*, that is) the notorious impressionism of

the former. E.P. Thompson's telling remark about "the gross reiterative impressionism of a computer, which repeats the conformity *ad nauseam* while obliterating all evidence for which it has not been programmed" is literally true in the sense that the computer, obviously, executes but does not think. On the other hand, only a series of specific in-depth investigations may permit the development of an articulate program to be submitted to the computer. (p. 21)

The example seems quite illustrative of our discussion. After all, someone must think as the computer programmer does, who, as Ginzburg concludes, must be capable of highlighting and articulating significant data to the question under investigation. This, in turn, implies a theory and a hypothesis on reality (just as Galileo and Torricelli did, in our aforementioned citation of Kant). The programmer, we could add, must also be capable of reprogramming the computer if reality so demands, as many times as required. Other researchers, following the same line of research, should do the same to prevent the risk of "impressionism" of the computer or, we might say, of its "subjectivism". It is a curious or unusual inversion of terms, but one that actually points out that behind the rigidity of a concept there is the exaggerated presence of a given way of looking at and conceiving reality.

The meaning of "notorious impressionism of qualitative" is also worth highlighting in the quotation. Ultimately, it means *lack of empirical foundation, or a speculative nature without the due empirical counterpart*. Therefore, assuming that the qualitative method opposes the quantitative, in the perspective that quantification is not enough to explain a phenomenon, we have the motivational background for the dispute between the quantitative or qualitative research methods. Here, the "qualitative" accuses the lack of "thought" in the "quantitative", and the latter, in turn, claims that there is an "excess" of extremely speculative thought in the "qualitative" method. In other words, all this is nothing but a disagreement about the sense of the object or reality investigated. And this sense of the investigated object or reality is what should be discussed from the beginning to the end of the research, but it is mistakenly reified through the qualitative and quantitative terms. Besides being instigating, is Ginzburg's aforementioned research work empirically well-grounded? This is the point.

On the other hand, Ginzburg refers to the history of ideas, which, according to him, has conducted broad quantitative surveys of the ideas found in a given time and place. However, it does not ask questions regarding the effective use of this written material by the poorest. Menocchio is a very singular example of this, since he not only used to read more erudite texts, but he also conjugated them in an original way with his oral tradition.

Ginzburg's criticism of quantitative research in the history of the ideas does not refer exactly to quantification

procedures, which, in fact, are found in any empirical research, in one way or another. In the case of Menocchio, Ginzburg himself works on a set of documents written by the Inquisition and others written by the defendant. The mistakes highlighted by Ginzburg Ginzburg always refer to a given conception of historical reality, which, in this case, is due to the fact that the history of ideas does not consider the reader's role in relation to the written word.

His criticism of the history of mentalities follows the same direction. According to Ginzburg, Lucien Febvre is a case in point of the history of mentalities. The history of mentalities presupposes a spirit that is typical of that time and that underlies the history of ideas, as it incorporates habits and unconscious meanings to the research. Thus, it has a broader meaning or a meaning that is closer to reality, whereas the published ideas are only a quite incomplete or particular manifestation of the same reality. However, according to Ginzburg, the history of mentalities still assumes a homogeneous reality to different social classes, concealing their differences.

The notion of popular culture – which is the object of his research – at least avoids this inter-class homogenizing extension. The author insists that he is not unaware of the broad scope of the term and that there are differences, for example, between rural and urban populations. The challenge here is the access to the past of this mainly oral culture. Anthropologists have access to it when studying the present, while historians cannot go back to the past and witness the orality of ancient cultures. But historiographical research has partially circumvented this problem as it starts to have access to more popular publications such as the *cordel* literature, which at least represents a set of ideas that circulated among the subordinate classes of the population.

