

Epistemological Character of Sustainability

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Abstract— Epistemology has as its function, among others, to define what provides conditions for examining relations between facts and theories. The question is what does conceptual aspect contribute to awareness and improvement to the relation of capital, labor, and society? Apply the Theory U as argumentation in this relation. The general and main objective of this experiment is to deal with the epistemological aspect of sustainability against the capital, labor, and society based on the Theory U; the specific objectives are collecting the sustainability theoretical-conceptual character to explain its epistemological core (1); identify the relation of capital, labor, and society (2); and identify the conceptual innovation required from the contextualized indoctrinated constitution. Apply the Content Analysis Method and procedures such as cleavage, categorization, and criticism. As result, the conceptual aspect contributes to awareness and improvement of the relation of capital, labor, and society considering the discourses treated; in fragile environments in the western Amazon, there is a latent concern related to solid waste, deserving a conceptual highlight in which the origin of sustainability becomes the emergency; the mechanisms created by capital with domination over human labor, make the worker passive in the society marked by capitalist hegemony; lead structural changes is an epistemological question witch happen pragmatically, increasing the fragile aspect of perception and awareness resulting in innovations to sustained development, motivating learning

where leaders promote changes in complex systems. This article interests researchers and others people involved in theoretical issues to delineate researches in the axis of applied social sciences.

Keywords—Epistemology, Management, Innovation, Sustainability, Theory U.

I. INTRODUCTION

Epistemology has as its function, among others, to define what provides conditions for examining relations between facts and theories. What it does is asking scientific principles, because requires relational relevance. It is possible to consider the epistemology as the core of the research because the fact-theory relation must have an epistemology conflict to affect the contra condition and theoretical principles or other experimental phenomena, and a dialogical process with committed interlocutors may create ideological path face before the truth that is sought to find.

II. OBJECTIVES

This article expectation is answer the question: what does the conceptual aspect contribute to awareness and improvement of capital, labor and society? Therefore the main goal is deal with sustainability epistemology aspect before the capital, labor and society based on Theory U. The specific goals are identify the theoretical concept of sustainability to clarify its epistemological character (1), identify the capital, labor, society relationship (2), and

indicate the conceptual innovation required from doctrinal constitution brought into context (3).

III. CONCEPTUAL THEORETICAL REVIEW

Conceptual aspects identified into capitalism contribute to sustainability epistemological awareness requiring a doctrine to satisfy the complexity regarding the subject. Apply the Theory U as a capital, labor and society relationship argumentation. That theory was proposed by Otto Scharmer and other Massachusetts Institute of Technology (MIT) researchers - who commune the learning and the organization changes -; explores the knowledge in phases, and serve to help other people, singly, or to teams to deeply act before of intention and performance proposal. So, the theory becomes a systematic guide to show the main valid interaction movements to advance the transformation that is transfigured in the letter U on its representative diagram.

3.1 Epistemology concepts

Norris (2007) says to make Science it must openness and democracy of work so that can meet the knowledge complexities. There are the traditional epistemologies boundaries inside some sectors which keep knowledge dissemination. That author argues the cartesianism that represents the holistic prism of the modern demands, and the versatility of the problems.

The fact finding done by Dias (2015) says the pillars and values of sustained development, what evidence the learning about organizational culture and its beliefs. Those supports guide the awareness on learning while redirect to sustainability requirements satisfaction. The author also states the education to sustainability development covers changing of the sustainability concept, now in the cross-disciplinary way, considering the context and using the available techniques to reflective and participative learning. That theoretical dimension results in decision making improvement, in a community plan, in a participative way, socially tolerant, with environmental responsibility, while adjust the work force and life quality. Jacomossi and Demajorovic (2017) compile determinant elements in the organizational learning process that are elucidative before of structural features to sustainability. Those promote deep changes, and collaborative network to the actual mental models. This enables the development of learning competencies, useful to the challenge before of sustainability desired. So it has rigid and methodic characteristics in an epistemological environment because it pursuits the competencies and environmental responsibility development where the making decision capacity can be extended to a social community through the participation that generates a sustainable life.

