

Background to the classes: principles, concepts and geographical categories¹

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Abstract

The notion and spatial dimension in research and teaching are objects of analysis in different areas of knowledge. In this article, we put in discussion the relationship between principles, concepts and categories, to say the space as corpus that supports spatial analysis by geographic bias. We construct arguments that propose these processes as links to the themes proposed in class and also as forward-looking and creative possibility. Methodologically, text, organized into three sections that focus on these notions, is configured as a result bibliographical study of theoretical research that dialogue with our experiences of teachers. The research allows us to infer, combining natural and social that the principles are designed laws the concepts are generalizations and categories are ways of approaching. They are possibilities for realization of spatial analysis, taken by the complaint involving the uniqueness and the association between these notions, and these systematizations should be possibilities to the creative imagination.

Keywords: Geography teaching; High school; Urban planning; Spatial perception; School Cartography.

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Resumen

La noción y la dimensión espacial, en investigación y enseñanza, son objetos de análisis en diferentes áreas del conocimiento. En este artículo, discutimos las relaciones entre principios, conceptos y categorías, para afirmar el espacio como un corpus que apoya el análisis espacial a través del sesgo geográfico. Construimos argumentos que proponen estos procesos como enlaces con los temas propuestos en las clases y, también, como una posibilidad prospectiva y creativa. Metodológicamente, el texto, organizado en tres partes que se centran en estas nociones, se configura como un estudio bibliográfico resultante de una investigación teórica que dialoga con las experiencias de nuestros maestros. La investigación permite inferir, combinando lo natural y lo social, que los principios son leyes elaboradas, los conceptos son generalizaciones y las categorías son formas de acercamiento. Son posibilidades para llevar a cabo un análisis espacial, asumido por el argumento que involucra la singularidad y la asociación entre estas nociones, y estas sistematizaciones son posibilidades para la imaginación creativa.

Palabras clave: Enseñanza de geografía; Principios geográficos; Aportaciones teóricas; Aprendizaje; Construcción del conocimiento.

Introduction: The Geography Class

Reflecting on the geography class is considering and thinking about the school floor bringing with it all the characteristics of what happens there. In this complex, the notion of foundation can be a dense affirmation, because principles, concepts and geographical categories, by their space-time implication, are important to understand the nature of school learning in general. Having this as an assumption, we understand to be significant the reflection about the theoretical support of the Geography class, because its theoretical links involve devices to the construction of knowledge.

The class, not only that of Geography, but of others disciplines as well, is an "act-event" that understands a space-time of interaction between subjects in the process of taking a step (BAKHTIN, 2010). It brings, in itself, always different open processes. However, although it is not configured and understood as a "ritual encounter, and therefore with pre-determined gestures and doing, of knowledge transmission" (GERALDI, 2010, p. 81), it is also not something random, neutral, distant from people's daily lives.

The preparation of the material used and the strategies developed may be appropriate and even produce good results in terms of thoughtful links. But there is something stronger behind all this, which is the foundation of the whole process, which is "geographical thinking". It embraces everything else and allows one to make the interlocution with all the other aspects. It is what allows

us to give meaning to school discipline, and makes the path of abstraction opportune. Only in this process can it be possible to construct the concepts, and it is these that found the understanding of the contents.

Likewise, we consider "the doing" that constitutes daily life in the classroom that it is important to know and understand. This is in two ambits. The first is that which challenges the classroom teacher to do the abstraction exercises in order to theorize, not only the contents with which he works, but the teaching action itself. The other ambit, which is what we insert ourselves at this moment of our academic life, is to create the operational conditions for research, not research closed in itself, but open to the world of life. It is about "understanding now writing as a principle of life, an irresistible vital impulse, this problem of mine: existential. But also, pragmatically, my professional problem: that of a teacher [...]". (MARQUES, 2008, p. 18).

As a whole, we present a reflection focused on the issues that we consider significant for developing geographical thinking. This requires that what is central to Geography and, in this case of interest, to school discipline be clearly established. What is the core of Geography? What sustains it to be a science with its own field and as a result a discipline with unique status to be included in the context of school curriculums? With this in mind, it is possible to think about what contents are being discussed and why these are the established ones.

The argumentation about the importance of and relations between principles, concepts and analytical categories, interested in recognizing the implication of this process in the teaching and learning of Geography, is the central focus of this elaboration. This reflection is based on research carried out between 2010 and 2014 - in this context of the doctorate in Education in the Sciences, arguing daily life as a geographical category for teaching and learning at school. We now take this discussion as the key to opening the basements - an invitation to teachers (especially of Geography) and undergraduate students - to investigate issues involving the uniqueness of spatial analysis in education, understood as links to prospective possibilities in the construction of knowledge.

