# The Social Sciences and their relationship with natural and biological aspects of the Subject

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ABSTRACT: The present work aims at the epistemological rupture of science, and shows the academic reflections carried out during the postgraduate course entitled "Epistemology, theory and research methods in Social Sciences", taught in the Postgraduate Program "Integration of Latin America (PROLAM – USP)", in 2019. The main objective was to restructure the research under development by the group of students, through the point of view of science interconnected with the various determinant aspects in the life of the social subject. As a result of the readings and debates developed, as well as the diversity of the study areas of the participants, the evolution of research projects under construction was obtained, which motivated the interest of the group made of students and teachers in publishing this experience.

**KEY-WORDS** - Epistemology; Complexity; Interdisciplinarity; Time-Space; Totality.

### I. INTRODUCTION

This work begins through the theoretical conception of the thinker Milton Santos<sup>[1]</sup>, a geographer, with long experience in the studies of Geography, especially in urban geography, who, in his scientific discussion indicates the need of an Existential Epistemology for the study of reality in the sciences as a whole. The reflection on the scientific question must, necessarily, consider the concept of totality, since any research must include this analytical category in the center of its studies.

Quoting Milton Santos, "THE EVERYTHING is a reality that we seek to apprehend. THE EVERYTHING is a fleeting reality that is always falling apart in order to make itself again. THE EVERYTHING is always seeking to be another EVERYTHING. It is a process by which the only one becomes multiple. But reality is a concrete TOTALITY of things and actions of the world in motion, where each discipline seeks to explain it. Each thing has a different time. THE HAPPENING is a meeting of many actions in the object. It is THE HAPPENING that has life and real existence. It is the HAPPENING that has the specific

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form of each place: an individuality is an individual. THE HAPPENING is the EVERYTHING becoming existence. THE EVERYTHING gives itself really, objectively, empirically through the particular happenings that are different. THE EVERYTHING is given by subdividing itself, because THE HAPPENING is different. THE EVERYTHING is multiple and returns to be one in the following moment". (SANTOS, 1994: 166-168) [2].

These are the processes, in constant changes, that constitute the history of the world and make the movements of the general towards the particular perceptible, in a way that it is holistic.

Returning now to quoting Milton Santos, for whom it is not possible to talk about Totality without considering the concept of a split, because, that way there would be an emptying of movement and, considering a world without movement, a country without movement, a city without movement, History would be being subtracted.

It is the History that says that the One is multiple, in the following moments to return to be one, in the next moment. It is not just the EVERYTHING that explains the multiple; the multiple also explains EVERYTHING. It is the law that justifies the insertion of each place in the total space and the criterion of analysis that considers the concrete happening in each spot of the Earth.

In this discussion, there is also the need to incorporate local culture into scientific studies; without that, science is at risk of being alienated from the BEING it is intended for, as well as the need for scientific disciplines to be associated with each other, in order to contemplate the human Subject in all its material, biological and social scope, under the perspective of the Epistemology of Complex Thinking, by the French sociologist Edgar Morin<sup>[3]</sup>.

Thus, several other authors who are included in the study of epistemological change are approached, as can be seen in the development of this article, which presents the work of a group of postgraduate students from the University of São Paulo, coordinated by us, and who have reformulated their research projects in development, as can be seen in the conclusion.

### II. DEVELOPMENT

The development of this work started from the theme "Social Sciences and the Nature of Man", about which the debate proposed here has an epistemological approach and considers time as a basic element for the study of social phenomena.

From the coexistence between researchers from the various areas of knowledge, a question arose: is there any area where time is not a fundamental issue? In the search for an answer to this question, it was concluded that, most likely, this is a common element, when considering the different areas of knowledge.

