

## **Methodological issues on feminist epistemologies: discussing their ideological and political agendas in relation to the resolution of specific scientific research problems**

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### **Resumo**

Os termos epistemologia e feminismo são aplicados a um heterogêneo grupo de estudos e perspectivas metodológicas. Todos eles advogam não ser possível determinar uma teoria do conhecimento, se forem ignorados os contextos sociais e políticos desse conhecimento.

Neste manuscrito, discutimos o carácter ideológico e político das epistemologias feministas. Focamos a nossa atenção nas suas fraquezas, através da inexistência de uma demarcação filosófica particular do género, com métodos e teorias genuinamente científicas, que sustentam cada um dos paradigmas epistémicos.

### **Palavras-Chave**

Epistemologia; Epistemologia feminina; Género

### **Abstract**

The term feminist epistemologies is applied to a heterogeneous group of studies including a wide range of perspectives, relating both to epistemology and feminism. All these studies hold that it is not possible to have a general theory of knowledge, if we ignore the social context of the subject of knowledge.

In this paper we discuss the eminently ideological and political character of feminist epistemologies. We draw attention to their weakness in terms of their lack of demarcation of a particular gender philosophy, of genuine scientific theories and methods activating each of the epistemic paradigms.

## Key words

Epistemology; Feminist epistemology; Gender theory.

## 1. Introduction

The term feminist epistemology is applied to an heterogeneous group of studies including a wide range of perspectives, concerning both epistemology and feminism. All of them challenge some basic presuppositions of traditional epistemology, as they argue that is not possible to have a general theory of knowledge if we ignore the social context of the subject of knowledge. Whereas traditional epistemology visualises the subject as an abstraction with universalistic and uncontaminated mechanisms of thought and perception, feminism holds that the subject is the historic and particular individual whose body, feelings, expectations reason are shaped by his/her specific historic context. Hence the individuals' historic context is relevant in relation to feminist epistemologies.

The relevance of this approach to the subject of knowledge lies in the fact that knowledge is always situated (Haraway, 1991). This means that knowledge is always conditioned by the subject and his/her particular situation (space, time, history, culture and society) and its standards of justification are always contextual. From the situated character, the connection between knowledge and power is derived. The political commitment with social change is one of the main agendas of feminist epistemologies and also one of the chief features of other kinds of theories of knowledge such as Kuhn or Lakatos.

In this paper we discuss the eminently ideological and political character of the feminist epistemologies' proposals. We argue that they express weakness in the demarcation of methods underlying their epistemic paradigms. Therefore, the theoretical construction of gender studies does not satisfy the scientific criteria required by the traditional epistemology. In consequence, a large extent of what constitute the so called gender theory is not but a number of postulates lacking categories, theories and axioms making up scientific theories, according to what Popper, Bunge, Lakatos, and others would expect.

The absence of an authentic research program contemplating a perspective, a philosophy, a theory, a method and specific techniques in terms of research on gender, debilitates and segregates the feminist studies and reduces them to political and ideological discourses characteristic of a marginal

group. This hinders the possibility of amplifying the perspectives and dimensions of their object of study.

Our aim is primarily then, to focus on the discussion of what authors such as Bunge, Einstein, Lakatos and Kuhn have deemed the requisites of epistemology; the distinction between scientific knowledge and other kinds of knowledge, which do not match the conditions of scientific criteria.

Based on this discussion our next goal is to review the so-called feminist epistemologies. We analyse their features and wherein we discuss whether they possess a particular method.

Finally, we suggest a methodological approach to construct a gender philosophy operating as the basis of a research program based on Lakatos' postulates, with the aim go develop a gender scientific theory.

## **2. Feminist Epistemology and Feminist Epistemologies**

### **2.1. Epistemology as philosophy of science**

Epistemology, also called philosophy of science, is the discipline focused on the analysis and solution of philosophical problems related to the examination and evaluation of the structure of science: methods, values, goals, practices and theories. It is said that it is a meta-language; knowledge about knowledge, knowledge that can be applied to all sciences. In summary epistemology deals with scientific research and its product: scientific knowledge.

With respect to the conditions previously quoted, we outline all what is relevant concerning the role of epistemology as the discipline associated with philosophical problems relating to scientific research. Among them the most significant relates to the essence of science itself; to the question about what is that, which we call science.