We highlight the class, as we consider it to be the central habitat of the entire educational process. And, it is fundamental to understand that it comprehends the mediation between what is beyond and what is happening in the moment of the "subject or content" in question. In it, the same theme can be worked on by different areas of knowledge, exploring different biases, since it is the same world that is put into debate, and that can be thought through the experimentation of new links. The pedagogical relationships created involve

going beyond the theme of the class, that is, they imply the dimension of prospective dialogue. Also, they understand the moment, in the sense that they involve commitment to the theoretical statements resulting from the provisional agreements of the scientific community. A kind of inhabiting not only the house, of not being limited to the content of the class, but also opening the attic and the basement. The first infers to bet on the imagination; the second involves basing oneself on the foundations of conceptual elaborations. From the attic, we set out for creative flights; in the basement, we firm our feet. Imagination and innovation are related to reflection and reason (BACHELARD, 1975; VEIGA-NETO, 2012).

This discussion, born from the experiences of Geography teachers and the research we have developed, includes thinking about what surrounds the basement, which is, sometimes, rejected because it is considered extremely theoretical and distant, or as a dead past. However, it is in the basement that elaborated references are found and that serve as the links, supporters of the whole house, understood as the subject or content and procedures of the class. It is these contributions, that allow us to move on to others different relationships. The basement supports the whole house, with the concepts and categories necessary to support teaching and learning, as links to the advancement of the subjects' understanding.

This argumentation, we carry out in the modality of theoretical essay, interested in serving as a reflective device; a debate to help in the configuration of relations of Geography (and other disciplines) in the processes of teaching-learning, based on principles, concepts and categories. For this purpose, in the first part we analyse the support of the class, highlighting the principles, concepts and geographical categories. We move forward, presenting the intersection of these dimensions as dialectic-dialogical elaboration, presented in the form of a cyclical spiral, and we converge affirming to dwell in revolutionary power here and beyond the class.

Class Theoretical Support

Teaching and learning involves a complex relationship, which has been taking part in the debates (CALLAI, 2011, 2013), concerned with reflecting on the epistemological processes and assumptions involved. The spatial dimension (which involves the temporal) comprises the uniqueness of the Geography class, but from a perspective of integral education, it is important for all areas of knowledge.

Putting on the table the discussion of what supports the spatial bias in school geographical analysis requires thinking about the inputs that underpin its

interpretation. It is in this perspective that we consider fundamental this kind of revisitation to the sense of principles, concepts and categories. This is how we approach them, interested in approaching them as components of epistemological support and methodological commitment in teaching. Therefore, the importance of researching them, to think about these choices. Accessing these trapdoors involves visiting those places where agreements of understanding are kept (or hidden), which allow us to understand what peculiarizes and sustains our geographic analysis.

It is important to focus on these theoretical dimensions because there is a great proximity between them and also because of the lack of clarity in the school and in the undergraduate (in the teaching courses in particular) in relation to this support of spatial analysis. Principles, concepts and categories are theoretical offerings and discussions that run the risk of being trivially understood and used, such as principle understood as given, concept as closed and category as grouping of common properties. They are the principles, concepts and categories that in the scientific-academic context, compose the theoretical framework that supports the reflections. They are important discussions because they involve "intellectual instruments essential to any theory" (idem. p. 165). The challenge is to seek the bases of geographic thought, whether in the history that constitutes it, or in the limits that present themselves today in the face of the complexity of the world life and even of thought.

While proposed as linked processes, we discuss prominently each of these dimensions, their proximities and singularities, which make up the theoretical *corpus* of Geography. And, along with this, we rehearse the nakedness of geographical thought, how it constitutes itself, and how it can be the path to an education that considers (at school) not only a set of information, but that leads to the development of abstraction and theorization. This is a link that begins with the understanding that words involve concepts, and advances, with the understanding that concepts can be treated in relationships with categories of analysis that, in some way, can be related to elaborated scientific principles.

Geographical principles

The principles are stated as foundations that can never be understood last or first, but that are linked to the fields of knowledge and are specifically assumed by them in accordance with the "logic" of that field. This is because they present structuring elements that allow the analysis to be based on laws and agreements with which specific aspects of them can be understood. Even understood as structures that contain a logic, it should be remembered that they are always interpretations provisionally agreed upon by a certain scientific

community, because the foundations and logics are human elaborations. The idea of movement is fundamental and involves the capabilities of understanding and comprehension of the issues considering the cognitive aspects, scientifically related, feelings, emotions, reason, that is to say, has to do with the humans we are.

García Ruiz, Jiménez and Rodríguez (2009) discuss and elaborate a proposition of argumentation, interested in offering elements of support for the teaching of Geography and History and, in this sense, summarize the importance of the principle:

[...] It is an epistemologically founded and useful option in the learning of these two disciplines, since it is inherent to the scientific nature by the construction and specificity of their knowledge, which helps to understand the whole of human relations in their universality, is meta-explanatory and helps to understand the complexity of facts and information remaining, adapts to the individuality of students, develops skills and competencies, dexterities and educates in values, attitudes and norms (GARCÍA RUIZ; JIMÉNEZ; RODRÍGUEZ, 2009, p. 31).

