Argumentative forms around the legitimation of anti-sciences in the mozambican academy

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ABSTRACT

In this communication, we seek to identify the argumentative forms that can be sustained around the debate on the legitimation of anti-sciences in the Mozambican academy.

The anti-sciences were seen as pseudo-knowledge, because they were not guided by the same epistemological principles defended by modern science.

It all begins with the model of rationality developed by modern epistemology with the advent of the scientific revolution (century. XVI-XVIII) which had as the basis of foundation of its discourse, the exactness of the natural sciences; jeopardizing the possibility of a possible communication between different types of knowledge. There is an urgent need for the practicality of the discourse already begun on the rescue and legitimation of anti-sciences in the Mozambican academy.

In general, this communication intends to reflect on the applicability of the philosophical discourse that points out the ineffectiveness of the exclusion of anti-sciences in the academy led by modern science. Specifically, it intends to present the already existing argumentative forms that validate the importance of rescuing the anti-sciences.

From the methodological point of view, this communication is guided by the bibliographic consultation, which consists of the collection and reading of the previously collected material and hermeneutics as a technique that allows the interpretation of texts that deal with the theme. We also help ourselves with critical reflection, through argumentation in order to clarify our debate. The research is guided by the following starting question: how do exclusionary discourses serve to devalue local knowledge? In this way we will show the limits of modern science and therefore the emergence of the need to open space for a communication between the destintos saberes in the Mozambican academy.

Keywords: Anti-science, Academia, Communication.

1 INTRODUCTION

This article focuses on *the Argumentative Forms around the legitimation of anti-sciences in the Moroccan Academy.* The philosophical-historical debate that gave rise to the emergence of the theme in reference is the problematic of modern epistemology and its foundations with monoculturalistic – cognitivistic pretensions.

Modern epistemology has created a universal and absolute philosophical thought, with recourse to positive methods removing the possibility of discourse for other types of knowledge (anti-sciences); which in a way contributed to its own inaction. Several thinkers of the time raise a set of reflections on the impossibilities of perceiving and explaining the world through positivist reason. There is an urgent need to rescue knowledge once considered peripheral.

With this article, we intend to make a contribution on the emergence of putting into practice the discourses already initiated on the legitimation of anti-sciences (small knowledge) in the

Mozambican academy. That is, to rescue the phenomena and events that are beyond the scientific scope and rational understanding in the methodological canons defended by modern science and to put them in communication with the so-called epistemology in a practical way within the academi.

Faced with the contemporary approach to the crisis of the so-called rational epistemology developed by modern science, the following starting question arises: how do exclusionary discourses serve to devalue local knowledge (anti-sciences) in Mozambique? and from this , we seek to answer the following questions: how anti-sciences   Can they be on an equal footing with modern scientific knowledge in scientific progress? How to make practical the existing discourse on the legitimation of anti-sciences in the Mozambican academy?

Around contemporary arguments whose scope is the communicative interaction between different knowledges, modern science knows its end. All humanity is subject to its own history; The idea of exclusion presented by the modern paradigm loses its peak and opens space for the recognition of forms of knowledge considered unscientific (anti-science).

In this respect, the research is guided by the hermeneutic method that is presented as a technique that allows the interpretation of texts that deal with the theme; bibliographic consultation that consists of the collection and reading of the previously collected material. We also help ourselves with critical reflection, through argumentation in order to clarify our debate.

In general, this article intends to reflect on the applicability of the philosophical discourse that points out the ineffectiveness of the exclusion of anti-sciences (local knowledge) in the academy led by modern epistemology. Specifically, it intends to present the already existing argumentative forms that validate the importance of rescuing anti-sciences.

In this way, we will show the limits of modern epistemology and therefore the emergence of the need to open space for a practical communication (outside the written document) between the diverse knowledges in the Mozambican academy.

2 CONTEMPORARY GNOSIOLOGICAL ARGUMENTS AND THE VALORIZATION OF ANTI-SCIENCES

It is intended to show the need to rescue the anti-sciences and their universal integration. This debate arises from the problematic of modernity epistemology, or rather; If it is said that modernity is exhausted, then an alternative must be considered. The anti-sciences were seen by modernity as pseudo-knowledge; hence there is a need to rescue and legitimize them. On the other hand, the discourse on modernity and its end as a historical context of the debate on anti-sciences, opens space for a reflection on the endogenous epistemology now peripheralized by the West.

