

Chapter 4

Theoretical framework: importance of training for the creation and adoption of a culture of Research Ethics, Bioethics and Scientific Integrity in Colombia Social Sciences, Humanities, Arts and Education

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Abstract

The objective of this conceptual theoretical framework is to understand how to move towards new educational, social, economic, political, cultural, artistic and sports models; the use of information and scientific approaches by and for intercultural communication, in order to recognize life from a new ontology focused on learning to look systemically and act in harmony with their care, within the framework of the importance of training for the generation and appropriation of the culture of Research Ethics, Bioethics and

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Scientific Integrity. To achieve this purpose, it is essential to address the biases that prevent progress in the challenge of protecting and enjoying existence in our common home. Thus, the increase and quality in the developments that must be worked on in science, technology and innovation increase capacities for being and staying in the territories. It was identified that intellectuals in these areas, in Latin America, propose to strengthen the love of life, as the force that continues beyond existence. They recognize prudence, humility and respect as principles for creating, innovating and producing knowledge, based on responsibility for life.

Keywords: Right to information, educational model, scientific approach, ontology, intercultural communication.

Resumen

El objetivo de este marco teórico conceptual es comprender cómo se puede avanzar para lograr nuevos modelos educativos, sociales, económicos, políticos, culturales, artísticos y deportivos; el uso de la información y los enfoques científicos por y para la comunicación intercultural, con el fin de reconocer la vida desde una nueva ontología centrada en el aprender a mirar sistémicamente y obrar en armonía con su cuidado, en el marco de la importancia de la formación para la generación y apropiación de la cultura de la Ética de la Investigación, Bioética e Integridad Científica. Para alcanzar el propósito, surge como imperativo atender los sesgos por ser condicionantes que impiden avanzar en el reto de proteger y disfrutar la existencia en la casa común. Así, el incremento y la calidad en los desarrollos que se deben trabajar en ciencia, tecnología e innovación aumentan capacidades para poder ser y estar en los territorios. Se identificó que los intelectuales de estas áreas, en América Latina, proponen trabajar en potenciar el amor a la vida, como la fuerza que continúa más allá de la existencia. Reconocen la prudencia, humildad y respeto como principios para crear, innovar y producir conocimiento, desde la responsabilidad con la vida.

Palabras clave: Derecho a la información, modelo educativo, enfoque científico, ontología, comunicación intercultural.

Resumo

O objetivo desta estrutura teórica conceitual é entender como avançar para alcançar novos modelos educacionais, sociais, econômicos, políticos, culturais, artísticos e esportivos; o uso de informações e abordagens científicas por e para a comunicação intercultural, a fim de reconhecer a vida a partir de uma nova ontologia centrada na aprendizagem de olhar sistemicamente e agir em harmonia com seus cuidados, dentro da estrutura da importância da formação para a geração e apropriação da cultura da ética da pesquisa, da bioética e da integridade científica. Para atingir este objetivo, é

imperativo enfrentar os preconceitos que impedem o progresso no desafio de proteger e desfrutar a existência em nossa casa comum. Assim, o aumento e a qualidade dos desenvolvimentos que devem ser trabalhados em ciência, tecnologia e inovação aumentam as capacidades para poder estar e estar nos territórios. Foi identificado que os intelectuais destas áreas na América Latina se propõem trabalhar para fortalecer o amor à vida, como a força que continua além da existência. Eles reconhecem a prudência, a humildade e o respeito como princípios para criar, inovar e produzir conhecimento, baseado na responsabilidade pela vida.

Palabras chave: Direito à informação, modelo educacional, abordagem científica, ontologia, comunicação transcultural.

4.1 Introduction

The conceptual theoretical development is performed in three movements that are constitutive and become a route to present the importance of training in the generation and appropriation of the culture of Research Ethics, Bioethics and Scientific Integrity (EIBIC) in Colombia:

- **Movement one:** This is a general framework that develops arguments to promote principles for action and to canalize the biases that obstruct the adequate development of science, technology and innovation.
- **Movement three:** It points out the main biases that influence action, i.e., the purposes, since they influence action in one way or another.
- **Movement three:** It addresses the action and defines orientations to impact the “technique of doing” and not to neglect any process.

These, when intertwined, synchronize to creatively generate new knowledge and attitudes that favor the systemic view for a new ontology of being. This dynamic confirms that the *raison d'être* of the humanities, social sciences, arts and education is the action of governing the scopes, challenges and issues in science, technology and innovation, since they establish common “elements” that communicate, transform and permanently re-signify life and its meaning in communities, societies and nations; in this way, the incidence of cognitive biases, attitudes and behaviors to develop with quality the CTel processes in these areas is recognized.