The scientist Ilya Prigogine<sup>[4]</sup>, winner of the Nobel Prize in Chemistry in 1977, contributed a lot to this, showing, in his work, the science of the 20th century in real transformation, going through an epistemological change capable of inserting the human being in the natural world. This theoretical framework leads to a reflection of a new understanding of reality, which considers nature as an essence, and, from the study of temporality, fundamentals that enable a new alliance between man and nature arise. Thus, time is no longer just a physical phenomenon, but becomes the fundamental concept of science, especially when thought from its most important characteristic: irreversibility.

Prigogine's view<sup>[4]</sup> highlights the "uncertainty" as an intrinsic element to science and, by emphasizing the irreversibility of time and the end of absolute certainties; he walks alongside the physicist Albert Einstein in proposing an alternative Science to Cartesian propositions. In this sense, the author's theories reveal possibilities for valuing scientific results from the exact sciences and nature, in contribution to the social sciences.

Furthermore, the knowledge of the exact sciences and nature presented by Prigogine helps to understand aspects such as the entropy involved in the teaching and learning process; in accepting uncertainties;

the limits of predictability, and can reveal bifurcations that expand the possibility of understanding the phenomena involved in it.

Prigogine points out that man faces a challenge contained in the relationship of this being with time, which involves an existential problem of knowledge. You live on earth for a period of **time**. Existence **time**. Coexistence **time**, leaving your marks. To know. To record knowledge and to share it.

According to his theory, the **time-space** relationship breaks the temporal symmetry. One of the first defenders of this symmetry was Isaac Newton, proposing that **time** does not depend on history, indicating a deterministic logic for the interpretation of science and the world. However, Prigogine makes use of the cosmological concept, which is valuable to understand the rupture of the linearity between past and future, as well as the resulting interactions.

The **time-space** relationship is a phenomenon because it presents itself in an objective and subjective way, concomitantly, while being a process because it is in constant construction and mutation. This relationship is defined by the Subject and by the cultural, social and political practices, by the institutional organizations and their capacities of influence, by the nation, by the group of nations, by the dialectic between the local and the global, Subject and institution, past and future. The space is one and multiple, it is a human and cultural construction, just like **time**.

Science is the place of dialogue between man and nature, as Ilya Prigogine states. However, modern Western thinking was built on the dichotomy between these two instances: nature, passive, a mere object, and man, an active subject, with the task of knowing and dominating nature, as if he was not part of it. This is just one example of so many other boundaries created by rationally Western oriented knowledge. The science conceived through this optic has become fragmented and decontextualized, suppressing and weakening the possibilities of apprehending the complexity of reality, time and space.

In its turn, the epistemological issue, emphasized by the geographer Milton Santos<sup>[1]</sup>, is of an existential kind, and the **time-space** relationship, developed by him, dialogues with Prigogine's ideas, when it comes to overcoming the Cartesian view of science.

According to the author:

[...] if the universe is defined as a set of possibilities, these belong to the whole world and are theoretically reachable anywhere, as long as conditions are present. The place is the meeting between latent possibilities and pre-existing or created opportunities. These are limiting for the realization of occasions.

(SANTOS, 1994) [2].

In the field of cultural epistemology, researcher Cremilda Medina emphasizes that this is the keynote of scientific studies for reflecting on reality in the South Global. In this line of thought, also proposed by thinker Edgar Morin, the work called "Sun Hemisphere" emerged, which visualizes Latin America in all of its complexity, highlighting the hybrid cultures of the continent. Keywords in this context are complexity; the diversity of cultures; hybridisms; transculturalism; dialogic approaches, among others.

Morin, in all his work, highlights the importance of complex thinking, which weaves in a single fabric all the characteristics of the Subject, from physical, biological, natural, to cultural, social and, mainly, affective. Therefore, the Subject must be considered in its entirety, in a continuous effort of understanding by social scientists.

Thus, for the development of students' research projects from the discipline "Epistemology, Theory and Research Methods in Social Sciences", of the Postgraduate Program in Integration of Latin America, at the University of Sao Paulo (Brazil) - PROLAM / USP - a debate of ideas initiated from the book by the Italians

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Giovanni Sartori and Leonardo Molino, *La comparación en las ciencias sociales*<sup>[6]</sup>, and now, as to proceed with this article, the main ideas of these projects are presented, which are being thought in an interdisciplinary way, as the basic methodology of scientific work.