2.1 CONJUNCTION OF CONTEMPORARY KNOWLEDGE AS A COMMUNICATION DEVICE

Gianni Váttimo, in his work entitled *The End of Modernity: Nihilism and Hermeneutics in Postmodern Culture,* makes it clear that beyond the end of colonialism and imperialism, it is necessary to think urgently about the constitution of a society of communication that will determine the dissolution of the idea of history and therefore the end of modernity.

For Váttimo, the human sciences must describe in a positive way what man makes of himself in the culture and society in which he is inserted. This description is *a sine qua non for* the development of contemporary society in its communicational aspects.

> The society of the human sciences is one in which the human finally becomes the object of rigorous, valid, verifiable knowledge (...) in the program of Enlightenment emancipation, aspects such as those of freedom of thought and tolerance are motivated not only (...) by a general claim to freedom (...) but also (...) by the awareness that a free society is one in which man can become self-conscious in a public sphere (...) not overshadowed by dogmas, prejudices, and superstitions (VATTIMO, 1992: 24-25).

It can be seen that with this quote, Váttimo intends to convey the idea that the human makes the object of knowledge more profound, essential and observable in the scope of the human sciences. The aspects of freedom are not only motivated by freedom of thought, tolerance, the claim to freedom of communication, but also by the idea that a free society is one in which man can become aware of himself and responsible for his actions.

According to some defenders of the critical analysis of society, there is agreement on the idea that the Enlightenment project of freedom and human liberation would have been exhausted from the moment the system of production of knowledge invaded the spheres of thought. The existence of a link between modern science and domination is admitted, which contributed to the failure of the ideals of modernity itself in moral and social emancipation. In this sense, it is understood that

> The Enlightenment project, which provided for the liberation of all slavery, came to a standstill at the moment when man became a slave to the forces that he himself imprinted on the historical process; man has lost control of his reason and he is no longer at the service of the construction of his happiness (BOUFLEUER, 2001, p.12).

It is clear that the Enlightenment project does not consist of an attempt to overcome instrumental science, expanding the very concept of science, since it is not exactly modern science that is in crisis, but an exclusivist form of a (modern) science that has become dominant since the sixteenth-nineteenth century.

Habermas, elaborates the concept of science or communicative rationality and, as a result, there is a movement from an instrumental science, prisoner of the conditions of the philosophy of the subject to a "philosophy of language, of subjective understanding or communication" (idem, p.497).

A little later, Habermas (1997, p. 92) specifies that:

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In the public sphere it can be described as a suitable network for the communication of content, positions and *opinions*; in it the communication flows are filtered and synthesized, to the point of condensing into *public* opinions embedded in specific themes. In the same way as the world of life taken globally, the public sphere reproduces itself through communicative action, implying only the mastery of a natural language; it is in tune with the *general comprehensibility* of everyday communicative practice (HABERMAS, 1997.92)

It is important to emphasize that the idea of the existence of a science or communicative rationality elaborated by Habermas emerges as a possibility for facing and overcoming the crisis generated by the discourses and arguments of modernity triggered by the exclusion of the other. To this end, he proposes the decoupling of the processes of rationalization of the spheres of communicative action from the subsystems of action in the different types of knowledge.

Not being an institution, how to designate these communicative "encounters", Habermas (1992, p. 93) proposes "architectural metaphors" such as "forums", "stages", "arenas" etc. These (architectural metaphors) were later defended by Severino Ngoenha in his epistemological architectural epistemology *Lomuku.*

It is in this prism that contemporary discourses mark the end of the sovereign legitimation of modern science and open the way to a new form of legitimation of anti-sciences. This scenario, similar to that of communicational computerization of society, although proposed in a totally different way, does not claim to be original, or even to be true. What is claimed, in fact, is a great capacity for the inclusion of knowledge. For unlike this we will have only

" (...) fallacious evidences, to begin with, scientific knowledge is not all knowledge it has always been linked to its concept, in competition with another kind of knowledge that, to simplify, we will call narrative that will be characterized later" (LYOTARD, 2000:12).

In this perspective, other knowledge (anti-sciences) should be seen as ways in which subordinate groups or classes live in subordination, which means that they can be seen as regulatory tools that can develop and transform society, having as a fundamental resource the communicational dialogue with other knowledge.