These Spanish researchers argue that the principles have a sense not only scientific, but also didactic, because they are epistemologically sustained and inherent to mediation processes in teaching and learning at school. For them, the principles "therefore, help to structure the themes with scientific rigour, to align the programs, while offering greater clarity and understanding to the students" (GARCÍA RUIZ; JIMÉNEZ; RODRÍGUEZ, 2009, p. 38). These researchers understand that the principles are not as organizers of the programs, but as trainers of the units of each theme. They constitute a way of approaching the themes by identifying their nature and dimension, going deeper into them, understanding their formative value and their function in science and society. They also claim, that they help not only to relate objects and facts, but to understand the whole of human relations and the universe beyond the area and discipline.

These are lines and axes of continuity, forms of connecting content, interdisciplinary links, horizontal and transversal mechanisms, analysis tools, intellectual abilities, didactic instruments, etc. In summary, they are means and message, method and objective, plan for the study and understanding of Geography and Human History (GARCÍA RUIZ; JIMÉNEZ; RODRÍGUEZ, 2009, p. 38).

His point is that principles are part of the intrinsic nature of phenomena, facts and events. In the opinion of the researchers, they refer to natural and physical, as well as, social and spiritual facts. In this sense, they offer and

explain in detail and systematically the principles that they understand relating to Geography and History and are, by them, thus presented:

Spatiality: where does this happen or have happened? Temporality: when does it happen or did it happen? Conflict-consensus (modality): how does it happen or happen? Activity-change and continuity: how has it been evolved or evolved? Intentionality: what they thought, what they wanted? Interdependence: what or who is involved or who were involved? Causality: Why does this happen or have happened? Identity: what are or were essential characteristics? (GARCÍA RUIZ; JIMÉNEZ; RODRÍGUEZ, 2009, p. 49).

The researchers propose that the principles form meta-categories that differ from the concepts because of their versatility, because they dive in and stay above all concepts and facts. They understand that "the concept has a specific meaning, a more or less defined field and is continuous in its mission, while the principle does not" (GARCIA RUÍZ; JIMÉNEZ, 2006, p. 65-67).

Principles (from latin *principius*) can be understood as "the first instant of being of a thing, point that is considered first in its extension or thing, base, origin, fundamental reason on which one proceeds discussing any matter; any of the first propositions or fundamental truths through which one begins to study the sciences and arts" (GARCIA RUÍZ; JIMÉNEZ, 2006, p. 63). Although we want to assume this statement, it is necessary to consider that the notions of precedence, source, motive or sentence are only a choice and an analytical path, since "the port" in which the statements are anchored is built in dialogical and contextual terms, so there is not only one, but it is one among other "ports" and, if it is "safe", it is also uncertain and provisional.

The considerations about the principles serve to reflect on the scientific and didactic perspective, because they offer an idea of articulation and identity to Geography around its object. They cannot and should not, however, be understood as naturalized. The nature to which researchers refer is a construction within the scope of human understandings, that is, it is not given, but is (always) an interpretation of the subjects. The principle is an offering of a device, among others, possible to think of the object of Geography as an academic-scientific dialogue of its researchers and also as an integral part of a generality that involves other areas. The principles compose a theoretical conjugation of Geography and can be related to concepts and geographical categories.

Geographical concepts

In Geography, the theoretical tools, in the form of concepts and categories and their use as intellectual tools for spatial analysis, present a difficulty that

may be related to "the past of Geography as an essentially empirical science, which did not value the role of theory and concept in the production of knowledge" (CRUZ, 2010, p. 1). This difficulty is highlighted at school, because teachers start using terminology without, more often, being concerned with its contextualization, and the use may also become punitive (CASTROGIOVANNI, 2011), because it is treated as a necessary task, but barely understood; a form of content treated as "ends", which are characterized by the repetition of current themes as an end and not as a means. Also in this sense, considering a daily life as a category of Geography helps in this process of theoretical-conceptual reflection that advances in current and punctual information, which can serve as a device for thinking by playing with limits, because it contains spontaneous and creative variants (WERTSCH, 1993), central thesis of the proposition in this article.

The confrontation of this difficulty in the constitution of the theoretical field in Geography (which is not exclusive to it) has allowed the creation of various theories, concepts and categories. It is possible to understand that there are some important categories to spatial analysis such as territory, landscape, place, region and concepts such as scale, as well as network and orientation, as stated by Cruz (2010).

Geography as any disciplinary field has built along its path a great variety of theories, concepts and analytical categories, but there is a reasonable consensus that there are some structuring categories of this scientific field: *space, landscape, territory, place* and, more recently, we could also include the concept of *network*. These are considered by the community as those that confer a relative identity to Geography as a science (p. 2, author's highlights).