### III. RESULTS

The readings and discussions developed with the interdisciplinarity of the participants, contributed to the resumption of projects under development, with a new perspective. This result is presented below in the form of a summary of each research under development, organized by area of knowledge.

#### 3.1. Information Science

Digital interfaces for online teaching and learning Author: Laudiceia Lino de Alencar Rodrigues

The interface of a Virtual Learning Environment (VLE) is considered a "space for exchanges", based on the mediation concept according to the approach of Martín-Barbero<sup>[7]</sup>. This space mediates the contact between student and information and promotes transformations with the purpose of generating new knowledge for those who access it.

When accessing the referred exchange space, each person is physically situated in a different space and an individual context. This implies that the construction of senses and meanings created from the information that users receive through the VLE interface is different for each subject. Added to this is the increasing number of people who prefer or have a mobile device (for example, a cell phone or a tablet) as an only option to access this interface.

Through this approach, it is conjectured that new concepts can be implemented, possibly by means of technological innovations, in order to improve the conditions for cognitive access and appropriation of information by the subject who studies through VLE on a mobile device. In this case, the complexity pointed out by Morin<sup>[8]</sup> is fundamental to have a broad and embracing view of the research. In addition, the knowledge of the exact sciences and nature presented by Prigogine<sup>[4]</sup>, helps understanding important aspects such as the entropy involved in the teaching and learning process, in understanding uncertainties, in predictability limits, which can reveal bifurcations, expanding, then, the possibility of understanding the phenomena involved.

Based on the Existential epistemology by Santos<sup>[1]</sup>, this study must consider the being (the person – student - who receives information in its unique meaningful context) and the becoming (the person transformed by new knowledge).

If, according Medina<sup>[9]</sup>, in the area of communication, "dreaming is necessary, because we potentially have resources to produce meanings in which ethics, technique and aesthetics are at the service of a humanizing strategy for Journalism", this same thought can also be applied to Education, which is transformative and undergoes great changes, driven by new social and economic paradigms.

### 3.2. Communication Science

Migration flows and Identity in Latin America - The case of the *Kichwa Otavalo* Author: Juan Carlos Morocho Rodriguez

Contrary to the paradigm of an only linear time, of nature as a material object and, in order to get rid of "progress and development" as a positive referent, there are groups of people who do not have a historical temporal consciousness, with no relation of symmetry between past and future. Populations coming from ancestral worldviews that confront classic neoliberal and developmental models, among them, those of the Kichwa ethnicity, from countries such as Bolivia and Ecuador, lead a process of turning the economic matrix

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based on a humanitarian development proposal. The origin of this development alternative can be seen in the *Plan Nacional del Buen Vivir* itself, which was later approved and inserted in the new Federal Constitution of Ecuador, in 2008.

Conversely, in nature, the notion of development is a naturally cyclical movement. With Buen Vivir, nature (re)acquires this unfolding: as a living being and, therefore, limited, subject and object of care, never as an inexhaustible natural resource. It also incorporates a dialogical relationship among nature. Living with understanding, solidarity, reciprocity, respect, complementarity and balance. This means that the purposes of development depend on ethical imperatives.

Time in Latin America does not just follow a linear, progressive, evolutionary, sequential logic as idealized; on the contrary, "they come from the heritage of cosmologies and worldviews loaded with metaphysical questions about the development of things, plants, beings and social life, which often presuppose reversible and non-linear temporalities elaborated by mythic thinking" (SILVA, 2000, p, 90) [10], in which time is circular, comes and goes and which part of the historical and social becoming of people is always on the move.

#### 3.3. Law Science

Human dignity and the meaning of work in the face of digital technology Author: Paulo Sérgio de Castro

The research involves the search to understand, through a contact marked by the horizontality of the relationships, the meaning of work as a value and intention for workers who perform simple tasks - porters, security guards, janitors.