3.2 Sustainability concepts

Cassar (2013) in his approach about the caring on solid waste is regarding to have attention on utilization and discharge. The author reaffirms the traditional concept about sustainability through the tripod economic, social and environmental factors. He conceptualizes the sustainable development as a way through modern generations satisfies their needs no jeopardizing the next ones. Sustainability can be considered as a transformation process, and the limitations regarding sustainable development are in the management, enhance new Technologies and social organizations linked by educational criteria which begin with awareness.

To Philippi (2016) a new thought for a sustainable business must be based on efficient production processes and includes corporative representative values incubators. Those results in a big mindset changing based on rationality and intentionality which benefit the company and its production chain.

According Dias (2015), the learning to reach sustainability is a process coming from human existence. It promotes the comprehension regarding a critical and active citizenship questioning. Its effects always result on organizational strategies which minimize economic, social and environmental risks. Thereafter, it creates changing on organizational culture, and on the transforming people minds located on social level. The literature can affirm the sustainability bring the best future expectation, including the productive sector provided it includes rational values essentially intentional which creates benefits to the whole society.

3.3 Capital, labor and society interaction concepts

The capital, labor and social relationship are characterized by the subordination to an economic structure regulated by the Market. Dias (2015) sustain the feasibility idea about progress and wealth growing consubstantiated on capitalism aiming profit that submit the work and the society to reach it. The author argues that the buying and consumption came from work force exploitation and natural resources irresponsibly used.

Philipi (2016) indicates to a reality when the economy and sustainability are in intrinsically linked, and are incorporated by organizations on their decision processes, aiming profit and the systematical market maintenance. The author emphasizes that the sustainability permeates the scientific, political, corporate and social environment. That reading allows affirm that capital creates domination mechanisms on human work, in addition to the wage issue.

3.3.1 Conceptual capital definition

According to Fulgencio (2007), the capital can be defined as the means of production created by the work, and used to produce other tangible or intangible assets. The author

says it should not consider natural resources, just social production means. According to him, the economic capitalism system is based on preponderance of capital over the work force, and it is regulated by the market and by the formation prices mechanisms under the demand and offer law. This demand govern intervention focused on common wellness to curb economic crisis which results on unbalanced relation with a Strong consequence all over the system, and on the sustainability required on the processes involved is broken.

A research done by Comparato (2014) says the capital accumulation is the capitalism goal where the existence depends on the Market; the capital becomes an economic and political power tool used in a concealed way. The Max Weber's materialism is reduced when he affirms the capital transforms everything into merchandise, including people (workers and customers). So, the capital becomes the most valuable asset in the life because it transform people and moral into merchandise, depending on the legislation and institutional path which absorb those concepts. The consequence it will be become the human into a walking or a dead weigh once their dignity will not overcome the capital value.

3.3.2 Work concepts

Cassar (2013) says work represent the activity done due to transformation which satisfies the human needs. It pursuits the solution problems measurement once it is created a model of tasks. It can modify the initial conception; promote the maintenance of the human species and the quality of life of those involved directly or indirectly with the activities inherent in this task.

Borges e Mourão (2013) say the work is the man-nature confront; that mediation is done using Technologies, and people relationship. The goal is an activity driven to achievement of their own goals; after that to an object (such as a raw material or nature) and, also, to other people (community). At the same time the work requires an objective where something is produced. The authors affirm worker is the agent who exerts physical, mental or volatile force on a matter to be formed and taken to a Market in the society, oriented to an objective. The performance in the work becomes the set of actions oriented, purposely, to transform the matter that generated some value. So, the value generation is the main goal of the work. Nevertheless that value need be the lowest possible because of the competition. Thus, the human work creates results for the organization to reach its objectives and generate value.

Brito (2013) does abide the human work philosophical concept. Gather actives attributes on spiritual forces, moral or material in the pursuit of the desired. The author affirms in every physical work exist some intellectual task highlighting the distinction between human and animal

labor is the freedom insofar as man can decide stop to do what he does.

All three authors agree that the labor always intervenes in nature, when the man confront it using Technologies, or during then social interaction with or without physical or mental force. The objective is add value and create profit.