Following this statement, when discussing the use and operationalization of concepts in Geography research, Cruz (2010) investigates what *these concepts* are and how they can be used in research. He justifies this because the category contains a generality, in other words, it is a concept, although it is distinguished by also implying an analysis perspective, a confluence of aspects that are considered to carry out the evaluation. It is important to reflect on what Cruz (2010) refers to pay attention to the affirmation of the concept in a strictly realistic - empirical-positivist - perspective, which thinks of the concept as a simple form of division and taxonomy of the real, and can be considered strictly idealistic and arbitrary. The concept cannot be treated from an excluding perspective, but from a dialogical one, because it involves theoretical materiality that has a concreteness. Even in a dialogical understanding between the empirical and the theoretical, however, it is necessary to take into account what Cruz (2010) suggests when quoting Haesbaert, stating that the "construction of

the concept implies an operation where the vector is always from the rational to the real" (p. 4). In this sense, the concept is a re-presentation (differentiated from the real), it is an instrument of mediation (as a means of action) and also a trigger, a founder of realities (CRUZ, 2010).

The concept is related to a more or less orderly proposition, because it encompasses specificities that characterize and peculiarize it. A concept, however, although it is a generality, does not have closed or rigid borders; therefore, it can be understood as an open device for thinking (WERTSCH, 1993) and that makes us reflect, as Gallo (2008) suggests.

The concepts [...] are mobilizers and engines of thought, they are to make people think, not to paralyze, immobilize thought. Each concept refers to another concept, to another problem. Each concept connects with several others and asks for new connections. Thus, in an infinite movement of thought, what we have is always new concepts being created, by connection, by sliding, by displacement... and the invention of new problems, as in a continuous motorcycle (p. 66, author's highlight).

In this sense, proposed by Gallo (2008), the elaboration of concepts is a way to change the world, a creation that is always understood as a provisional defendant proposition, never as peremptory truth. Maffesoli (2008) infers another possibility: the substitution of the expression concept by notion, which he considers more open and prospective than the word concept. We consider that this discussion is significant to build the basis of interpretation of the world of life, since there are no definitive truths, but these are constructions that have foundations according to the interests of those who make the analysis. In this sense it may be important to consider this author's interpretation when he says that

[...] There is an inflation of concepts. In all areas, it seems to be a key term, although it says nothing else. Why is that? Because concept means everything that is closed, and therefore it is his own to isolate the object as a finite and finished product. The image I make of concept is that of the child's poop, proud to show it to his mother. This is what many intellectuals do about their creations. However, I want to give a more open dimension, and therefore [...], I try to use the term notion in order to look for an instrumentation congruent with the vital moment. It is necessary to find notions as less true as possible. The concept seeks the truth. The notion seeks similarity (MAFFESOLI, 2008, p. 3).

A proposition that, according to the author, can be approximated to the "humility of the notion". In the analysis, daily life is a concept that can be proposed as a category, because it can be understood as a prospective link to school dialogue. The concept allows "to indicate the determination of a singular aspect of the real" (BERNARDES, 2011, p. 167). The author suggests it as a

fundamental form of thought understood by the determination of aspects elected for analysis, and which has "universality as one of its main aspects" (BERNARDES, 2011). If the concept is a generalization, the category is *a way of knowing and thinking*. In this process, concepts are intrinsically involved, not as mere words, but as signs that represent provisionally stable meanings.

"The academy understands by concept (from latin *conceptus*) the thought expressed in words" (GARCÍA RUIZ; JIMÉNEZ, 2006, p. 63). It can be understood as enunciated in words, which shelters "common idea or ideas about common things, the mental schemas that represent reality, aspect, quality, title, etc.". (GARCÍA RUIZ; JIMÉNEZ, 2006). It is a representation in words that says something greater than and what can be housed by them. It is, in this case, an open generalization, because it is always in the process of construction.

The concept refers to a rich abstraction generalization. It is not just a simple set of associative connections, but involves an act of thought, of generalization (VIGOTSKI, 1979, 1991, 1993-1997, 2001, 2012). It covers a range of peculiar characteristics that, once composed, can be brought together, converging to an abstract idea. Similarly, comprising aspects, it constitutes, by language, a generality. An amalgamation of attributes makes it possible to understand the relationship with a certain meaning, even if each subject understands it in a specific way. Even though they are not equal in all their configurations, these signifiers have properties that give them a common meaning, which can be gathered and understood by the concept that represents them. Even so, because they contain generalizing elements, which in some way are socially linked, it is possible to understand that it is a certain concept that is a generalization that contains meaning materialized in word. It has a concreteness that flows into theoretical materiality or it is theoretical materiality that resulted from a concreteness. A generalization (which has an abstract-concrete "concreteness") materialized theoretically in word.

The concepts of climate or network, for example, come together in a generalization that allows us to understand links as meanings. A concept is constituted as an opening to reflection that (not only), in school education, brings a mediating element to the reflections. The analysis of the concept of climate and network, then, in the case of Geography, can be triggered from the perspective of the categories: *place* (which has the specificity of ending together), prioritizing relationships between the "where(s)" differently articulated and crossed (relational); of *territory* (which allows reflection from the perspective of appropriation, of power over a given area), privileging the perspective of relationships of "power (property and appropriation)"; of *landscape* (which focuses on the arrangement - not only visible - resulting from

the interactions of the elements and actions in a given place and time), giving emphasis to the elements "in a place, in a time"; and *region*, by privileging relationships "between places" based on some chosen criteria.