The crisis of modern science has created conditions for the delegitimization of this way of knowing, giving room for a new form of legitimation that is no longer through positive methods. It is within this understanding that Castiano speaks of a legitimation of anti-sciences, which must be seen as the fruit of a given culture, through intersubjectivity, at the same time that Ngoenha thinks of the dialogue between cultures that produce knowledge contributing to the "construction of a science without empires" as stated by Boaventura de Sousa Santos (2019)

2.2 THE ANTI-SCIENCES AND THEIR INSERTION

The way modernity presents the scientific framework or science, has an exclusionist character in that it considers as science all the knowledge that uses positivist methods, denying the other forms of knowledge, hence Castiano (2013, p. 45) states: "the intrinsic of modernity was the fact that it intends to structure itself as the 'center' of the so-called 'world system' and to look at the 'rest' as periphery". Thus modernity in its scientific discourse intended a universal science marginalizing the anti-sciences or creativity of various peoples.

The positivist conception of science mentioned above, has as its foundation the moment in which society enters the postmodern phase and therefore the change of the paradigm, urgent the need to give space to other knowledges, emerge the metanarartivas. One of the phenomena is the abandonment of foundationalism, the view that science is built on a firm foundation of observable facts in the philosophy of science. Moreover, the postmodern questions all the basic premises of the Enlightenment. The second phenomenon is the consequent collapse of the hierarchies of knowledge, of taste for opinion and the interest in local knowledge in place of the universal. (Lyon, 1998, p. 17).

Castiano presents a radical critique of the canon of modern science, wanting in a certain way to show the substance that the anti-sciences have for the development of society in a concrete way and that should no longer be seen as being speculative, folkloric and exotic whose "explanations as a strong load of considered metaphysical ... and evidently this nature of explanations would have great difficulty in being considered scientific, if using the lenses of a modern nature to understand them" (CASTIANO, 2013, p.41).

Anti-sciences generally deal with facts that do not use observation, verification, or measurement, which is to say, cannot be seen from the perspective of modern science. This in a way contributed to the non-legitimization of this knowledge. Anti-sciences express values, beliefs, cultures, and a people's way of life, hence that, "a true science starts from the place place; this is an epistemological and cultural position from which anyone who wants to arrest himself as a 'scientist', argues, situates and constructs his scientific discourse" (ASANTE Apud CASTIANO, 2013, p. 44).

The above quote presents the anti-sciences as a starting point for the scientist to be inspired for any scientific project since, the anti-sciences are in the communities and are practical knowledge, attitudes, skills and experiences of everyday life, has a cultural and even scientific relevance (Cf. BASÍLIO, 2006, p. 15).

The critique of universal scientific rationality creates conditions for local rationality. The anti-sciences are valid for the progress of society: all knowledge obeys certain types of statements with various notions (knowing how to be, knowing how to be, doing, listening and knowing), that is, that knowledge encompasses systematic information. The question of the ality of knowledge in Lyotard (1989, p. 47) is dependent on the ability of the person to utter good denotative, prescriptive and

evaluative statements. These statements are valid for all types of knowledge, that is, for scientific knowledge and local nature.

In this way it is clear that scientific knowledge is not "knowledge" but a subset of knowledge, that is, a type of knowledge like the other types. The difference that will exist between scientific knowledge and other types of knowledge is the methodology. There is, however, an agreement that all knowledge obeys the question of space and time (cfr. Basilio, 2006, p. 25). Which is to say, knowledge is anchored to a place. This is one of the fundamental categories of knowledge. The notion of the place referred to here is not geographical, but refers to "the educational discourses produced by people from a given locality" (idem, p.26). The anti-sciences have an ethnological articulation that is rooted in the traditional cultures that influence the entire universe of knowledge. In this sense, "the whole universe of knowledge such as: *customary rights, myths, religions, languages, agriculture, architecture, music, arts, literature, social and cultural phenomena, economics, imagination, morality and politics have their local origin* (idem, p.27).

Thus, all knowledge is understood from the place, from the constructions of the social groups located in the communities. The connoisseur or philosopher arrives at a knowledge having as a starting point its influences, in this case, the prejudices it brings from its community. That is, universal knowledge starts from the local hence that "total knowledge is also local" (SANTOS, 2008, p.76).

Another approach that can be taken would be that all universal knowledge is aimed at solving local problems, for example: "lowering the infant mortality rate, inventing a new musical instrument, eradicating a disease, etc."

This is the approach that the present brings in order to indiscipline knowledge in order to give value to all kinds of knowledge, so "knowledge advances as its object expands, expansion that, like the tree, which proceeds by differentiation and the spread of the roots in search of new and more varied interfaces" (idem).