It is in this perspective that Ginzburg also finds in the Inquisition's archives about Menocchio a direct material regarding the popular culture of that time. Obviously, because Menocchio can read and write, he is not a manifestation of pure popular culture as he is pervaded by the ideas of the literate elite. However, to Ginzburg, this is not exactly a problem, because his aim is not to isolate one culture from the other (popular and erudite), but rather to understand the circulation between them. Neither is it a matter of disregarding the broader context evidenced by the case. A highlight in that context is the press expansion – that allowed easier access to written materials – and the Reformation movement – which fostered the boldness to talk about and express his religious ideas. It is also worth noting that the Counter-Reformation worsened the repression of freedom of speech, which eventually caused Menocchio to be burnt by the Inquisition.

None of these questions refer to quantification. Ginzburg only challenges it regarding its assumptions about historical theory, more specifically regarding what is *not* considered from a theoretical viewpoint of reality. This is what he is really concerned with, and is what he tries to discuss in his preface. Thus, the terms “quantitative” or

“qualitative” used to designate the research method can be considered a reification of theoretical and epistemological concepts, while discussions regarding such concepts are left aside. These resemble archeological remainders which are taken *per se*, separated from the living thought in which they participated with their hesitations and bets that are susceptible to abandonment or development. This means that what is at stake in using or abandoning the terms quantitative or qualitative in research projects is the prerogative of dead or living thoughts. In other words, which emphasis will be privileged in the research, i.e., the technical one – taken as a method – or the method, always attentive to the logic of its articulation with the issue.

In sum, any empirical datum is always a construction in function of the question that highlights it. Therefore, it does not give up the singularity of the view and thought of the researcher (like in the examples of Galileo and Torricelli, quoted by Kant, or of the computer programmer, quoted by Ginzburg). Or, as Lenclède (1991) emphasizes about the ethnographic method – and, to us, this is also valid for natural and human sciences in general –, the ethnographic document “is ‘created’ by the *questioning* that gave rise to it and by the *operation* that isolated it from practice to promote it into a knowledge instrument” (free translation of page 475, emphasis added). Obviously, this is also applicable to data of statistical measurements and analyses of empirical research in the human sciences. These can be important means for investigating reality, provided the researcher is not charmed by its apparent objectivity (Boudon & Bourricaud, 1982, p. 370), because what matters is to *discuss the adequacy and scope or limits* of data related to the question to be answered. That is why the method is not reduced to a quantification technique, which leads Boudon and Bourricaud (1982) to emphasize that the method is, par excellence, “explanation of text” (p. 369), i.e., discussion and justification of procedures for guiding the investigated issue.

## A concept of thought

Another way to approach the issue of the division between quantitative and qualitative research methods in human sciences, notably in psychology, is to highlight what seems to be a general retreat of the activity of thinking. Then we can see that the problem we are dealing with is broader than the simple division between qualitative or quantitative research methods. After all, an analogous situation can take place with any theoretical or ideological denomination of a method added to the research, such as the “positivist” (today, generally used by its critics, i.e., applied to other people's research), the “phenomenological”, “Marxist”, “psychoanalytical” etc., whatever all this could mean from the methodological point of view. This is very much thanks to the generality of each of those perspectives, including the diversity of the perspectives in the heart of each of them and, many times, in the history of the same author's thinking. Hence, if potential identity reactions to

the contrast of the division established between quantitative and qualitative research methods were not enough, here we add the risk of resistance by those that fit their research into some current of thought.

We would like to convince, or at least invite people to think that such identifications, rather than fostering good research experiences, could be a way of limiting one's thoughts. Well, if we added questions related to theoretical or ideological designations of method to the issue of division between quantitative and qualitative research methods, it is because we view in the former another version of the same problem as in the latter. After all, what could one expect from such statements? To top the question or problem with a certain approach of sense that, and this should be emphasized, does not even ensure an appropriate use, given its general nature?

It *definitely* does not mean that such research approaches cannot be valuable or present when considering the question. We should bear in mind that no one begins a research project completely empty, or that any research brings a given theoretical perspective or view (cf. Furlan, 2008), just like method and theoretical perspectives are built together, as aforementioned. However, it seems inadequate to confound the generality of a theoretical perspective with the accuracy or delimitation of a methodological procedure that any empirical research should have. Hence, if in principle we brought method closer to theory, now we would like to make a distinction that seems crucial to conduct any empirical research. A method presupposes *control of procedures*, as in the examples of Galileo and Torricelli mentioned by Kant in the preface to the *Critique of pure reason*, or the examples we gave of the methods of hypnosis or free association of ideas in psychoanalysis. Therefore, a method can be *applied* to reality.