Once having answered this question, we will be able to safely define, the criterion, the demarcation, the boundary making possible to distinguish the formal and empirical sciences from metaphysics, art and religion. Thereby, we must establish the limits between the scientific territory and that one of pseudo-knowledge, if that can be possible. Therefore, we also must delimit the epistemological grounds of human sciences, in particular the gender theory.

### **2.2. About the ways of knowledge: science versus non-science.**

In the world exist at least four ways of learning reality. We are not talking in general about the other's reality but only the physical reality. Therefore, we are excluding politics, love, moral, and so on. These four modes of knowledge about the nature of things and phenomena are: religion, art, science and philosophy.

We would not be able to assert that there is supremacy of one over the others; this is not epistemologically viable. According to Peter Berger (1989) we would nowadays find a very little number of scientifics holding that the only legitimate way to observe the world is the scientific one.

From the cosmological point of view, the mythical, artistic or philosophical knowledge result as decisive as scientific knowledge. However, the difference of scientific knowledge relates to the critic standpoint that it adopts in relation to the other ways of knowledge

According to Feyerabend (1987) it results a fallacy to underestimate mythical knowledge in relation to scientific knowledge. Even tolerant and liberal thinking scientists tend to assume that scientific and non-scientific assertions have different authority; that the first can replace the second but not vice-versa. This is a rather naïve view concerning the relation between science and non-science.

This stance can reach the point of deeming that if we assume as non-scientific an attitude we place ourselves in a meta-scientific zone. However, it is interesting noting that Gadamer (1981) holds that in the last years, rather than philosophy art and religion it has been science the way of knowledge dogmatically utilised.

Since its origin, scientific knowledge has been for many thinkers a synonym of serious and meticulous knowledge. In this respect Lakatos holds:

The respect that man feels for knowledge is one of his most peculiar features. In Latin language, scientia means knowledge and science became the name of the kind of most respectable knowledge. What is what distinguishes knowledge from superstition, ideology or pseudo-science? The Catholic Church excommunicated the Copernican, the communist party persecuted the Mendelian because it regarded their doctrines as pseudo-scientific. The demarcation between science and pseudo-science is not a mere classroom's philosophical problem, it possesses a vital social and political importance (1989,9).

### **Aristotelian tradition versus Galilean tradition**

There are two traditions in history of philosophy delineating profound differences with respect to conceptions of science: these are the Aristotelian and the Galilean. The teleological or finalist explanation versus the causal or mechanistic. Aristotle's theory of science could be a clear example of

this “respectable explanation”. Aristotle demanded teleological explanations able to make clear the aim of the occurrence of phenomena; both those facts related to the development of living organisms and those concerning inorganic beings or inanimate objects.(Von Wright, 1987).

But the Greek episteme does not have correlation with our current science. Whereas the former tries to penetrate things in order to explain them, the latter intends replace them for more precise things. The unity between science and philosophy typical of Greece collapses in the modern and contemporary world. With the new Galilean epistemology science starts to transit the realm of positivism.

Galileo’s explanation represents an alternative to Aristotle’s. Nature is not to be explained in terms of future but past. The Aristotelian teleological explanation has made room for a causal explanation. It regards as a scientific explanation of facts that one which is formulated by means of laws linking certain phenomena in terms of numbers; this is mathematically. Such explanations will acquire the fashion of causal hypotheses. However, causal possesses here a functional implication in a mechanistic perspective.

Finally, the touchstone of the value of our causal hypotheses will be determined by experimental analysis. It will be the comparison between the hypothesis and the consequences, inferred through the observation of reality or experimentation, what will tell us about their explanatory value.

Positivism, a legacy of the Galilean tradition, which reached its peak in the scientific positivism of the Nineteenth century, nowadays results unacceptable and has given way to new standpoints which based on its own principles reformulate and introduce new terms and pathways to reach scientific knowledge.

The common opinion about scientific knowledge is obsolete in contemporary epistemology. It has reached a point of crisis as it claims that scientific knowledge is reliable because it can be objectively demonstrated. Scientific reductionism collapses. Concepts such as conjectures, falsation, critic, hypothesis, intersubjectivity, innovation and change have replaced old concepts such as verification certainty, objectivity, tradition, stability. Names like Popper, Feyerabend, Lakatos, Kuhn amongst others, have arisen above the scientific horizon to delimit the boundaries between what is scientific and non-scientific and to specify through new terms what must be called science. The death of philosophy, which was predicted by the Comte the elder, has not occurred as the discussions trying to define these boundaries continue.