The local knowledge that contemporaneity advocates, is also universal in that it appears as a solution of the "local cognitive projects", in this case there is a cognitive cooperativism between these two forms of knowledge, which means that neither local nor universal knowledge can by itself solve the concrete question of community or society.

Santos (2008, p.77) proposes a methodological pluralism and discursive tolerance in order to resolve the dichotomy: local and universal knowledge, since in the contemporary paradigm science "does not follow a one-dimensional, easily identifiable style; His style is a configuration of styles constituted according to the criterion of the scientist's personal imagination. These two types of knowledge must dialogue; thus, "the master narrative must dialogue with the local narrative" (BASÍLIO, 2006, p. 28)

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2.3 LOCAL LANGUAGES AS A MEANS OF APPREHENDING ANTI-SCIENCE

By nature every man possesses language, which in a certain way differentiates him from animals and plants, man is a being endowed with language. Language is found everywhere and in all life, hence man needs language to externalize his thought. Thus, the essence of language would be the collection of events from society. This way of thinking leads us to the understanding of language as expression, speech. In this way one can understand the human meaning from the communication.

Language and languages are important to link the concepts and statements of knowledge existing in communities. This position is not accepted by many thinkers as is the case with Frege. For him, local languages must be replaced by another type of language, because this is ordinary and imperfect and hence insufficient for scientific uses. In fact, "the current language is often obscure, ambiguous and irregular and sometimes proves to be incapable of expressing logical expressions of a certain complexity" (FREGE, 2009, p.15).

This understanding of Frege has over time been denied by many thinkers who try to show that local languages have any logical value. Analyzing from African thinkers we can cite Kagamé who "seeks the philosophical categories that express the Sein in the linguistic structure of the Bantu peoples" (Castiano, 2010, p.80), meaning that Kagamé finds in the local languages of the Bantu peoples, linguistic elements capable of expressing a knowledge as do the so-called modern languages. Kagamé uses kiryarwanda and since then makes linguistic analyses believing that with the language it was possible to understand the Bantu way of perceiving the universe and in a particular way the language of Rwanda that in a certain way with it abstraction is possible.

According to Castiano (2010, p. 80), Kagamé seeks the philosophical categories that express *the sein, in the linguistic structure of the Bantu peoples, he discovers a similar structure in all Bantu languages that gravitates around the radical Ntu, thinking with this to have discovered the concept equivalent to se* sein *or* being.

By this he intended to show that in the linguistic structure there are categories that are equivalent to the categories drawn by Aristotle in the Greek language. As Ngoenha (1993) says, Kagamé thought that by questioning the grammar and grammatical categories of the Bantu languages he could discover the articulations of the real. Thus came the following categories:

First category: Muntu or umuntu, this category refers to man or being endowed with intelligence;

Second category: Kintú or ikintu: which are things, beings deprived of intelligence. This as the first category equals Aristotle's substance.

Third category: Hantu, which connotes at the same time the categories of place and time;

Fourth category: Kuntu or ukuntu, designates the modality, which encompasses all the categories of Aristotle.

With this analysis, Kagamé wanted to show that behind the Bantu languages there is a philosophy of knowledge, since, the local language better formulates the anti-sciences, this happens in all cultures where for him the language will transform a formal logic (ideas, judgment and reasoning). What is dealt with in formal logic has a universal human connotation, which means that the Rwandan language has for Kagamé a universal logic (CF. NGOENHA, 1993, p. 84).

The intrinsic limitations, the fundamental logical features of the contents of languages cannot take away the value that they have for the expression of knowledge. The ordinary language can adequately spread the dispositions of the facts of the world in the same way as the "lingua universalis".

This brings us back to the thought of Vygotsky, that for him all the basic cognitive activities of the individual occur according to his social history and end up constituting the product of the historical-social development of his community (Cf. VYGOTSKY, 2000, p. 5).

It is legitimate to assert that local languages are a vehicle for the legitimation and expression of anti-sciences and not simply Western languages. In this, Castiano (2006), It is noteworthy that languages can markedly represent a style of intellectual coloniality, creating from there economic and political elites. Speaking of the Mozambican case, "only Portuguese speakers are those who had access to the labor market and greater possibilities of social ascension" (CASTIANO, 2006)

In this way, it is clear in Castiano that scientific production and political participation are extremely dependent on the official languages, in this case the Western ones. Hence there is a need to apprehend anti-science with local languages as a way to demarginalize local knowledge. It is necessary to abandon the mysticism that one has with traditional knowledge as the primary cause of non-integration and validation of anti-sciences.