In contrast, a theoretical perspective is a way of investigating reality that merges with the "glance" of the researcher or with the researcher himself. Put differently, *stricto sensu*, marxism, psychoanalysis, phenomenology, constructivism, socio-constructivism, schizoanalysis or any other current of thought cannot be applied to an empirical research, although the researcher can "be" marxist, psychoanalyst, phenomenologist, constructivist, socio-constructivist, schizoanalyst, etc., in investigating reality, and then employ, according to such schools of thought, the procedures or methods considered suitable to that research of reality. In fact, we are usually a "mix" of theoretical perspectives that are as inseparable as – paraphrasing Descartes – the substantial union between "body and soul". It does not mean there are no stars with different magnitudes, as Merleau-Ponty says about the importance of others in building our subjectivities (1964).

However, we should not confound the great theoretical perspectives that, by definition, are open, despite the design that differentiates one from the other, with the application of a method that, by definition, should be accurate (and "accurate" does not mean static, not subject to adjustments or not demanding other types

of procedures). Psychoanalysts, for example, will find in their "object" of study methodological procedures that enable the emergence of unconscious senses under the symptom experienced. Which are these procedures? It is the researcher's imagination that should develop them, such as Freud does with the free association of ideas on the divan, in accordance with his theoretical assumptions. Each psychoanalytical current can outline one procedure or another according to its specificity in relation to the other ones (e.g., certain games or play activities for child psychoanalysis). A Marxist will find procedures that can bring to light social contradictions in the production of human reality under the discourse or manifested sense of the facts, and according to their specificity in relation to other Marxist currents. A phenomenologist, in turn, will find procedures that can help to highlight senses and describe them free of any previous theory, according to the "method of *epoché*" (suspension of judgments), as advocated by Husserl.

The radicalism of the phenomenological proposal, intended to position itself prior to any theory or concept of reality, seems to be privileged to place us in the heart of the discussion. After all, is such a suspension of judgments possible? Or, to what extent is such a suspension of judgments possible? Why, as Merleau-Ponty (1945/1994) states in the preface to the *Phenomenology of Perception*, is phenomenology recognized by an inchoative style or movement of thoughts rather than by "a doctrine or a system"? (p. 20). What method is that but the general prescription to describe the perceived meaning (*sens*) rather than explaining it according to accepted theses on reality?

According to the main perspective that Merleau-Ponty (1945/1994) teaches us in the same work, we can add that if we could suspend all of our theses, as advocated by Husserl, even then, with any single movement to say the meaning (*sens*) of what we see or perceive, we would already be in the implicit field of meanings (*sens*) we have about the world. This is why the phenomenological reduction is an endless process. We do not have to be a follower of Merleau-Ponty to embrace this thesis. The author himself, by the way, would not give up the *mediation* of science research to unveil the meaning (*sens*) of reality (therefore, to conduct his own phenomenology). In other words, an author who would not give up research that went *beyond* the precept of simple description of phenomena and advanced hypotheses and models on reality.

If we simply observe works and perspectives of the different authors in the phenomenological current, we will be convinced that such terminological generality is not *tout court* applicable. This also holds for psychoanalysis, marxism or any other theoretical or ideological current of thought.<sup>4</sup> And it holds simply because we cannot separate ourselves from the implicit meanings (*sens*) we have of the

4 By ideology we mean a coherent set of ideas to explain or understand the world.

world as if we were taking off one shirt and putting on another, or changing the lenses of our glasses, as is usually said about the currents of thought we use to think about reality, because here we are talking about the body itself or the eye itself. We might, if we like, assume the existence of both definitions of methods. One that is more general (theoretical or ideological), as a *way or style of thinking*, i.e., of selecting and linking variables in the light of the theoretical perspective. The other, more specific, justifies and accurately defines its procedures and determines, in a restricted way, the fate of a research (so many research works have achieved surprising results only because of the genius of the researcher when assembling an experiment!), always bearing in mind its intrinsic relationship with the theorization of reality, i.e., the instable or dialectic game<sup>5</sup> of their mutual determinations.