Philosophy has been by no means replaced by a powerful cognitive tool; neither scientific knowledge nor philosophical problems and even the gender ones, can be solved through experimentation. Therefore, establishing the place that philosophy occupies in relation to the gender theory is important.

### 2.3 The characteristics of an epistemology

According to Bunge (1980), as a discourse of scientific knowledge, epistemology is efficient if it is able to match five requirements:

- 1) If it relates to science itself.
- 2) If it bears in mind philosophical problems emerging in the course of a scientific research.
- 3) If it proposes clear solutions to such problems.
- 4) If it is able of distinguishing authentic science from pseudo-science.
- 5) If it is strong enough to criticise programs and to suggest new results.

### 2.4. Feminist epistemologies

The feminist theories having utilised the term of feminist epistemologies, have done so to refer to a “way of feminine knowledge”, feminine experiences” or simply “feminine knowledges”, which are equally alien to traditional philosophers and to philosophical epistemology (Alcoff y Potter 1993). We describe bellow the five approaches or feminist reviews of science” (Harding, 1996).

*Psychodynamic perspective.* Intends to explore the consequences derived from the fact that science has been largely practiced by men. It is based on studies relating to the differences associated with reasoning and morality between men and women (Belenky, 1986; Gilligan, 1982...), and the psychoanalytic theory of the objectual relations (Chodorow, 1978). Authors such as Evelyn Fox Keller (1985), hold that the differences between men and women are the result of distinct emotional learning processes, beginning since early childhood.

Whereas boys learn to dominate, girls learn to integrate. Since scientific research is usually carried out by those boys turned into men, the product of this activity is a science constrained by a static objectivity whose aim is to control nature. In contrast a science practiced by those girls turned into women would lie on a dynamic notion of objectivity and would provide a more complex and interactive image of the world; a definitively more adequate one.

The kind of scientific research carried out by Barbara McClintock would exemplify this skill for the intimate connection with the world, characteristic of the dynamic objectivity. The main criticism made to these perspectives lies in the risk that they face of becoming essentialist by supposing the existence of an immutable nature differentiating men from women.

*Feminist empiricism.* From this standpoint it is held that sex and andro-centric bias are "bad science" and therefore eliminable by means of a strict procedure based on a scientific method. Instead of discussing the conventional scientific rules, it only criticizes their incorrect utilization. It deems that sexism and andro-centrism are social bias, which are correctable through the strict adherence to the scientific research's current methodological rules. Far from questioning the scientific methods, they try to purify it or improve it by means of the feminine view, which will contribute to remove the obstacles and "bandages" that blur knowledge and observation. The identification of sexist bias in biology and social sciences that we have previously exposed, often assumes this kind of epistemological standpoint.

*Feminist standpoint theory.* Its most well known proponent is Sandra Harding (1986, 1991), although it has been developed by other authors, mainly in the context of the social sciences (anthropology and sociology), by Nancy Hartsock (1983), Hilary Rose (1983) and Dorothy Smith (1974). With a Marxist origin, the feminist standpoint theory starts by acknowledging the socially placed character of beliefs. Women's situation confers them the epistemological privilege in a world controlled by men; a privileged with is derived from a marginal position where women can see what men cannot from a position of power.

The "strong objectivity" provided by the feminist standpoint contrasts with the traditional notion of "objectivity", inevitably weak as a result of its unconsciously biased perspective. The problem that these epistemological positions face lies in the question about which one would be the privileged point of view, as many ways of oppression exist (Social class, ethnicity, sex...) and also many types of feminine experiences often incomparable and incompatible. As it happens with psychodynamic approaches, in this case, the difficulty for arguing that some options are better than others and the danger of falling in essentialism exists. The epistemological origin of these proposals can be traced in the postulates of Marx, Engels and Lukacs.

*Contextual feminist empiricisms.* The stance for a feminist epistemology, is held by authors such as Helen Longino (1990, 1993) or Lynn Hankinson Nelson (1990, 1993, 1995) <sup>(16)</sup>. They define themselves as empiricist (this empiricism argues that our senses' perception is the most reliable human means to access knowledge). These authors deem that the main limitation of the previously



mentioned approaches lies in the assumption that the individual is the subject of knowledge. Whereas their general strategy is to “change the subject”, empiricist approaches stand for “multiplying the subjects” (Longino, 1993).