It arises the need for an education with conditions to discuss how to integrate the sciences and the arts for and to discover who we are in a society that has an unbridled

eagerness for egomaniacal self-improvement to the detriment of the recovery of the communitarian sense. Thus, training must strengthen the way of thinking about life, attitudes and behaviors for ethical acting, as a vocation with others in and for research (Gramsci, 2018). In this way, the mission of the institutions is established from the conscious obligatory nature to make efficient the policy of ethics in research, bioethics and scientific integrity, due to the fact that it is imperative to promote a holistic view, which facilitates the environments, resources, spaces and times to generate necessary attitudes and sufficient capacities (Sen, 1999), between perspectives of the totality of human knowledge and the use of knowledge to act in freedom in accordance, from respect as a principle, beyond doing science without incurring in the detriment of the general diversity of life.

It is proposed that life needs to be recovered as the axis of the dynamics of knowledge in order to know how to be and do. This implies strengthening the systemic view in order to recognize that we are part of the whole. This is the new challenge for the areas indicated by the OECD that seek to promote policies that improve economic and social well-being, which implicitly indicates that science is at the service of life, and not the sense of doing in order to have and accumulate in an overflowing way, from a consumerist logic. This should be the training for the understanding of life in its diversity towards the transcendence of the ethical being.

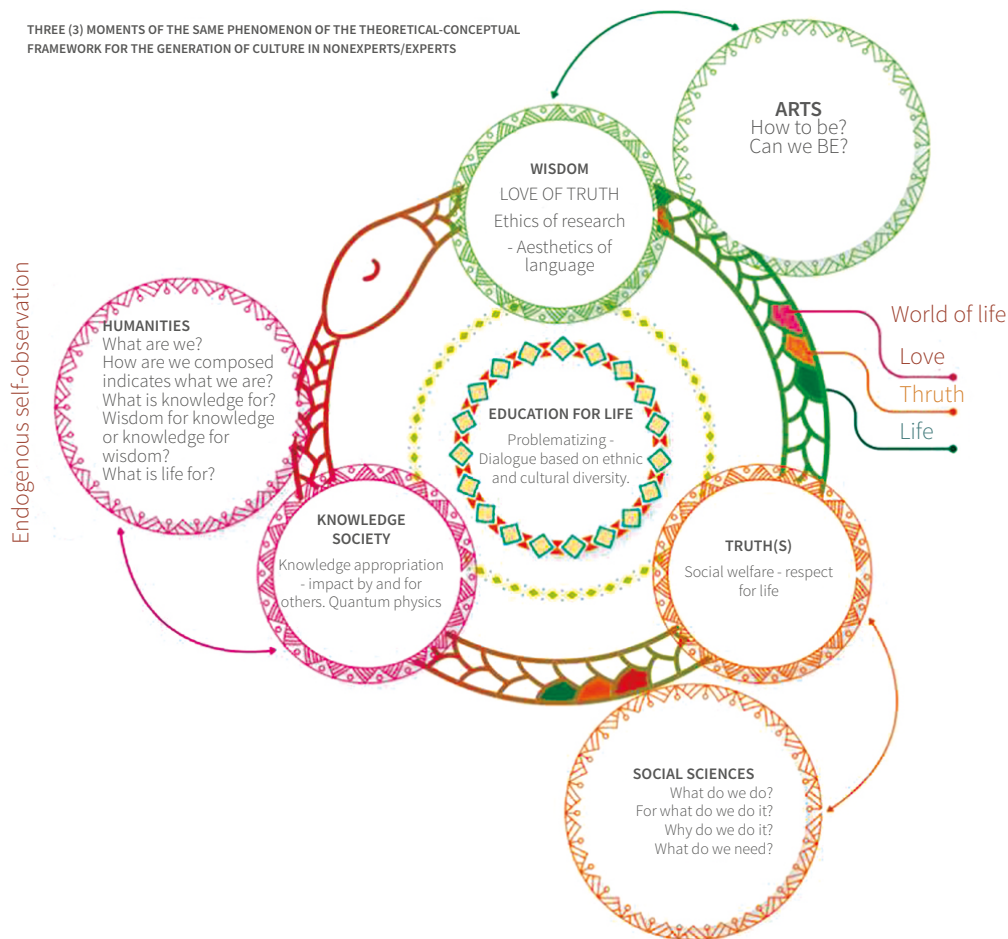
4.2 Importance of training for culture in Research Ethics, Bioethics and Scientific Integrity

Developing a new ontology of Being requires learning to act in the key to principles, it requires recognizing that the arts are the main element to enhance them, from the sensitivity and human capabilities, because these are necessary (Eisner, 2000) to know how to do science, technology and innovation from learning to live valuing life and its meaning.