For purposes of clarity, we reserved the denomination of research method to the latter concept. We do so because it is through this concept that one can *concretely* conduct the development of the question to be researched, i.e., the technical or practical procedures through which one tries to answer the research question: interviews, observations, statistical procedures, etc., in their different modes and situations. And if we reserve the denomination of method to the *conduction* of the concrete research procedures that can be controlled when confronting the question – which, *per se*, explodes the binary division between the qualitative or quantitative research methods –, then one cannot understand method as technique because, as we have demonstrated throughout this paper, thought is always in the instable or dialectic relationship between those procedures and the theoretical field wherein they are situated.

This is the point we would like to stress: the need to prevent the risk of emptying the theoretical discussion implicit in any methodological procedure. To put it another way, a method is never ready and, therefore, is not a simple technique. Rather, the use of a technique is justified *in the* method, just like its justification in research is part of the method, depending on its hypotheses about reality.

To conclude this point about the theoretical-methodological heritage that grounds our way of thinking about reality, we believe it deserves a longer citation of what Merleau-Ponty (1960/1984) says about what he inherited from Husserl's thought. For us, it is also valid for all classic thoughts of human sciences that we mention herein:

Tradition means the forgetting of its origins, the aging Husserl used to say. Precisely because we owe him so much, we are in no position to see just what belongs to him. With regard to a philosopher whose

venture has awakened so many echoes, and such an apparent distance from the point where he himself stood, any commemoration is also a betrayal (...). But Husserl was well aware of these difficulties – which are problems of communication between “egos” – and he does not leave us to confront them without resources. I lend myself to others; I create others from my own thoughts. This is no failure to perceive others; it is the perception of others. We would not overwhelm them with our importunate comments, we would not stingily reduce them to what is objectively certified of them, if they were not for us to begin with. Not to be sure with the frontal evidence of a thing, but installed athwart our thought and, like different selves of our own, occupying a region which belongs to no one else but them. (p. 239)

To subsequently complete that it is impossible, even by right, to separate, at each moment, what belongs to the thought of each one:

The reason why we think that interpretation is restricted to either inevitable distortion or literal reproduction is that we want the meaning of a man's works to be fully positive and by rights susceptible to an inventory which sets forth what is and is not in those works. But this is to be deceived about works and thought. (page 241)

Obviously, an empirical research is not a comment about a work. However, when one intends to use it as theoretical-methodological principle, it is subject to the same kind of dialogue as mentioned by Merleau-Ponty concerning philosophical thought. Therefore, as we have exposed, it cannot be duly applied as a method simply because theory is not an object for our thought, an idea that we can manipulate and adjust to reality, as with our empirical research procedures. In other words, it is more in us (transversely, according to the citation) and in a “confused” way (cf. Merleau-Ponty, 1951/1991), i.e., in communication with other works, more than in front of us and subject to manipulation.

But all this is just the formal aspect of our question, which, in our view, does not support neither the empty generality of the terms “quantitative” or “qualitative” (which have little meaning) nor the concept of a method where procedures cannot be defined and *controlled*, as in the case of theoretical or ideological currents. It is just the formal aspect because what matters in research is, first of all, to think freely and with an open spirit about the question to be researched. This should not be confused with a lack of the theoretical and empirical rigor required in any research. Quite the opposite, this rigor should be a consequence of the freedom and openness of spirit, of the respect for the singularity and complexity of any phenomenon.

<sup>5</sup> By dialectic we mean, just like Merleau-Ponty (1964, pp. 124-128), the instable thinking in contact with the being: “the instable dialectic, in the sense assigned by chemists to the word... One of the tasks of dialectic, as thought about a situation, thought in contact with being, is to shake false evidence, denounce meanings cut off from the experience of being, emptied, and criticize itself as it becomes one of them... It must be self-critical” (free translation of page 124).