By turning the epistemological subject from the individual to the community, these authors avoid some problems faced by other feminist epistemologies. When assuming that women represent an epistemologically privileged group as a result of their marginal position, the feminist standpoint was recurring to a *petitio principii*, as unjustified as that one based on traditional epistemology (the Cartesian cogito’s unconditioned subject), also implying that nature possesses a predetermined and methodologically unique cognitive structure.

In contrast, by arguing that accessing knowledge is an essentially social task, adherents of the social epistemology avoid taking for granted the existence of any kind of subject occupying a privileged position to access any ready made up truth. However, neither this theoretical position is safe from problems related to the need of more rigorous definitions of community and consensus.

*Post-modern epistemologies.* Based on post-structuralism, the social constructivist theories and the eighties’ deconstructionism, hold that doing science is to “tell stories” and science, rather than finding of truths is a negotiation of interests. Feminist postmodernism faces a large number of contradictions derived from the tensions between its seemingly implicit relativism, and the feminist political commitment lacking a more critical view on society. Donna Haraway (1989, 1991) is one of the authors whose work most dramatically reveals this conflict between construction and commitment with certain unalienable “truths”; between the need of documenting the social contingency of scientific knowledge and deeply compromising oneself with the comprehension of the world.

### **3. A research program to construct a gender scientific theory**

As it has been possible observe the feminist epistemologies analysed in this paper present ideological and political standpoints recurrently stressing the relevance of discovering (or defining) the subject of knowledge. They recognise the marginal position that women occupy in the world and in particular in relation to scientific work. They have also outlined the need and the urgency of multiplying the feminine and feminist insights on reality. This would allow a comprehension of the world closer to truth.

Although these approaches are based on different traditional epistemological sources, such as positivism, materialism, and hermeneutics, they have yet to develop some features enabling them to become philosophies of science or epistemologies. Once reached this condition, it would be possible



to identify and discuss their particular problems and to define their methods; thereby, to promote the development of a scientific theory of gender.

In her work on Science and Feminism, when referring to the trends in feminist work on science, Sandra Harding acknowledges the presence of conflicts and tensions. She makes mention of inadequacy of concepts accounting for their analysis, unperceived obstacles and unconscious gaps related to their research programs.

We acknowledge the intrinsic value of feminist standpoints that have enhanced with their analysis the reflections around scientific work. However, we hold that the existence of a research on gender allowing the construction of a particular theoretical frame reaching the status of a scientific theory must contain axioms, principles, postulates, categories, etc. This would make it possible to articulate congruently an interpretation or explanation of reality. Specialists on gender issues must develop the basis of what would be a gender research program. This would include a philosophy and a theory of gender, and also a particular methodology and the techniques to operate it.

With the aim of reaching this goal, we will firstly describe the features of a scientific theory according to Einstein y Popper. Next, we will expose our proposal about how a research program on gender could be developed, which is based on the epistemological postulates of authors such as Lakatos, Kuhn and Feyerabend.

### **3.1. A proposal for the structure of a gender philosophy.**

Both philosophy and science are a system of knowledge. Heidegger holds that knowing means to have possession of truth and truth is the being's manifestation.<sup>ii</sup>

There is a hermeneutic or comprehending circle, made up by the knowledge, the truth and the being. The truth is not a product or a result but a process, and action, the action of concealing. What remains hidden is the being. Knowledge then, is to reach the being, to unveil him/her (or it).

Primary conditions:

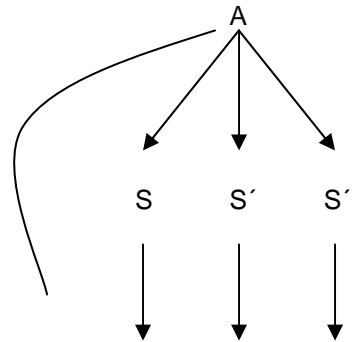
- a) Its categories must be able to explain the different scientific theories that they support, even if their own rules are not based on those ruling scientific theories (a metaphysical system cannot be ruled according to the laws that it intends to support; otherwise it would not be able to explain its referential object).

- b) It ought to allow organizing a theoretical corpus congruent with itself and with its initial axioms.
- c) It must orient the haphazard of human existence. In the case of the philosophy (metaphysic) of gender, what it will be intended is to understand through its facets –analytical, synthetic and critic- the phenomenon of gender (or gender issue).