Geographical categories

They are the categories that guide the spatial reading in the discipline of geography. They serve to think about the geographical space that is the central category to geographical analysis. In discussing what he considers traditional categories, Milton Santos (2008a) highlights the region, the place, the landscape and the territory from the urban-industrial perspective and the relations with the countryside, as more current readings that consider production and circulation. He points out that "theorization depends on an effort of generalization and an effort of individuation" (p. 65). This perspective is close to the possibility of theoretical peculiarities of the category in relation to the concept, because it encompasses epistemology and methodology; a scientific-educational categorization, because "generalization gives us the list of possibilities; individuation indicates how, in each place, some of these possibilities are combined" (SANTOS, 2008a) and how they can be understood and interpreted. All these categories are instituted as political, economic and socio-cultural networks in which links and limits serve as horizons on the road to spatial analysis. Milton Santos (2004, 2008a, 2008b, 2008c) discusses them as analytical categories, while arguing space as a permanent category.

[...] It would be a universal category filled with permanent relations between logical elements found through the search for what is immanent, that is, what goes through time and not what belongs to a given time and place, that is, [...] the transitory, the fruit of a topographically delimited combination specific to each place (SANTOS, 2008b, p. 151).

The categories that Milton Santos considers as analytical are also respected in the analyses interested in thinking about the Teaching of Geography. The specification of the category can, then, be established more by the relationship than by the separation between concept and category, when the concept is analysed as a form of (spatial) analysis, in the sense that, from the very beginning, from the willingness to think, the category has as its presupposition the summoning of the subject to participate in the reflexive process, which involves comprehensive concepts from a chosen perspective. This perspective of analysis includes the clarity of the theoretical scope of the object and the concepts involved. Thus, having space as the central category and object of Geography, Santos (2004) presents a list of internal analytical categories that should serve spatial analysis.

Among them are the landscape, the territorial configuration, the territorial division of labour, the space, produced or productive and the forms-content. In the same way and *with the same starting point* the question of spatial cut-outs arises, proposing debates of problems such as that of the *region* and that of the *place*, that of the networks and the scales (SANTOS, 2004, p. 21, our highlights).

In this sense, cut-offs cannot be treated as fragments, but as criteria for analysis, highlighting here the issue of the scale of analysis. Milton Santos suggests that the analytical elements can be understood as categories of analysis that, "forming a system, must combine existential content, that is, must reflect the very ontology of space, from structures internal to it" (2004, p. 23). Haesbaert (2011) questions the meaning of the category in common sense simply as a "set of species of the same genus. [...] gathered under a certain level of generalization" (p. 109). Aristotle proposes categories as fundamental modes of being, and Kant as fundamental modes of knowing (MÜLLER; HALDER, 1976, p. 66-67), because he understands that categories "do not describe reality, but make it possible to explain it" (MORA, 1998, p. 82). In the context of these propositions, Haesbaert (2011) suggests understanding category as "a kind of 'broader concept'" (p. 110, author's emphasis), and this explains space as a central category, which serves different relationships from the perspective of place, territory, landscape and region among others.

"The construction of a particular inner science system can only be done if the categories of analysis are adjusted to the category of the real. It is the achievement of synthesis, and no one is unaware that without synthesis there is no science" (SANTOS, 2008b, p. 149). This helps to think about the categories, distinguishing them by being understood as perspectives of analysis scope that are related to the object in a given field of knowledge, as we have already stated. In other words, they are instances as focal lenses from which an analysis can be glimpsed. This configures a choice, in the context of which the researcher or the interpreter opens the reflection based on certain theoretical aspects that lend themselves to the analysis of the central object; an analysis that brings to debate some elements that, in another way or inserted in another category - such as daily life, for example, immersed in the category of place - is obscured. By specifying the daily approach, the risk of weakening the category already recognized in its specificity (the place) and weakening different (though related) notion that it is intended to raise (the daily) is avoided. Analytical categories "reproduce, within the idea, the totality of processes, as they are produced in *reality*" (SANTOS, 2008b, p. 149, author's highlight).

We take Haesbaert's (2011) reflection to point out that each category is also configured in a concept and that these serve for analysis from the

perspective of the category and, the latter, to read certain concepts. The category is peculiar in that it presents itself as an "analytical tool and methodological resource" (HAESBAERT, 2011, p. 115). As a category, which emphasizes a "particular perspective or way of looking" (id. p. 116), it serves as a parameter for the reading of other concepts in addition to those used to carry out this focused analysis.