Through a cultural Reading, the subjects of the research themselves are thrown into these worker's narratives, as the center of information. It also seeks to identify whether the changes and transformations that occur over time include changes in paradigm or mentality, perceiving work as a form of belonging or comparison. It is also seeking to understand whether changes in how work is seen encourages its perpetuation, or there is no change of idea/human reasoning, which conditions the human beings to always have to adapt themselves or incorporate new transformations in the world of work, under the condition that their perceptions of the sense of work lead us to understand that, through work itself, and only through work, human beings can achieve satisfaction and their dignity, as a form of personal identity.

It is important to consider that work, undeniably, has always presented itself in the history of the human being. Its relationship with the human being presents, on one hand, a struggle between creator and creature, a struggle of social relations; and, in different guises, work is invariably associated with human beings. Always, like any other subject, permeated with uncertainty. Not with certainty.

### 3.4. Geographic Science

## 3.4.1. Market dynamics and consumption in the production of urban space Author: Aparecido Pires de Moraes Sobrinho

Trade materializes in different types and formats. Its forms reflect different periods and economic, social and technical transformations in the capitalist system (PINTAUDI, 1997) [11]. Therefore, "the store and its shape portray the development of commercial activity in time and space, respecting new forms of production." (ORTIGOZA, 2009: 40) [12].

What was predominant in Brazilian cities in the 1940s was the so-called traditional trade. These small companies used to sell a limited quantity and variety of products to the population, as their physical could not

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hold large storage. From the 1950s onwards, retail trade started to offer a huge variety and quantity of products. This change took place after the introduction of large commercial areas (supermarkets, shopping centers and department stores), which demand large spaces and offer a huge variety of products (SILVA, 2002) [13].

Consequently, small retailers, with not enough physical space, have no option but to buy small quantities and varieties of goods. This fact raises the final price of their products, making them less competitive and taking them to the end of their operations. This is what Pintaudi<sup>[14]</sup> points out when mentioning the central area of São Paulo in the 1980s: "[...] small establishments such as greengroceries, grocery stores, etc., either started to operate as supermarkets, or became sophisticated, or changed address or business".

To describe the dynamics of large stores and small supermarkets is a step to identify the relationships that consumption plays in the production of urban space. From this description, it will be possible to identify the processes and determine the nature of their relationships. Then, it is necessary to take into account the transformations that consumption promotes in the production of space and it is necessary to approach the theme with a multi-scalar look, starting from the global to the local, having as its north the temporal and spatial question of Geography.

Santos<sup>[1]</sup> expresses that, when thinking about the production of urban space in Brazil, it is necessary to seek answers in the tertiary sector, that is, in consumption and not in the mode of production. The author also says that it is necessary to look for explanations not only in a science, but also by aggregating diverse knowledge, because the interpretation of reality must take into consideration not only the vision of a science, but also a collection of knowledge.

Morin and Kern<sup>[15]</sup>, are of the same opinion as the above exposed, because, when speaking of science, they emphasize the need for a global view, an existential epistemology of multiple perspectives, not only in one or another segment of science. According to the authors: "We could not consider the economy as a closed entity. It is an autonomous instance dependent on other instances (sociological, cultural, political), which are also autonomous / dependent on each other".

In this respect, it is necessary to create a Latin America science. In the words of Lemos<sup>[16]</sup>, it was during the first Meeting of Geographers in Latin America (EGAL), held in the city of Rio Claro (Sao Paulo - Brazil) in 1987, that the participants realized the need of thinking about the production of space from a new perspective, one that would not be from the so-called central countries; one that would be native and thought taking into account Latin America.

Studying consumption in the production of space from the perspective of Geography requires expanding the horizon beyond certainties and dogmas.