Whereas philosophy deals with the essence of every theory and the conditions on which their possibilities are based, scientific theory constructs with the aim of efficiently solving problems . Therefore philosophy is more relevant.

### **3.2. The characteristics of a scientific theory**

The essential characteristics of a scientific theory represent a subject of crucial relevance to the current epistemology. What is now acknowledged as demarcation criterion relates to the distinction between the different modes of knowledge mentioned in the previous sections. In a letter dated on seventh of May of 1952, Albert Einstein wrote to his friend Maurice Solovine to tell him what in his view made up the structure of scientific theories. According to Einstein a theory is constructed through four stages, as it can be observed in the figure number one:

**Figure 1. The structure of a theory according to Einstein**

E: Multiplicity of sensitive experiences

1. We are exposed to a multiplicity of sensitive experiences.
2. A represents the axioms from which we derive consequences. Psychologically, A relies on E (Sensitive experiences), but there is not any logical impulse from E to A, there is only an intuitive impulse (or psychological), which is sensitive.
3. From A we logically deduct a series of propositions (S –Sätze -), which can demand to be exact (Although in fact they are not).
4. S relates to E (through an empirical verification). This process also belongs to the extra-logic sphere (intuitive, because the connections between the concepts appearing in S and the immediate experiences (E) are not of logic nature. But this relation between S and E is (pragmatically) much less uncertain than the relation between A and E. If such a correspondence cannot be deemed certain, the logical mechanism would not have any value to understand reality.

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Source: Einstein, A., published by Melich (1994)

It results amazing to corroborate that before the time of the philosophy of the post- Popperian science, we can find in Einstein a formulation related to the nature of theories that is close to that one, which we are interested in for constructing a philosophy of gender.

The scientific theories are a priori constructs and the facts can be utilised to contrast them or reformulate them but always in a vague and confuse mode. Popper (1985) argues in the *Logik der Forshung* that talking about the objectivity of scientific postulates is only possible in terms of an intersubjective contrast (or differentiation). Truth, if really exists is intersubjectively apprehended. Therefore we deem intersubjectivity as one of the fundamental features of scientific knowledge and method.

Theory is always prior to reality, hence it is never empirically verifiable. Popper reasserts:

I think that theories are previous both to observations and experiments, in the sense that these two only possess value in relation to theoretical problems (Popper, 1987, 111).

Popper regards the obsession for verification proposed by positivism as a dogmatic attitude. Instead, he suggests a critical attitude: Falsability. The man or woman of science must avoid to get obsessed in confirming, verifying and demonstrating his/her theories but submitting them to a permanent evaluation and revision. What distinguishes a scientific postulate from a non-scientific is its susceptibility to falsation.<sup>iii</sup>

The Popperian falsation, characteristic of the contemporary epistemology, relates not only to a criterion of demarcation but also entails a new conception regarding the task of the science and the Scientist. Science is no longer an accumulation of knowledge; it is a permanent progression generating problems. Let's have look to the Popper example shown in the figure number two, illustrating how knowledge is increased, through the tetradic system, notoriously simplified, of the method of trial and error suppression:

**Figure 2. Tetradic Scheme of the method: attempt, suppression and error.**

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P1 → TT → EE → P2

Where:

P1 Represents the departing problem. It can be a theoretical or practical problem.

TT Is a provisional theory proposed with the aim to solve such a problem.

EE Represents a process of elimination of errors by means of critic tests or discussions.

P2 Represents the problems emerging from discussions and tests.

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Source: Popper, K. (1994)

The whole scheme indicates that we depart from a problem, either practical or theoretical. We try to solve it by elaborating a provisional theory and solution: this is our attempt (or try). We contrast then our theory and try to false it: this is the critic method of elimination of error. As a result, a new problem arises P2 (perhaps several new problems). In summary, our knowledge departs from problems and concludes with problems (if knowledge is ever to be exhausted).

Scientific theories, such as the theory of the social systems by Luhmann, match these conditions, as they clearly stipulate the epistemic, axiological, ontological, methodological and philosophical conditions of a whole theoretical corpus.

According to Popper, the two basic categories which should understand the advance and development of scientific knowledge, are conjectures and refutations: an attempt by means of hypothesis / an experimentally tested error. A good scientific theory must possess a high degree of speculation, it must thoroughly speculate with the aim of reaching the status of a scientific process. Therefore the higher the speculative risk the higher the level of scientificism, as this condition increases the capacity of falsation.