By opening to analysis that focuses on "some properties and/or dimensions" (HAESBAERT, 2011), the category has a function to serve also as methodological movement in each field. This is because it allows us to extract analyses at different scales and levels of interpretation of the concepts present in each cut-off that we intend to debate. The choice of a category to carry out the analysis requires prioritizing some and minimizing other elements and aspects of a site. This allows us to focus, with greater precision, on certain predicative that we wish to highlight. In other words, we highlight and accentuate some and crush other aspects of a portion of the space that we intend to consider in the study.

Since it involves attributes that concern a subject, the category refers to the different points of view from which subjects interpret and thus construct the paths by which it is possible to know. There are several ways of interpretation and expression of the subjects. The geographical category thus focuses on highlighting some aspects of geographical space. This is an important perspective of analysis because it is not possible to consider all aspects of spatiality. In the local, regional and global space, seen from the perspective of physical, social, economic, political and cultural spatiality, a multiplicity of movements occurs, which requires an analysis that includes some and excludes other elements. It is an analysis in which there is a kind of handrail selected and which, announced, makes evident the criteria that will be taken into account in the spatial analysis, in a spatialized perspective of looking at a certain area (ANDREIS, 2012, p 134-139). This concerns choices, because the entire curriculum and everything that is worked on at school goes through selection, election and definition of the agenda. The identification of the object will be of little significance if we are not able to define its fundamental categories.

[...] Without any doubt the categories from a purely nominal angle change their meaning with history, but they also constitute a permanent basis, and therefore a permanent guide to theorizing. [...] It is the factors concerning the genesis, the functioning and the evolution of space that interest us in the first place (SANTOS, 2008b, p. 147).

For Milton Santos (2004), the categories are the movement of reality, because they are what open the analysis of concepts, according to certain

perspectives established for this research. The categories are ways of "capturing" (MAIA; ALVES, 2009) elements for reading and spatial analysis; an important proposition, because "even if our category(s) and/or our concept(s) cannot find exactly one answer, or a precise answer, the simple fact of elucidating (in) or making our own questions clearer can already be considered a great advance" (HAESBAERT, 2011, p. 118).

Revisiting these questions in authors who can give us the support to think with a scientific imprint of "making the classroom", we open ways for new looks in order to overcome the reproductive approach in the teaching of geography (which is what we are interested in thinking) and find alternatives. These are sustained or can be sustained from the need to understand that school is the place of learning where abstraction and generalization take place, which necessarily surpasses common sense. It is not easy when we have the reality that we know, be it characterized by the precariousness of the teacher's work - by his/her training and working conditions; by the use of the textbook that provides what and how it should be approached in each year/grade of school life; by the insistent search for methodologies and strategies for the student to learn; by the initial training of teachers that presents itself with innumerable deficiencies; by the continuous training that is, most of the time, a fragmented exercise of offering lectures and conferences and/or workshops as novelties. All this makes the teacher's work precarious, and the geography classes still continue to reproduce sequences of content and information from the textbook.

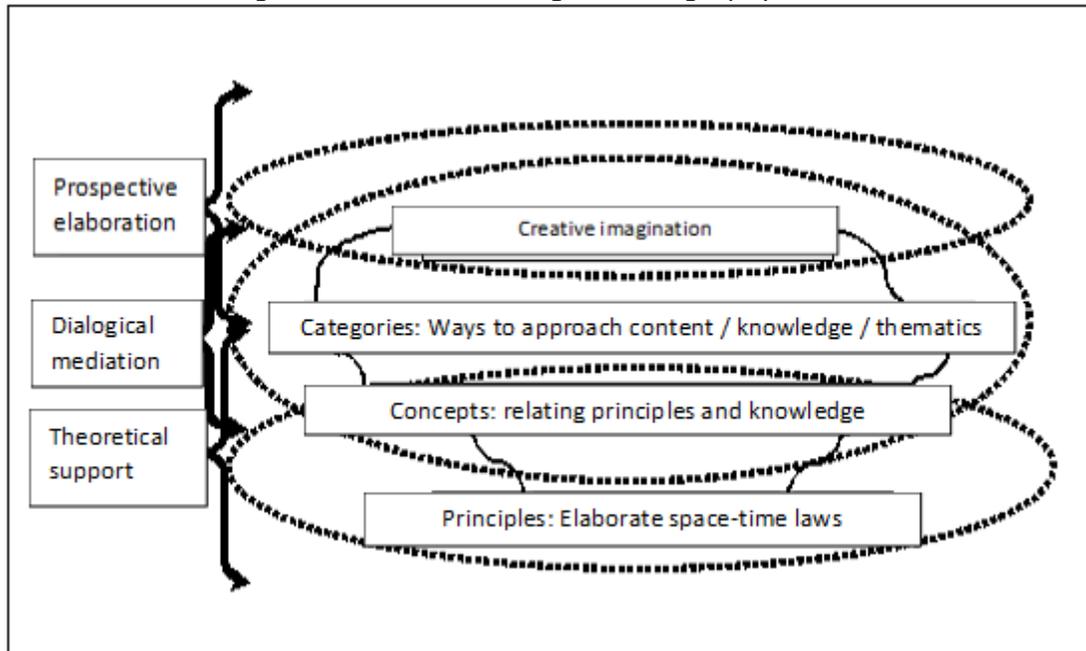
In the thinking and construction exercises of alternatives that are not mere recipes to make teaching work, we seek to produce possibilities. Through the job of researching the teaching of geography and acting in the classroom in teacher training, we develop an argument that has a strong theoretical basis and that does not forget the dimension of the empirical - because we know it. This analysis demands, because of our conviction, to move forward and also to think about the possibilities of doing it differently. Not only to be different but also to think about the practice and the alternatives to advance in the constitution of a sense for the teaching of geography, so that it is more than a mere discipline to compose the school curriculum. And there, flourishes what we call creative imagination.