3.3.3 Society concepts

According to Martins (2013), at Anthony Ellit and Bryan Turner conception, there is some meanings of society, categorized by structure, solidarity and creation or their combinations. So, it can develop a new category as a tool to understand all global changes: structure – stands out among the social actors the competition, conflict and rivalry; solidarity – concept based on interdependence of members who share the social life, sense of belonging, predominant social unity; and creation – advocates the willingness to promote change on the power structure and praise values such as, curiosity, innovation, communication, joy to a social life, and the tolerance on social relations.

Camargo (2017) sees the society as human interaction system culturally standardized on symbols, values, rules, position and roles. The author indicates that the concept is more comprehensive because it does not reduce just to a set of people in the same geographical space presupposing the existence of the social organization with institutions ruled by laws.

Iamundo (2012) conceptualizes societies are both structured and moved through social institutions, and these are formed throughout history inserted by multiple social and cultural determinations; since individuals undergo social structure and function that are intertwined with institutional norms, i.e. the state, family, school, business, and others. Such institutions and their norms pressure and impose cultural standards that become rules of conduct and promote changes in cultural and social institutions and functions.

The trilogy of authors agrees that society structures itself in social institutions that press social functions and promote changes in culture. These pressures generate conflicts, competition, rivalry; which produce interdependence and sense of belonging within a geographic space determined by the unity of some factors. Strong institutions that overlap with time are those that are inserted historically and impose political, economic, social power and are constitutive factors of society.

3.3.4 Concepts on innovation based on Theory

U can be considered as the argumentative way of the relation capital, labor and society. Or, then, the trajectory proposed by Otto Scharmer is highlighted, in the U that he has diagrammed in order to delineate the path of social

changes required and therefore valid, if applied to the relationship now treated. In fact, the author indicates innovation in his systemic script. In spite of these arguments, it is worth emphasizing the planetary emergency in confrontation with the said Theory. The Theory U can still be treated as a social technology, when associated with complex themes in which learning is involved in the path of change; led by leaders willing to operate conditions from an emerging future. Here the leadership process focused on structural change and

communication will happen in a pragmatic way. It involves the aspect related to perceptive awareness and awareness of individuals; this would be the fundamental credible condition for achieving innovative, effective and effective results. In essence, the proposition is based on the improvement of relations, but serves, as a priority, as an inducer of gradual and process changes, and also because of the adequacy of the structuring means of a systemic nature, as shown in Figure 1, which follows.

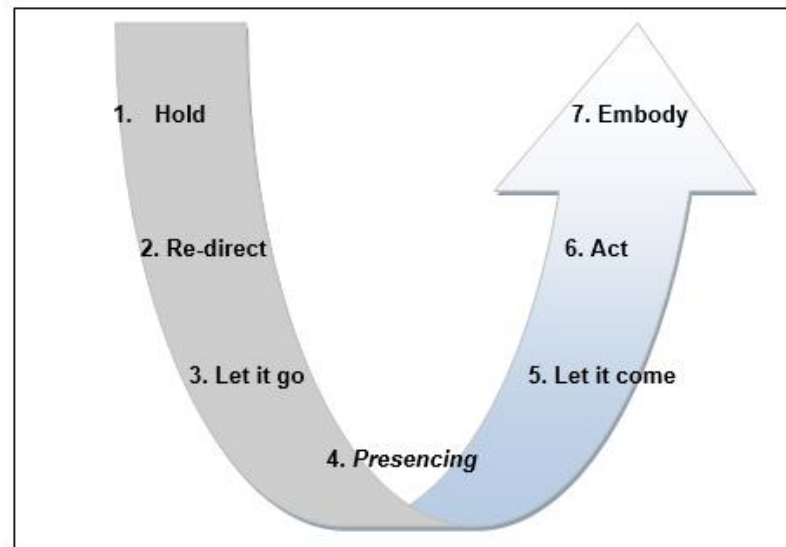


Figure. 1: Theory U focal points

Source: Adapted from Scharmer (2010)