The scientific attitude is derived from the capacity of the scientist of specifying in advance under which conditions he/she would be keen in giving up his/her theory and his/her most basic postulates. Ulises Moulines argues that what essentially distinguishes the scientific activity from the pre-scientific one, is the fact that the former tends to produce conceptual structures in a simultaneously clear and multivocal way. With respect to clarity, Moulines explains that it relates to the clarity of the limits of its applicability. The gender theory does not reach this requirement. This is the reason why we dare to regard it as pseudo-science. Lakatos holds:

Intellectual honesty does not lie in the attempt of reinforcing or establishing one's position by testing it (or making it testable); it demands specifying with precision under which conditions, we would be keen to abandon our position. Committed Marxists and Freudians refuse to specify such conditions: this is the sign of their lack of intellectual honesty (Lakatos, 1989, 18).

The gender theory does not even reach this criterion. Neither Hardíng, nor Longino, nor Haraway have ever expressed any potential falsator. From Popper's perspective then, what determinates the degree of scientificism of a theory is not its degree of verification or subjectivity but the conditions having made it possible to formulate it and limit it. Science is not less science if it sets boundaries to its knowledge, quite the contrary.

The so called Kuhn's new philosophy of science is focused on the recognition of the historic point of view of the scientific theories. These cannot be understood outside of their historic evolution. Kuhn distinguishes the periods of normal science from those that are not. Normal science is the research firmly based on one or more preterit scientific achievements, which the scientific community acknowledges as the ground of its practical activity. A period of normal science is organised around a paradigm. It is probably the most important category of the Kuhnian works, though the author has modified it and denominated it as disciplinar matrix. The paradigm has notoriously contributed to the

elimination, or at least to the softening of the drastic difference between normal science and empirical-natural sciences.

Lakatos holds:

For Popper, scientific change is rational or at least rationally reconstructable and belongs to the domains of logic of research. For Kuhn, the scientific change from one paradigm to another is a mystical conversion, which is not and cannot be ruled by rational laws, and entirely falls into the field of (social) psychology of research. Scientific change is a kind of religious change (Lakatos, 1989, 19).

The proximity between empiric natural sciences and human science is now established.

Lakatos arises as the most important critic of the Kuhn's relativism. For Lakatos the Kuhnian paradigms have ended up being monopolies of scientific knowledge in a certain historic period:

It would be wrong supposing that one must be loyal to a research program until this has exhausted all its heuristic power... A research paradigm never must be allowed to turn into a monopoly... Unfortunately this is the position that Kuhn supports: what he calls normal science is not but a research program which has become a monopoly (Lakatos, 1989, 92).

For Lakatos, it is the heuristic capacity of a program what can determinates its end:

According to my methodology the biggest scientific findings are research programs that can be evaluated in terms of progressive and jammed problems; scientific revolutions lie in the fact that a research program replaces another (progressively overcoming it). (Lakatos, 1974, 25).

### 3.3. What the research programs are.

In his book *Methodology of scientific research programs*, Lakatos makes mention of the essential elements for a research program:

- a) A solid nucleus, built up a priori, approved by convention and provisionally irrefutable, and from which a negative heuristic is derived.
- b) A positive heuristic holding the role of defining problems, suggesting possible changes and refutations of the program. In other words, the source of progress and dilemmas (Lakatos, 1989, 192)

This dialectic, positive and negative, and simultaneously repressive and revolutionary, is typical of research programs. The gender theory lacks it, as it does not even possess a research program. This

condition is required to integrate aspects such as metaphysics to a scientific theory, and thereby to make it possible to evolve towards a possible science of gender.

Concerning the progress of scientific knowledge, the Hungarian epistemologist also detaches himself from Karl Popper. Whereas for Popper working within an unconscious system results irrational, for Lakatos some of the most important research programs progressed through an ocean of anomalies. Furthermore, he deems possible working with rival programs for a certain period. In this respect, Lakatos holds:

Rivalry between two research programs is by no doubts a dilated process wherein, working with any of them (or both of them, if possible), results rational (Lakatos, 1989, 147).

It must be beard in mind that this assertion is decisive for our proposal – as we will show later on- of closing the structure and dynamics of the lakantonian research programs, to a possible construction of a gender philosophy.