The training should strengthen the way of thinking about life, attitudes and behaviors for ethical action.

Figure 10. Self's capabilities



Source: Katherine Rojas Montaña - Graphic Designer.

Figure 10 explains the questions that need to be addressed to enhance the capacities of the Being, in order to establish an ethics of research based on dignity as a principle.

Currently, the contexts of Colombia and the world in general are pointing out the need for a total revolution of consciousness that allows transiting from the strong influence of the hegemonic anthropocentric paradigm to give space for complementarity to new paradigms, such as, biocentrism (Toro Araneda, 2014), spiral thinking (Gavilán, 2012). This issue facilitates the transition towards a new ontology of being. For what is emerging globally and, particularly, not in America is the need to generate interepistemic dialogues, among knowledge and wisdom, from the perspectives of thinkers such as José Martí, Paulo Freire, Gros- foguel, Silvia Rivera Cusicanqui, Elvira Espejo Ayca, Aníbal Quijano,

Marco Raúl Mejía, Eduardo Restrepo, among others. These are substantial contributions to the understanding of experiencing and intending, from the common sense (Schütz, 2004), to reach the new ontology.

Therefore, it should be considered that the animal species, rational, interdependent (MacIntyre, 1999), with the passing of time, from its contexts and roles, create different routes to value and enjoy what life and being alive means. In the perspective of a bioethical mind, in its full sense, what is emerging is to learn how to strengthen a new ontology of being that allows us to transit and protect the new generations in order to take care of our *common home*.

This is how current researches converge in pointing out that this *new ontology* of being is imminent, since it allows, gradually, in science, technology and innovation, to learn to understand the new dynamic things between the categories *truth, love and life*, and when merged they affect the intentions of being, doing and having, which in their maximum developments demand that culturally issues ranging from “What are we?” to “What is life for?” are considered, built and linked. In key of respect and care for its majesty, beyond, of the scientific-technical advances that the species have created to recognize above the blinding for considering that science and its interests have priority over the care of life (Rodríguez González, 2016). This issue has repercussions for recognizing the importance of addressing the biases pointed out in these areas in the following section.

This approach in a bioethical key points out the need to recognize what we are as a species in order to enhance that strength, starting from acting with others. Indeed, it is the world of life and the scientific world that in hybridization (Rorty, 1991) can point out that fulfillment is achieved by putting in tension all the dimensions of being in order to obtain *eudaimonia* and achieve *enkrateia* and *ataraxia*... happiness understood as balance, peace and serenity. Therefore, the need for a state of being present so that consciousness can help to channel emotionality and, thus, enter into a true look of clean observation that allows us to remain united and acting as part of a whole; this essential look admits that the center is the care of life, where it is confirmed that it is from the body (Planella, 2006) how the manifestation of it is achieved. It is to assume all the dimensions of our Being in life as a principle (Toro Aranedá, 2014).

In other words, if all are connected, everything is interrelated; as quantum physics makes it understandable, everything somehow returns. It depends on what is emitted, as we move or see some things to the point of changing the physical frequency in “us” (Bohm & Peat, 2000). This is connected with the attitude, that is, how you position yourself in front of a reality, be it frustration, resentment, despair; this leads to decisions that generate entanglements, from the micro to the macro in personal and community life. It is important to remember that attack, blockage, flight, love, forgiveness, reconciliation allow a state of alertness that is activated as a great torrent of potentialities to learn to

live, to coexist and to help new generations to live in attitudes of service. In this sense, the perception of error allows us to focus, from a systemic point of view; to activate creativity and the capacity of analysis in connection with the emotional world and helps to act with firmness and discipline when it is required. Therefore, the best of a human being is only given in him as a person when he is able to choose freely, thus, to give himself self-recognition and part of this is obtained by feeling part of something that in his world deserves to be lived.

As a consequence, the cultivation of sentient intelligence (Zubiri, 1983) is essential to activate the capacity of *discussion-intuition* that we possess as a human species; this action is essential, in order to enhance the primary act of empathy; in this way, the capacity to conquer the transference of one's experiences to the other is increased and an action with *otherness* is achieved. In other words, *learning to think of others* is strengthened and developed when one thinks of how one is being in here and now in the role in which one finds oneself, be it parent, sibling, professional, layperson, etc. Thus, from the reflective act and acting, *intentionality* is active. And being in this condition awakens the conscience and motivates us to *act wisely*.