Table 1: Description of Theory U inflexion points according to Figure 1

Points	Description
1. Hold	Suspend judgments so that it is possible to visualize the objective reality with which the individual is confronted, including basic facts and figures; in this paper, includes the sustainability status quo.
2. Re-direct	Paying attention from the object to the process in order to help the leaders see the system from a perspective that allows them to understand how their own actions contribute to the problem about to happen.
3. Let it GO	Identify the models used (which previously seemed to be caused purely by external forces) and perceive internal influences. Stage of letting go of the old model of capital, labor, society and sustainability; initiate the individual connection with higher order intentions.
4. Presencing	This stage, the lower point of the U, marks the movement of retreating and reflecting; which covers the stage of Presencing, where silence occurs to perceive the occurrence in the descent, allowing the inner knowledge to emerge for sustainability in its essence.
5. Let it come	The threshold of the ascending path leading to the space of crystallized vision and intention, which consists in anticipating the new from the future that seeks to emerge; new direction from the external mode to the inner mode of seeing, visualizing the triple capital, labor and society promote sustainability.

6. Act	The development of the inner mode of seeing transforms inner vision into outer action; a stage where living microcosms are prototyped to explore the future by doing - putting into practice the new. Plan the possible practice for sustainability.
7. Embody	Transform the new into actions, infrastructures and practices; incorporate the new in the context of larger co-development ecosystems.

Source: Adapted from Scharmer (2010)

IV. METHODOLOGY

This task is elaborated using Content Analysis Method techniques, recommended in Bardin and discussed in Silva and Fossá (2015). This method is characterized by the use and disclosure of research in Administration. It can provide valid and reliable results with an emphasis in texts analysis since they are cleaved and categorized in such a way as to aid in the understanding of the discourse.

Silva and Fossá (2015) indicate that the treatment of results, inference and interpretation, is to capture the manifest and latent contents contained in the captured documents. A comparative analysis is carried out by means of the juxtaposition of the several categories existing in each analysis, evidencing something similar and different. Figure 2 and Table 2 represents a systematic diagram of the application of the content analysis method, and its specification.

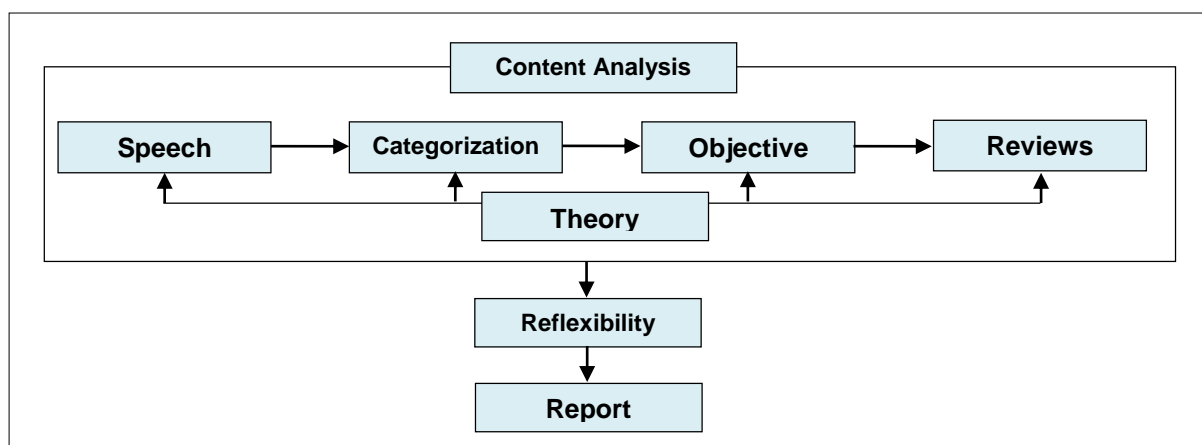


Figure 2: Content Analysis Method diagram, by categorization.

Source: Prepared by the authors.

Table.2: Figure 2 specification.