It is obvious then, that from Lakatos's perspective, crucial experiments able of instantaneously and automatically destroying research programs, do not exist. Lakatos does not specify the moment in which a new program reaches the conditions of overcoming its rival, precisely because such a moment does not exist. In this respect he holds:

According to my methodology, the great scientific achievements are research programs, which can be evaluated in terms of progressive and regressive transformations of a problem; scientific revolutions take place when a research program replaces (progressively overcome) another (Lakatos, 1989, 144).

Lakatos is in summary the theorist of science, who from our view opens the widest field of possibilities in relation to the theory and philosophy of gender.

What we have so far is:

- a) Only the internal coherence of a scientific theory can work as the departing point of a research. Constituting
- b) Scientific theories integrate metaphysical elements. Thus, metaphysics is not alien to scientific knowledge but a constituting aspect.
- c) The confrontation between scientific theories does not work against scientific progress. Quite the contrary, it represents an essential aspect of scientific progress. Rather than blocking the development of scientific theories, the emergence of enigmas promotes it. The normal science periods are stages of dispute between different programs but not of victories of ones over the others.



- d) The basic task of a scientific theory is to describe, explain, understand,, predict and suggest... (though certainly, it does not requires to fulfil all these roles). In the case of the technological theory, its role is normative.
- e) A scientific theory must be a model in continuous revision, a source of interrogations more than an oasis of answers. A theory thus, must appear as a model of perfection able to thrughly answer such all such questions.

### 3.4. The problem of method in the gender theory. Its features.

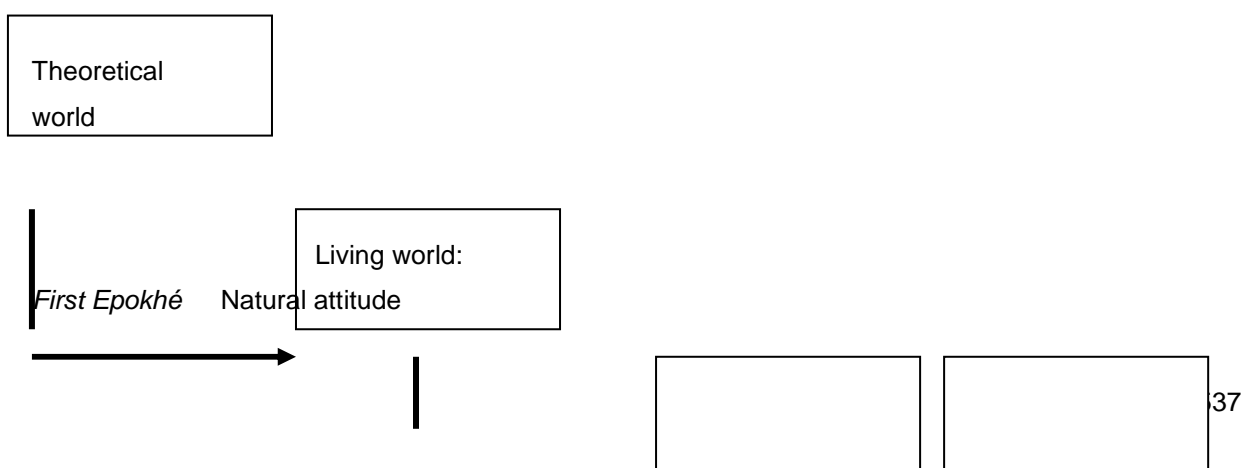
The subject of the gender theory is not but human reality; homo-social-cultural. Every knowledge needs a pathway (method) to reach its goals. There are at least three basic conditions that every method (philosophical or scientific) must meet:

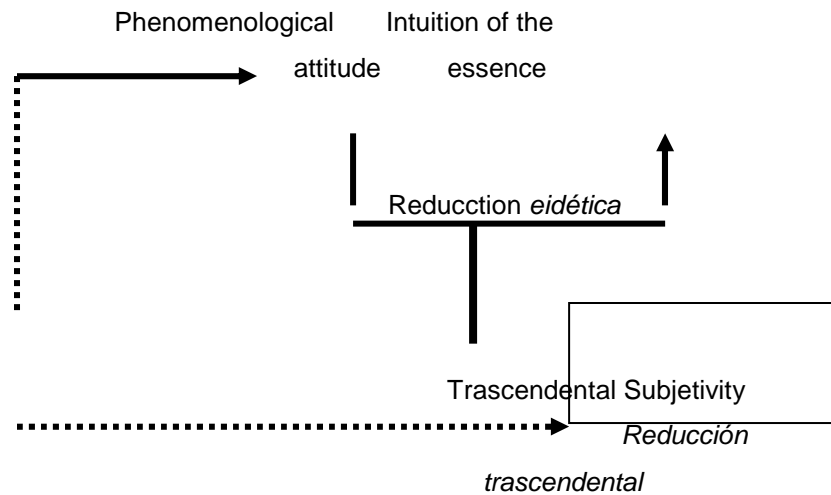
- a) All its components must be distinctly and clearly explained.
- b) It must be intersubjectively reproducible; it must be able to be applied by different researches.
- c) The conditions under which, it should be abandoned must be established; in other words, its limits.