### 3.4.2. Subjectivity and Totality: Literature as a possibility to study human complexity Author: Rodolfo das Neves Barbosa de Lima

As shown above, the Cartesian view of knowledge and the Modern view of Time favored Positivist Rationalism as the only way to get to a supposed knowledge of reality, which has always been considered as the "Truth". It was possible to verify, through studies carried out by scientists, such as Ilya Prigogine, Milton Santos, Cremilda Medina, and others, that Modern notions are absolutely questionable, and that it is necessary to find new epistemological possibilities that contemplate the Complexity of phenomena. Thus, in the final stage of this brief essay, we seek to show how literary analysis can contribute - even if minimally - to the construction of another way of scientific approach of reality.

Initially, considering different literary genres as important sources of scientific analysis allows us to break with the disregard for human subjectivity that resulted from the positivist view of knowledge. The analysis of characters, author, Space and Time lead to an approach in search of the Totality of human phenomena. Oliveira<sup>[17]</sup> quotes Antônio Cândido: "the literary work is the result of the sublimation of social data [...] they make it the expression of a society and of a historical moment"

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The idea that Literature is the expression and product of "a society and a historical moment" is essential for the scientific approach - in this case, the geographical one - of a given human phenomenon, since it leads to the need of considering its Location, in addition to understanding the vector networks that act in its conformation.

Based on Oliveira's ideas<sup>[17]</sup>, the "Relation" category is also essential in the approach of Literature by science. According to it, through the literary work it is possible to understand "the relationship between men, the relationship of men in society with nature, and the relationship between places". Thus, "we are not talking about the sum of relational events, but about the whole, that is, the totality"

"Relation", therefore, is understood as the entanglements that may arise from different vectors forming the same phenomenon. For example, one can look through the interpretation of the "Cultural Identity" of a certain character or author, the actions of the State, the Market, and religious institutions. One can also consider the Society's Relations with Nature, which can come from Work and the Model of Production, but also from the cultural sphere through religious beliefs; the "Relationship" can also occur through scalar differences, that is, what is shown as a result of the regional, national or international scale.

#### 3.5. International Relation

### 3.5.1. Migration studies from the perspective of complexity

**Author: Bruno Moda** 

How to develop comparative research considering the complexity of migratory studies? This question arises from the clash between the complexity and the dialogical logic sought by Morin<sup>[15]</sup>, Medina <sup>[9]</sup>, Santos<sup>[1]</sup>, Prigogine<sup>[4]</sup>, and the determinism proposed in methodologies of Cartesian and positivist origins that at times permeates, for example, the performance of comparative research proposed by Sartori<sup>[6]</sup>. From the many characteristics and processes of a comparative study, one of them is the definition of the object followed by its classification.

Classification is, by definition, a determinism that intends to organize an element from its delimitation. The interaction of a classified and defined block may or may not interact with others in the same or external field. Is it possible, then, to make use of a complex comparative method?

Taking Morin's holographic principle<sup>[8]</sup> as an example. Considering the immigrant who arrives to a certain city (which is already a system to some degree consolidated, but at the same time it is changing). What does the immigrant do in the city? They seek insertion in multiple spheres: physical, social, economic, cultural). The insertion, by itself, does not take place purely by reproducing the characteristics and behaviors of that system; therefore, the insertion is already an amalgam. When the immigrant reproduces/manifests his/her roots/nationality/native culturalism in the place of destination, he/she no longer reproduces them the way he/she did in his/her place of origin. Thus, a given immigrant community does not fully reproduce its way of life in the destination. Let us also think of the cases of people who return to their country of origin after a period as an emigrant. Such people are no longer the same and have different social characteristics from those they had when they were initially in their own system of origin.