Elements	Concepts
Content Analysis	Set of message content decomposition techniques for reconstruction of meanings.
Theory	Paradigms, the study basis; Theory U was used in this essay.
Speech	Theoretical and conceptual referential. Table Represents the search of discourses for a theoretical conceptual revision, content analysis procedure.
Reviews	The qualitative research interpretive technique of the companies discourse analysis.
Categorization	Choice of categories, classification and aggregation; way of thinking by inferring the author's subjectivity.
Objective	Messages manipulation to confirm the indicators that allow you to infer about another reality, which is not a message.
Reflexibility	Analytical critical consideration of the discourses as representative for the results of the method of content analysis on capital, labor and society.
Report	Document that presents conclusions, contemplates as interpretations on the epistemological character of sustainability in relation to Theory U. It presents a proposal of action that refers to a socio-environmental strategic paradigm, changing as significations in the final considerations of content analysis.

Source: Prepared by the authors.

A study in Silva and Fossá (2015) indicates that the method of content analysis, when applicable a documentary analysis, comprises six phases: the first is a phase of reading selected documents; several authors published their speeches. However, some are interesting for textual search; this is the solution to your object-compatible and research approaches. The second phase is a formulation of categories of analysis, using the theoretical framework and as indications brought by the reading; a categorization assists in argumentative treatment, but requires a cleavage as cognitive providence without investigative process. The cleavage is a highlight to be categorized in investigative activity. The third step is to cut the material in comparable registry units; in this task, by means of author, and argument, maintaining a database and information according to the authorial part. The fourth phase refers raw data categorized and organized in an intellectual form being able to work. A fifth phase involves grouping by common categories, which is a complete task for each of the specific objectives proposed. That grouping has a

progressive character since it broadens the understanding of the parties that guide the result of the research. The sixth stage is inference with interpretation and report production.

V. STUDY OF THE EPISTEMOLOGICAL CHARACTER OF SUSTAINABILITY IN THE FACE OF U THEORY

The data interpretation was given through the analysis method, seeking to response, a contribution to awareness and an improvement of the relation of capital, labor, and society, from the study and analysis of the discourses contained in the theoretical-conceptual review. Through the categorical analysis, interpretation technique that consists of the division of the text into categories summarized by qualitative data, it is possible to understand the epistemological aspects of sustainability, which are a constancy in the interdisciplinary learning for the development of competences and decisions, sustainable responsibility, as shown in Figure 3.