The gender theory must recur to genuinely philosophical methods in order to reach the biological, ontological, teleological, epistemological and axiological bases on which the gender discourse is oriented.

Lets examine an example: the phenomenological method.

**Figure 3. the phases of the phenomenological method.**





Source: Danner (1979)

Lets utilise the scientific configuration or assemblage of the phenomenological method according to Danner (1979) as an example of the possibility of constructing a gender theory.

1. The passage from the theoretical world (the world of scientific and philosophical theories on gender), to living world or that one of the natural attitude, to the spheres of the gender practices occurring thorough everyday life. Such and methodological advance, by no means ontological or ontogenyc, as the living world is always prior to the theoretical one.
2. Reduction of the natural attitude to the phenomenological one. It is necessary to renounce to all time and space in which the phenomenon of gender under examination is constrained.
3. To place in brackets any practical, pragmatic, and utilizable element of the phenomenon.
4. To summit imaginatively the example to variables until reaching its degree of impossibility; that point in which the gender theory would be no longer such. As a result, we would obtain a permanent structure. Departing from a real or fictitious structure is irrelevant for the technique of free variation. It does not matter if we start by utilizing this methods with phenomenon resulting from a contemporary experience.
5. To avoid as much as possible any psychobiological or socio-cultural element influencing the attitude of the researcher. Background, language. Culture, geographic and social context. (This is in the Danner' method that not match with feminist epistemologies in fact, nor in our proposal)

Let see another position to enumerate the phenomenological method according to Spiegelberg (1982):

1. Research on particular phenomena thorough: a) intuition, b) phenomenological analysis of what is intuitively given, c) description of phenomena.
2. Research on the essences. (the transit from the particular phenomenon to the essence; the departing point are the imaginative variations and essential intuition, but never goes through induction.
3. Classification of the essential relations. Science cannot be a simplistic element; it is a complex structure. Therefore, the aim is to establish the relation between the different elements configuring the essential structure of the phenomenon.
4. Observation and relation related to the modes characteristic of phenomena.
5. Observation and reflection about the subjective constitution of the conscience's phenomena.
6. To practice the Epokhé (to reduce the research's perspective to the flux of the conscience and its contents), in other words, the putting between brackets of the existential aspects of phenomena.
7. Research on the meaning of phenomena. This could take place through a phenomenological theory of gender.

## Conclusions

Since the feminist research on gender was inaugurated, it has emerged a large number of texts, which from different disciplines have sought to find and to denounce the inequalities and the discrimination faced by women in the whole world.

The so called feminist epistemologies represent different positions concerning the discussion on the role that woman possess as cognoscente subjects and also the relevance of increasing their participation in scientific endeavours with the aim of practicing a better science.

What has been denominated “gender theory” is made up by a number of works in which the “category of gender” has been developed with the aim of tracing the origin of women's discrimination in many areas of life.

This category has been useful, as it has enhanced the analysis of social inequality. However, It is still needed a scientific theory of gender able to consolidate a theoretical corpus congruently articulating categories, axioms, postulates and principles allowing to approach gender issues as a research subject.

Our proposal to develop a gender research program, including a philosophy of gender, will allow to create the basis for developing a theory of gender with its particular methodology. This will contribute to the consolidation of the achievements, which from different disciplines have been reached concerning gender issues research and will make it possible the emergence of an effective theory, congruent and integrated, from which gender will be approached as a part of a whole complex and perhaps the biological and social of the gender differences and its possibilities of transformation.

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#### Notes

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<sup>ii</sup> Heidegger, M.(1976). *Einführung in die Metaphysik*. Tubinga, Niemeyer.

<sup>iii</sup> This can be understood as a postulate: the scientific criterion to establish the scientific status of a theory is its susceptibility for being debated or tested.