The migrant subject is complexity and interdisciplinarity themselves, as well as the big cities, especially the world cities as Saskia Sassen<sup>[18]</sup> designated in 1991. The migrant impacts and is impacted by their destination. This impact is complex and multidimensional: economic, social, cultural, religious, intellectual (considering the plurality of knowledge). The immigrant is subject and object concomitantly, in time and space, adaptable and adapted. A transformed and transforming individual if we consider, for example, the cultural perspective proposed by Dussel [19] through interculturality - (there is no cultural purism) in the same way that the individual has a holographic dimension. It is equivalent to say that the migrant as subject and object is unique and multiple, is all within one, one composing the everything, similar to the creation of the universe,

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from the theory of instability where there is the universe and the meta-universe, one composing the other dialectically (PRIGOGINE, 1998) [4].

Moving towards complexity, it is possible, for example, to think about the issue of migration in world cities from international relations' point of view. There are two sensitive external variables in this proposal. The first refers to the contemporaneity of the three axes of this research: migration, global cities and international relations. Umberto Eco<sup>[20]</sup> establishes the term "organizational typology" as a way of transforming a current topic into a scientific topic, starting from a delimitation, which is complete and uses the sense of wholeness, tough. The second is that, for these axes, contemporaneity is synonymous with review and conceptual criticism. This is due to the advancement of telematics, changes in the models of global governance and the rise of civil society in all these fields, which have caused deep changes in classic concepts and in their isolations that traditionally marked such axes. It is not possible to displace, for example, the interrelationship between migrant subjects and cities, cities and the globalized world, and the transnational relations that permeate this atmosphere. It is the complexity and critical thinking themselves which provide the epistemological bases that allow the development of a dialectic, critical, multilevel, multi-actor, multi-subject and multi-object analysis.

### 3.5.2. The impacts of the Venezuelan migratory crisis on Latin American geopolitics Author: José Cristovan de Góes

During this second decade of the 21st century, Venezuela has been facing an economic, political and social crisis with no precedents in South American nations. To escape the crisis, more than 4.6 million Venezuelans had left the country by October 2020, according to the United Nations Refugee Agency (UNHCR)<sup>[21]</sup>.

Also, according to UNHCR, the exodus may have been greater, since the organization counts only Venezuelans who left the country through the control sites, without registering people who left through land frontier trails and foreigners who used to live in Venezuela.

In the 19th century, the reception of immigrants was motivated mainly by the opportunity of jobs in coffee and cocoa farms. In the 20th century, the flow of migrants to Venezuela was due to the growth of economic activities made possible by the exploration and commercialization of oil in the country, which deposits, according to the Organization of Petroleum Exporting States (OPEC), are the largest in the world confirmed until this day, estimated to be more than 300 billion barrels of the product.

The peak of oil production and export occurred between 2003 and 2014, when the oil barrel exceeded the mark of U\$100 a barrel, when the country was even called a Venezuelan Saudi Arabia. Due to the drop in the oil's price on the international market and structural misalignments, Venezuela's production started to drop rapidly, with a mark of less than 900,000 barrels per day, according to an OPEC report.

In addition to the largest oil reserves, Venezuela is extremely rich in gold, coltan, phosphorite and iron that makes the country a power of mineral resources, but, paradoxically, poverty is increasing. It is also perceived that the government has not been successful with the economic measures of price and exchange controls; the nationalization of companies and restrictions on private capital are also pointed out as causes of hyperinflation and shortages in the country.

In this sense, it is emphasized that the causes of the humanitarian crisis in Venezuela are of several levels and complexity, and, to delimit this research, attentions will be concentrated on the issue of the migratory crisis. Abdelmalek Sayad<sup>[22]</sup>, a researcher who is very familiar with the migration phenomena, states that, for an immigrant, nothing is natural, nothing is evident, all ancestral certainties are called into question, whether he wants them to be or not. Objectively, the emigrant is confronted with the limits of his most intimate beliefs and habits of thought. Doubt is installed in the order of things. He may return, but this will have an impact on his image with his neighbors, shame will be haunting him from different points of view.