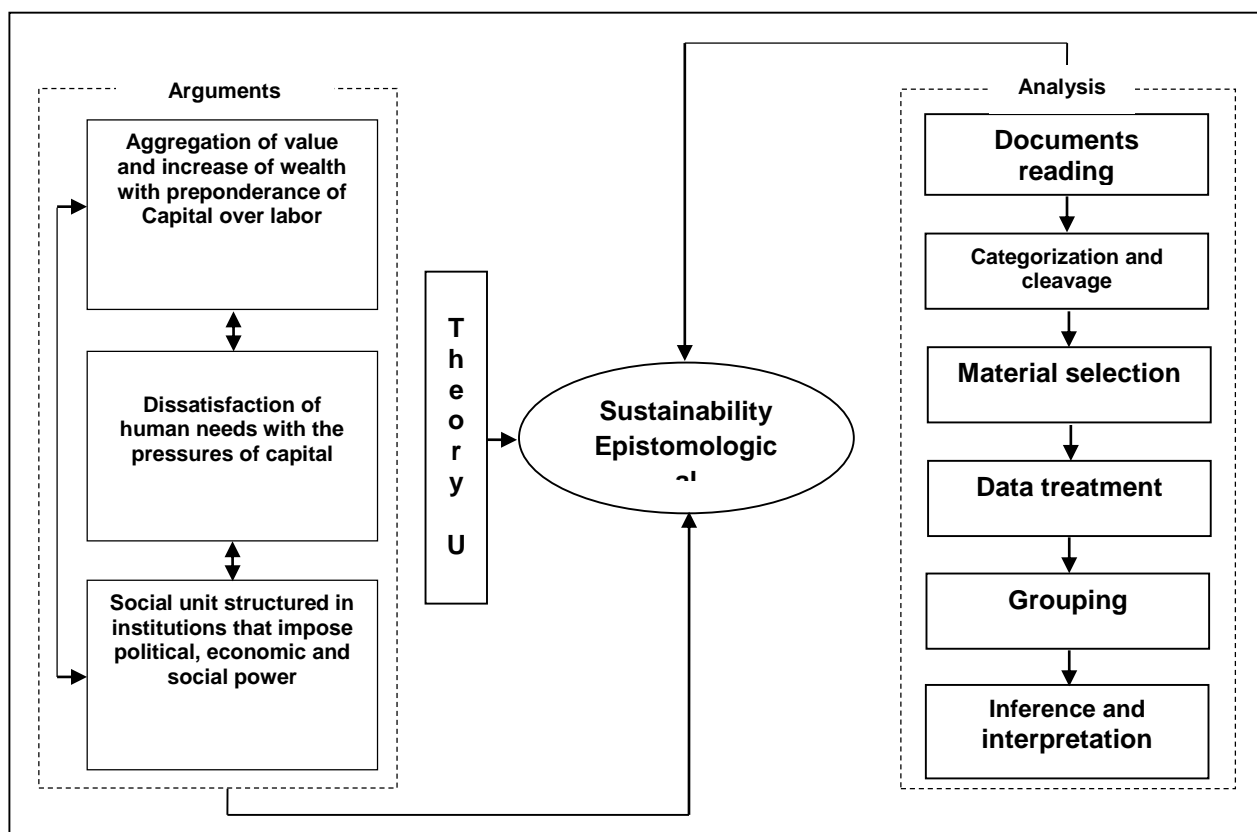


Figure 3: The epistemological character of sustainability in the face of Theory U.

Source: Prepared by the authors.

5.1 The survey of the theoretical-conceptual character of sustainability to explain its epistemological character

It explains the epistemological character of sustainability as a result of processes in organizations, which seek to minimize economic, social and environmental risks;

creating the opportunity to change in the organizational culture and quality of life for the people, through the dissemination of knowledge in a participatory and reflective way.

In fragile environments, such as in western Amazonia, there is a latent concern related to solid waste, deserving

emphasis from the conceptual point of view, where the origin of sustainability becomes the emergency that forces the behavior through recycling, destination of leftovers; so much so that Silva (2014) advocates the absence of residues. Reflection that returns a dialectical character between the generation of waste and the production of new goods with employment and income generation, in addition to the benefits that the task will bring in protecting nature.

5.2 Capital, labor and society relationship identification

Borges and Mourão (2013), Cassar (2013) and Brito (2013), identify in the development of the work the aggregation of value and generation of positive results, intervening in nature through a society structured in social institutions that promote changes in culture based on sustainable decision-making processes.

Cassar (2013) states that with the unity perception to reach common goals, arises the need for a work organization process; expanding human intervention on the environment and environmental impacts in a gradual and cumulative manner, culminating in the occupation of natural spaces

and destruction of areas, in an economic growth that affects humanity itself.

According to Philipi (2016), the mechanisms created by capital with domination over human labor make the worker passive in the society marked by capitalist hegemony. This implies that the holder of capital becomes the owner of the work and of the one who performs it, in a spurious vision of the relations that could be sustainable in themselves. In the view of the author, the historical reality is the maintenance of the "status quo" benefits only the capitalist, since the labor force is bought by the owner, who becomes its owner.

Institutions that integrate and impose political, economic and social power - constitutive factors of society - are capable of promoting sustainable development by investing in human interactions, changing the decaying socio-environmental structure to a powerful structure that promotes quality of life and sustainable results, consistent and perennial. Figure 4 refers to the relationship between capital, labor, and society, demonstrating the economics and sustainability feasibility.



Figure 4: Capital, labor, and society diagram

Source: Prepared by the authors.

5.3 Indication of the conceptual innovation required

Leading structural changes is an epistemological issue that happens in a pragmatic way, broadening the sensitive aspect of perception and consciousness; resulting in

innovations for sustainable development, providing learning where leaders promote changes in complex systems. In this context, the guiding concepts present a sustainable result, according to Figure 5.