There are many potential perspectives to develop a question<sup>6</sup>, but whatever the perspective, it should be to the service of exercising thought in the investigation. That is to say that previous theoretical-methodological perspectives should not subdue thought, which would mean to enclose it in the thinking of someone else who effectively thought to elaborate a problem. This statement does not underestimate the importance of reading classic works to think about reality and conduct research in human sciences.<sup>7</sup>

Generally speaking, theoretical-methodological perspectives, considering the questionings and exceptions about their identity and use, emerge *immanent* to the research, like a force to open and apprehend the meaning (*sens*) of world, in their analytical capacity of developing the question, rather than as labels stuck on the presentation of the method (by the way, how many works have not betrayed, in form and content, the theoretical-methodological perspective that they promised, which just goes to show, as said earlier, that this cannot be *tout court* applied).

To put it differently, one can “be” marxist, psychoanalyst, phenomenologist, foucauldian, socio-constructivist, schizoanalyst, etc. or, as *we would rather say*, we are a style or a given way of perceiving, feeling and saying reality. But this should favor openness rather than closure in our experience of the world. Indeed, the importance of language on the way the world is perceived already seems a datum. In this sense, as Feyerabend (1977) highlights, “languages and the reaction patterns they involved are not merely instruments for *describing* events (facts, states of affairs), but that they are also *shapers* of events (facts, states of affairs)” (page 349). In the specific case of science, it is what Kuhn (1962/2009) called paradigm, and Deleuze and Guattari called partial or scientific observers (1991) to emphasize the intrinsic link between perception and language, or between a certain form of sensitiveness and the scientific elaboration of the world. *However*, what matters is that such sensitiveness should also be open enough to prevent being subdued by the determination of concepts, and vice-versa, concepts should be open enough to prevent being subdued by certain perception patterns, otherwise, thought would lose its power or capacity of exploitation.

This means that we should not attach priority to one of these faculties (perception, feeling and speech) nor consider them as separated in building knowledge, because they pervade each other and are mutually constituted. More specifically, what matters is not to conceive the communication between these faculties exclusively from the point of view of their agreement in the process of knowledge, but also from the point of view of their tensions or disagreements that challenge us to new arrangements between our language and perception of the world or, simply, that challenge us to think.

6 Perspective means the concentration of the view on a given direction, the source of its power to unveil meaning, but also of its limitation - anyway, what would be a view with no perspective?

7 In this respect, refer to Furlan (2012, p. 212).

In sum, besides exposing and justifying the concrete methodological procedures through which one intends to deal with the question, which already brings many theoretical implications about reality, to state that the method is quantitative, qualitative, Marxist, psychoanalytical, schizoanalytic, phenomenological, socio-constructivist, etc. will add nothing from the epistemological point of view, whether because of the empty meaning of the terms “quantitative” or “qualitative”, or because of the uncontrolled generality of the terms of theoretical or ideological currents. Moreover, it can jeopardize the freedom or the full exercise of the act of thinking in research.

At worst, these denominations aim to protect a research from its weaknesses. It is as if the first two terms represented methodological options that should be respected (but they should not), and the other terms summoned the authority of imaginary allies to remedy their shortcomings, as if, by reading such research, we should also suppose what Marx, Freud, Husserl, Foucault, Piaget, Vygotsky, etc., wrote (not to mention when such methodological denominations are just a compliance with the protocol imposed by some academic tradition of doing science).

In this perspective, the occasional necessity to name what is being done can be amazing. It is a question that obviously paves the way for broader reflection that exceeds the scope of this article. Nevertheless, we would like to stress that it is a potential symptom of a retreat of thought or avoidance of the necessity to think<sup>8</sup> – in this case, retreat from the necessity to *soundly justify* the method in its *tense or dialectic relation with the question researched* (its adequacy, scope and limitations). Therefore, as subterfuge to get rid of bothersome problem.