With this research, it is hoped to understand the causes that led a significant portion of Venezuelans to leave their country, to risk their lives in unknown territory, and start a different life basically from scratch. It is

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hoped to understand the political, economic and social history of Venezuela and the relationship with the socalled "Oil Evil", a theory according to which this anomaly affects most countries with large oil reserves, where the high financial gains from a resource, concentrated in the hands of those who exercise executive power, have caused disharmony with other state powers and have harmed more than helped the development of these nations and their populations.

The intention is to identify the possible consequences of Venezuela's migration crisis for Latin American countries and how it can affect the region's geopolitics and the integration purpose advocated by some Latin American governments.

The idea behind the work is to value the initiatives and mechanisms which allow this Latin America's integration, a purpose also pursued by other academic initiatives, such as those of the Graduate Program in Integration of Latin America, from the University of São Paulo (PROLAM-USP).

### 3.5.3. Human mobility: the frontier's matter Author: Maria Medeiros Palazzo Rolim

A central concept to the migration and human mobility theme, which relates to the epistemological question is the notion of frontier. Although it represents, in its material sense, the limit, the division between two points in space, it can and should be considered at the symbolic level. For a long time, as previously discussed, all sorts of knowledge were separated by epistemic boundaries, polarizing each one of them as expressions of difference; and so it is also in the contact with the migrant, with the Other, when the challenge is to recognize in them a subject of themselves, of their own identity; it is about celebrating the differences in equality (TODOROV, 2010) [23].

With regard to identities, thinking about time and space is crucial so that it is possible to look at reality, through one self's own lenses, which can account for the entire cultural repertoire in which one is inserted, without serving as a mirror of something alien to the other.

Researcher Amália Inês G. Lemos states that:

the existence of a multitemporal and spatial heterogeneity in the region called Latin America, questions the forms of culture's situation due to the reality of miscegenation in the world, metamorphosed by the effects of the mass media. Cultural anthropology reminds us that cultures can blend together, almost without limits, not only develop, but can also be perpetuated. The concept of culture also leads us to consider the place, the region, the nation, the landscape, territories and social groups responsible for its existence, a result of its relationship with its environment (LEMOS, 2018: 120) [16].

As seen in the text above, there is no dichotomy between nature and culture, both are related, they dialogue. Another dialogue that should be sought is between subject and "object"; and this disjunction falls apart when observing the existence of conditioning subjects, especially when the focus of the study are also "men and women just like those who studied them" (SANTOS, 2009: 51) [24].

In this sense, as evidenced by Boaventura de Sousa Santos<sup>[23]</sup>, the production of knowledge simultaneously produces self-knowledge. Despite the epistemological/methodological option of distancing from classical cultural anthropology, it is necessary that these become proximity.

Another important contribution to the research on this theme was the formulation of Prigogine on unstable systems and the constructive role of chaos. It can be stated that chaos is present in the implications of the theme itself: frontiers' transposition, identities' confrontation, life experiences, among others. Just as the study of the subject involves the movement of people, it also implies a movement between different areas of knowledge. Looking at the margins or frontiers allows enriching dialogues and exchanges; it is the place of multiplicity and possibilities.

The field of International Relations itself can be inserted in the discussion about the symbolism of the term frontier. While constituting an area of knowledge, there are contributions from several other areas, such as History, Geography, Economics, among others. The treatment given to the "international" is also present in each of these disciplines, each with its own view. This multiplicity, which is characteristic of International Relations, can generate a sense of disorder, of chaos; however, as Prigogine presents, chaos, in its essence, has a constructive role.

### IV. CONCLUSION

This work made it possible to highlight the relevance of the knowledge areas' intersection for the evolution of scientific research. Research projects with diversified themes, when shared with a group of researchers from different areas of knowledge and analyzed through the view of the theoretical references quoted, could be seen in new perspectives based on the concept of totality.

Unlike other studies, the limitation of this work was not restricted to the conclusion of the discipline in which it was originated. It is understood that the expansion of horizons provided by these new perspectives, will continue to be explored in each research related in the previous topic.

Thus, this work suggests that in addition to the researches explored, other ones may expand one's perspectives following the same path taken by the authors.

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