Dialogical Mediation

Treated as interrelated interpretations, systematisations must be assumed as possibilities, never as fragments and limitations to the creative imagination. It is with this sense that we propose a conceptual map, which can contribute to

thinking about the relevance of theoretical support, as a contribution to the creative imagination.

Figure 1: Dialectic-dialogic of Geography class



Source: Andreis & Callai 2017.

This way of presenting the relationship, which supports the spatial analysis by the geographical bias in the class, must be understood from the dialectic-dialogical perspective. It is presented in the form of a cyclical spiral, since it comprises relations between the senses of the subjects and the meanings, inherent to the educational process of the school, that is, as "purposeful dialogue". This understanding of class dialogues with the discussion of Bulavka and Busgalin (2005), since it involves the assumption that "[...] the subject does not relate to the other in a functional way as a computer and a salesman or as a superior and a subordinate". The relationship "between subjects in dialogue is a relationship between integral subjects qualitatively, whose interaction gives rise to a new (and third) quality, *dialogue*" and "the nature of this qualitative interaction can only be understood in the context of dialectic logic". (p. 6-7, authors' highlight). Therefore, this presentation (in the form of a figure) cannot be taken as a linear and vertical relationship, since it is possible to dynamize the relationships between principles, concepts, categories and the creative imagination. However, by presenting a school perspective, we try to accentuate the "purposeful dialogue", which is why this approach is highlighted.

The figure has three dimensions to express that: (a) the principles are the foundations created and that configure the concepts, (b) serving as a reference

for the relations with the contents, whose approach can be realized through the categories, (c) serving the free, open and new relations. These links dialogue with the perspective of geographic space, thinking of the world as the social dimension (space), which involves the dimension of change (time). It results, therefore, from the dynamic and dialectic relationship, opportune in the geography class, based on space-time principles of a theoretical nature, which are elaborated (basement), to serve as a reference for the analysis of the themes put into question in the class (house). This provoked relation puts in dialogue the singularities of the subjects and the generality of the principles, concepts and categories, which open to the creative imagination, as creative and creator elaborations of the world (attic). It should be noted that in the figure the concepts are situated between the principles and the contents, because we understand them as notions articulated with the principles and that, in class, they understand the singular axis of each discipline. In this way, the concepts surround the contents read by means of categories, which inhabit the house. Concepts, categories and contents are, then, as more visible processes in the body of the classes, as devices involved in dialogical mediation. The principles for understanding the theoretical support and creative imagination, for involving prospective elaborations, involve what we call "here" and beyond the classroom, therefore, less visualizable.

In that sense, too, imagining admits it, but it cannot be confused with fantasy. We assume this proposition because we understand that imagining dialogues more closely with creative thinking and free creation, while fantasy dialogues more closely with free creation. And, the class is the space-time for the "purposeful confrontation" (ANDREIS, 2014) of ideas, which takes place between singular subjects of a social nature, in which this complex process - interested in thinking the world - is set in motion.

Principles, concepts and spatial categories are constituted in theoretical links, which singularize the geographic analysis in the class, because it is necessary to establish a base, even if this base is chosen (which it is clear it is) and provisional. It is the possibility to advance prospectively in the reflection. The effort of this conceptualization is understood as a path and a key to open to reflections about the contents in the Geography classes. This understanding is not from the perspective of exclusion, which makes one visible and invisible to another, but from the relationship, since it is assumed as dialogue and, interested in recognizing the object proper to Geography.

Cartographic projections, climate, networks, relief, orientation, politics, society and economy, among others, are examples of concepts such as generalizations composed as acts (open, provisional) of thought, as ways of

understanding arranged, according to certain chosen aspects, supported by the attribution of certain focus. They are involved in the spatial analysis carried out from the perspective of the geographical category. They are concepts that, in some way, are objective and have in essence the relationship with the objects and actions that are processed in interaction in a given spatiality. The categories are intertwined by common concepts that serve to the effort on which we throw the focus and the criteria for the analysis.

This reflection allows us to state that school contents can be understood as reflexive devices and assumed as geographic, if analysed and understood as linked in principles provisionally elaborated. To these are related the concepts, which are generalizations that allow to read the subjects highlighting the special bias. The categories, in turn, are paths offered as ways of thinking the space. Reflecting on these relations, to think about what sustains the spatial analysis by the geographical bias in teaching, this discussion proposes to contribute to the geographical education.