2.4 THE FORMATION OF KNOWLEDGE AS A RESULT OF THE INTERSECTION BETWEEN SCIENCE AND ANTI-SCIENCE

Faced with the dichotomy of science and other knowledge, there is an urgent need to think about the possible interaction or dialogue between knowledges, since both modern (scientific) knowledge, as well as local sabers or even those nicknamed peripheral, have the same use value or better answer, there is a problem that supports the society that uses, if we do not see: In case of a pest that tithes crops, science has a solution that starts from a scientific conception, by an insecticide from a chemical mixture solves the problem, the same problem can be solved by the connoisseurs of anti-sciences in a different way from science. Both ways of knowing solve the problem.

So, to Coimbra

> "In terms of operationalization of the space of knowledge it is necessary to resort to the trees of knowledge, the strategies of recognition of the identity of knowledge, to know the other and what this represents in terms of intersubjective enrichment, learning opportunity and reciprocity in knowledge" (LÉVY apud COIMBRA, 2010, p. 151).

It is clarified the need for appropriation of all knowledge in order to respond to concrete problems and the space of knowledge, unlike the modern conception of knowledge that only and only considered knowledge the observable and measurable.

Some authors, such as Lyotard's case, place the exchange relationship as a way out of the problem of knowledge, however, it must be a free exchange that goes through the negotiation between the agents involved, which in a certain way can contribute to the "recognition of knowledge for a dynamic management of competences" (ditto).

Thus, the tree of knowledge allows the recognition of other knowledge for its value and no longer for the modern form of legitimation and validation, hence there is a need for a flow of knowledge in order to respond to the complexity of society. The tree of knowledge would be the most coherent and democratic method of recognition and validation of knowledge, opening space since then for new knowledge and free access through its obtainment. Hence: "the tree of knowledge allows to locate by simple inspection the position occupied by a certain knowledge at a given time and the possible itineraries to access such competences" (LÉVY apud COIMBRA, 2010, p. 153).

In this way, one cannot speak of the anti-sciences more important than the others but if the knowledge is in the form of a tree they have the same validity depending on their use in a given community. That is, the validity of knowledge depends exclusively on the use value and there is no hierarchy and classification of knowledge. All anti-sciences are like branches and their organization depends on the users.

For the tree of knowledge, it is important to value the set of knowledge acquired over time; In this case of all life, since the individual is the one who produces knowledge whether scientific or local and in this process he brings with him a knowledge or pre-concepts that he cannot abandon in the process of knowledge because it is important in the production of new knowledge. The recognition of the various knowledges has a significant impact on the resolution of problems that support the communities and this is possible through the tree of knowledge to the extent that it allows the management and expression of the diversity of knowledge. On the other hand, it validates knowledge in a more plural way and has repercussions on the life of communities. They allow the exchange of knowledge and transversal communication.

3 CONCLUSION

The scientific paradigm of modernity has reached its limit due to the structural insufficiency caused by the advancement of knowledge that it itself provided. In fact there is no absolute certainty, so there must be a communicative intervention between the different knowledges. It is because of this that contemporaneity proposes the need for methodological plurality to understand various natural phenomena.

For this to happen it is necessary that there is a communicational dialogue between the knowledges. Dialogue is a response to the dichotomy of science and anti-science. One cannot speak of scientific knowledge without taking into account social and cultural knowledge, because it is part of man's daily life. That is why the Mozambican academy must take into account that anti-sciences are capable of answering concrete questions of society that modern science solves with positivist methods, in the area of medicine, physics and chemistry, where the phenomena explained by the natural sciences are also based on anti-sciences.

The debate on the legitimacy of anti-sciences must detach itself from the documented discourse to its practicality for its intrinsic value; for it is on an equal footing with those of a modern nature. This is a knowledge that in communities is used to solve various problems and to explain certain phenomena. What it lacks is its theorizing.

These anti-sciences have the same type of discourse as that of the natural sciences (denotative, prescriptive and discretionive) in the explanation of phenomena, differing in the use of method.

It is important to emphasize that all science has a common sense as the primary way of explaining phenomena on the one hand, on the other; The complexity of society requires a multiplicity of scientific discourses for development. It is in this context that lies the merit of contemporary science in the sense of recognizing that no form of knowledge is in itself absolute, but depends on the others for its effectiveness. There is an urgent need for a pragmatic communication dialogue between modern science and anti-science in the Mozambican academy.

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