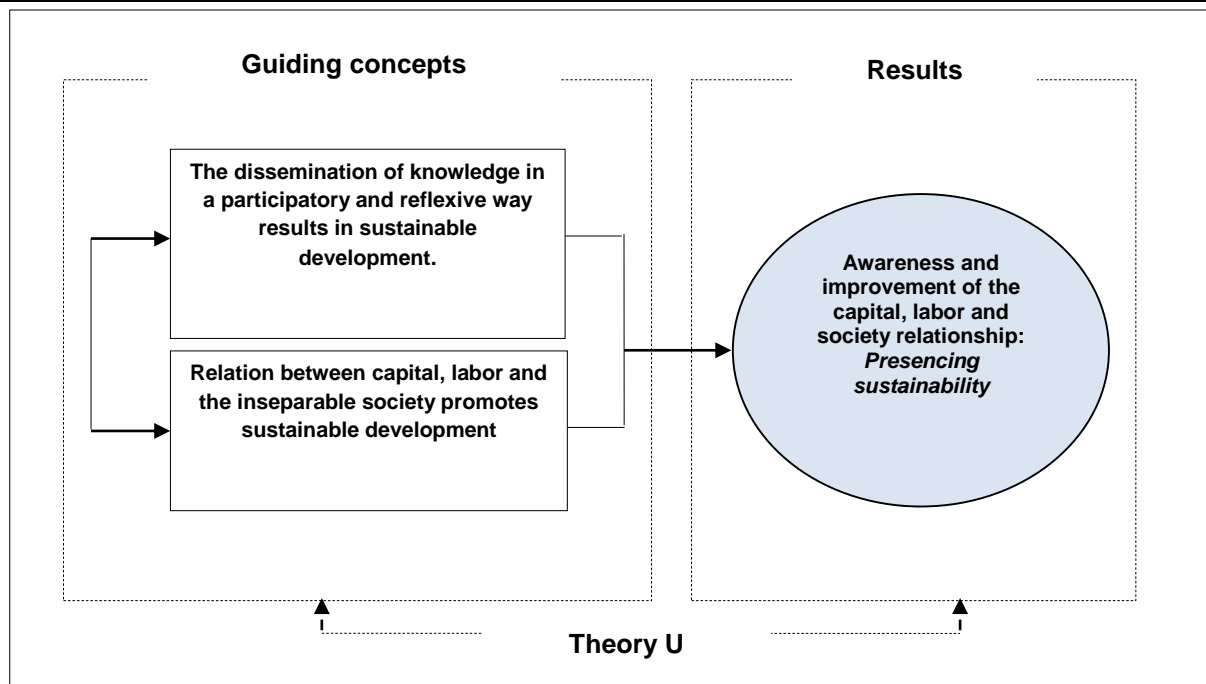


Figure 5: Analysis Process for Inference diagram.

Source: Prepared by the authors.

Presencing Sustainability results from a process of unlearning to change the minds of leaders capable of disseminating knowledge in a participatory and reflexive way, generating sustainable competence in the relation capital, labor and society.

VI. CONCLUSION

For the awareness and deconstruction of concepts that cause the reality of today's world in relation to sustainability, leadership is necessary to be able to connect with itself, depriving itself of paradigms aimed at gaining and increasing wealth with mechanisms of domination by predominance of capital. A leadership with the ability to influence, and generate new leaders with the same thoughts. Add to these open minds, specific actions and stages for new paradigms.

Rethinking the sustainability of ownership of the existing theoretical-conceptual framework is urgent for the emergence of effective actions that will contribute to the awareness and relation capital, labor, and social improvement, from *Presencing Sustainability*, using Theory U in all its stages, to achieve sustainable goals; resulting in implementation and effective change. These elements allow us to infer that joint action qualifies sustainable performance while guiding decision-making for improvement. This is the conceptual aspect that contributes to the awareness and improvement of the relation capital, labor and society.

The *Presencing Sustainability* limitations are focused on the human being, especially the leaders. They, with

genuine universal interest, will be able to change their minds and bring about changes in the environments in which they operate, fostering continuous and progressive learning. It is therefore recommended to measure results and continue the Theory U in a cyclical way, in order to become a personal goal in a constant learning process with aggregation perception of values that drive new learning. This work will serve as a contribution to the academy interested in economics and sustainability, to researchers and others involved in theoretical issues to delineate research in the axis of applied social sciences.

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