We can call as knowledge or content of the class the topics discussed in it. What we need to be clear is that they should not be treated as mere information and/or data that express watertight realities, and that can serve as the analysis in different areas. Therefore, it is important to consider that there is a "basement" (geographic references: principles), which supports the "house" (contents of the Geography class, intermingled by concepts and categories). These are the foundations that allow building the "attic" (prospecting, creative imagination). The reflection is always based on links of meaning.

Conclusion: Power Here and Beyond the Class

Returning to the metaphor of the basement and attic of the house we can outline the construction of an understanding of what the teacher's role could be if the effective conditions exist for him/her to be the protagonist of his/her task in professional life. We reiterate in this sense that we do not agree with the existence of external and distant rules from the teacher. Any proposal to direct the school's teaching and learning action requires that the mediator (and this is the teacher) has control of the process. To this end, the question of training is taken up, which needs to be consistent and coherent with the parameters of science that we teach and the pedagogical dimension that needs to be considered when dealing with content.

There must be a set of ideas and propositions that support teaching so that it is accessible to all students, and make them able to insert themselves into adult life as subjects exercising their citizenship. And, moreover, so that they can exercise at this time of their lives as students the condition of being subjects

who understand their role in this world, now as students - children and teenagers. Only through the realization of the actions that in this time and space fall to them can they constitute the basis for their future, because we understand that the school has to create the conditions for everyone to exercise their citizenship and understand the place-space and time in which they are living. The future is not useful to take as a base, "because of it only he himself - the future - will say". And in this sense, at school, the student will have access to what humanity has produced, and the teacher will have to mediate so that the learning processes are effective. Not only of the content (also of this one, with no doubt), but of abstraction exercises that can open the ways of knowledge so that thought is mobilized.

The propositions that arise from public policies for education need in this sense to be welcomed through the criticism that stimulates thought and the thinking that stimulates critics. We live in a country that has a very large territory, with very diverse cultures, with immense social differences, with stories of places and populations (of the students) that cannot be subjected to a regulation that will simply charge them with certain contents, skills and competencies defined to all as if there were homogeneity. Something must exist that establishes the parameters of a common scenario, but as a reference and not as a detail of actions to be developed. If our effort is to make a quality education so that training allows access to social justice, we need to find paths. Paths that go beyond the definition of unique propositions to all students everywhere in Brazil.

However, in this sense we face the other challenge, which concerns how to consider the access of all students to knowledge that is feasible and appropriate for the exercise of citizenship. We do not believe in minor or better education, in rich or poor schools, because everyone should have access to knowledge, which is an ethical and social commitment. Universal knowledge that is based on the support of abstraction and not simply on the mere reproduction of information. There are diverse realities and these should be considered having a common reference, but it should not be a prescribed curriculum or proposition that cages everyone in the same interest. What counts is to form for life. Then we have the need to consider the close reality, and the context in which we live and where the schools are. How to make this process move so that we have the reference that is for all students, without distinction of conditions to which they are subjected, has been our challenge.

Our understanding is that we need to develop *geographical thinking* and for that, clarity and understanding of principles, categories and concepts are the basis. That is to say, this dimension refers to the basement, which supports all

the architecture of the house and without it the teacher will be at the mercy of applying external proposals to his own teaching exercise. And in this sense the teacher becomes an easy prey to propositions that claim to be innovative and technological methodologies and devices to overcome classroom difficulties, which does not happen, successfully, or very rarely can be effective.

Our challenge is to elucidate the possible paths for this geographical thinking to be developed, and this requires developing one's own thinking. A thought of resistance to move forward in the face of what is traditionally placed and which is already part of common sense, but without neglecting to pay attention to what has historically been produced by humanity. This thinking of resistance can outline paths from the exercise of criticism, which requires knowledge in order not to fall into easy discourse. If we are able to think - and we believe that we are - we will open the way for meaningful learning.

If we have the basement well-founded and well clarified, and if its role is understood, in the continuity of our metaphor approach, we will have the capacity to build the attic with the singularity that requires us "to do pedagogic". The geography lesson is based on the clarification of what these contents are for, and it has its constitution here in order to be carried out with significant results for learning. And this without falling into the simplification of the approach of contents for memorization or the development of skills that refer to the fast world only, instead of being constituted with solid arguments to be the basis of life.

We concluded the argument by affirming our proposition on the fundamentality of purposeful dialogue, the presupposition of educational action, assuming that the cyclical spiral, space-time dimension created in the class of Geography, is not restricted to it. This is because space as the dimension of the social and time as the dimension of change are involved in all the concepts elaborated. Also, because, as an epistemological process and methodological path, the concepts and principles comprehend relationships that sustain all the classes of the different areas of knowledge, including both Basic Education and Graduation and even Post-Graduation.

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