Finally, and as we started this article by excluding the terms “quantitative” or “qualitative” or the terms of “theoretical currents” or “ideological currents”, we propose a *terminological* cleaning or economy in the denomination of research methods. That would both comply with the meaning of scientific activity, and keep the focus on what matters, which should sharpen the need for method justification in any research. An economy, therefore, to improve clarity and increase the necessity to think.

8 We find in Proust (1913/1987) an interesting parallel to this question when, recalling his childhood, he says that after reading for long hours, he used to go for a walk. As his body was excited with so many ideas, he used to strike things around with his umbrella or walking stick, with “happy screams and had not yet reached a condition of full clarity, choosing, instead of a slow and painful path to clarification, the pleasure of an easier derivation for immediate escape”. To supplement: “Most of these alleged translations of our feelings do nothing but *disentangle us* from them, making us leave ourselves under an unclear form that does not teach us to know our feelings (free translation of pages 152-153, emphasis added).

### **Reflexões sobre o método nas ciências humanas: quantitativo ou qualitativo, teorias e ideologias**

**Resumo:** O objetivo deste ensaio é desconstruir os termos “quantitativo” e “qualitativo” usados para caracterizar o método de pesquisa científica, ou tentar desfazer o que nos parece um equívoco: a denominação e divisão de método quantitativo ou qualitativo de pesquisa, que para nós mistifica e empobrece a concepção de conhecimento ou ciência. Há muitas questões metodológicas, tão plurais, conflitantes ou não, conforme o sentido da realidade investigada, que, afinal, é o que tem que ser discutido, do princípio ao fim da pesquisa. Atraremos a essa discussão a designação teórica ou ideológica de “método”, que para nós representa outra versão do mesmo problema. Para alcançar esse objetivo, discutiremos determinada imagem de ciência e concepção de pensamento.

**Palavras-chave:** metodologias, ciência, ciências humanas, pesquisa quantitativa, pesquisa qualitativa.

### **Réflexions sur la méthode dans les sciences humaines: quantitative ou qualitative, théories et idéologies**

**Résumé:** L'objectif de ce travail est de déconstruire les termes quantitatifs et qualitatifs utilisés pour caractériser la méthode de recherche scientifique, ou d'essayer de défaire ce qui nous semble être une erreur: la dénomination et division de la méthode de recherche quantitative ou qualitative, ce que, à notre avis, mystifie et appauvrit la conception de la connaissance ou de la science. Il y a beaucoup de questions méthodologiques, tellement plurielles, contradictoires ou non, en fonction du sens de la réalité de l'enquête, ce qui est en fait ce qui doit être discuté, du début à la fin de la recherche. Nous ajoutons à cette discussion, la désignation théorique ou idéologique de la méthode, qui pour nous représente une autre version du même problème. Pour atteindre cet objectif, nous discutons une certaine image de la science et conception de la pensée.

**Mots-clés:** méthodologies, science, sciences humaines, recherche quantitative, recherche qualitative.

### **Reflexiones sobre el método en las humanidades: cuantitativo o cualitativo, teorías e ideologías**

**Resumen:** El objetivo de este trabajo es deconstruir los términos cuantitativos y cualitativos utilizados para caracterizar lo método de investigación científica, o intentar deshacer lo que nos parece un equívoco: la denominación y división de método de investigación cuantitativa o cualitativa, que a nosotros mistifica y empobrece la concepción de conocimiento o ciencia. Hay muchas cuestiones metodológicas, tan plurales, conflictivas o no, dependiendo del sentido de la realidad investigada, que en definitiva es lo que tiene que ser discutido, desde el principio hasta el final de la investigación. Añadimos a esta discusión la designación teórica o ideológica de método, que para nosotros representa otra versión del mismo problema. Para lograr este objetivo, discutiremos una cierta imagen de ciencia y concepción de pensamiento.

**Palabras-clave:** metodologías, ciencia, ciencias humanas, investigación cuantitativa, investigación cualitativa.

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## Erratum - Filiação Institucional

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