In bioethical perspective, what becomes visible is the constitutive relationship of epistemology with the view of what ethics implies, which is evident when, for example, a young person is required to *reconstruct an ethical conception based* on the act empowered by his human intelligence-sentient. This is because life is conceived from the knowledge of the world and the knowledge of oneself anchored in reality. This leads the young person to acquire a commitment to his environment, since he himself is reality and, therefore, is responsible for what happens. Hence, the importance of canalizing the biases of intuition, egocentrism and availability.

In this regard, Gómez Floro (2014) analyzes the *tendency* to a human life divided into bios life and zoé life; that is, a bare life would be that of the deprivation of identity, character and human being, which leads to a life *unworthy of being lived*, since it is exempted from belonging to any status, be it ontological, legal or even moral. Similarly, Pfeiffer (2009) argues that dignity, being a relational term, implies freedom and equality, and this is what makes it intersubjective. It is established and assumed that being inherent to life in community, it is a right, which is elevated to law when in ethical perspective it is based on respect for dignity. That is why, once dignity is established as a matter that emerges when making use of freedom and equality, it is understood that it is an end in itself, since the other is present as recognized and acknowledged: as a being that respects and respects itself, and even manages to recognize it beyond its own individual existence.

Therefore, it is important to educate with and in a *bioethical perspective*. To achieve this, according to León Correa (2008), it is necessary to meet three objectives which, in turn, become challenges for educators and adults in general: to provide knowledge

from an interdisciplinary viewpoint on an increasingly broad and complex field of topics, to modify attitudes and behaviors, and to influence the professional relationship. For example, health professionals: health-patient, this requires adjustments and wise changes in health care models; transmitting the most appropriate and necessary ethical values for these professionals and for society in general because they interact with it.

As a result of this requirement, both the methodology in the educational act and the attitude and evaluation are vital for the management of biases and for being conditioning factors to create knowledge, qualities and values; this requires educating from a broad and interdisciplinary bioethical viewpoint to achieve a new epistemological status, where global and environmental ethics issues can be included; to consider the problems of ethics of institutions and health systems in a pluralistic and complex world (Solomon, 2007, p.45; Belinguer, 2002). In this regard, the most important challenge of an educator-mediator is to reach the innermost part of the moral training of young people and help them to incorporate, improve or prioritize in a better way the ethical values and those that they will acquire throughout their career, moving from a duty to do to a desire to do.

How to meet the educational needs of young people? From the training of an ethics of emotions, in order to enhance their *moral development* and, therefore, their *ability to do justice* in their actions; it is necessary that young people learn to recognize that “we live in and through our emotions” (Solomon, 2007, p. 45), they are “constituted based on judgments, ways of perceiving, conceiving and evaluating” the world (Solomon, 2007, p. 45). In this purpose, it is necessary to cultivate the faculty of prudence, and, therefore, to assume it as a principle, because it enhances the capabilities and the will in front of what is decided and required, as, for example, in order not to do with knowledge actions that deteriorate the future of others. It is a moral-ethical attitude of the citizen that everyone can self-enable as a characteristic to act harmoniously in community, a consubstantial issue that is related to and affects the biases and what they raise when doing science, technology and innovation.

All this indicates an authentic and current approach to the Aristotelian idea that invites us to recognize as possible a citizenship where the public is revalued as everyone’s business, because we can learn to live assuming life in society as a community of friends engaged in a collective project that avoids injustice and seeks happiness, the good for the community. In this regard, Habermas (1999) states that “ethical questions cannot be judged, from the moral point of view of whether something is good, equally for all” (p.23); the impartial judgment of these questions is adjusted, rather, on the basis of strong valuations, self-understanding and perspectival life project; taking into account the totality, “is good for us” (p.23). Moreover, it is an essential issue for the training of the citizens of the street: a role that everyone must fulfill, a determining factor in the ethical-moral aspect to work for sustainable social progress in favor of life and the planet.

It must be recognized that, at present, the vision of science, technique (technology) and society is due to certain defects and adherences that disfigure the panorama; this leads to biased interpretations; therefore, it is the praxis of power and the place of reason that prevents us from easily understanding what is being done, making it difficult to act according to what is “naively” thought. What has been generated is a partial thinking of the events that circumscribe the life of the human being on earth. Now it is understood that it is not possible to respond in a single (simple) and exclusively disciplinary way; interdisciplinarity is required. In this regard, Ospina-Ramírez and Ospina-Alvarado (2017) establish criteria for possible futures, where it is essential to favor the creative potential of children as the foundation for the construction of peace, an aspect that favors their capacities to do science, technology and innovation.

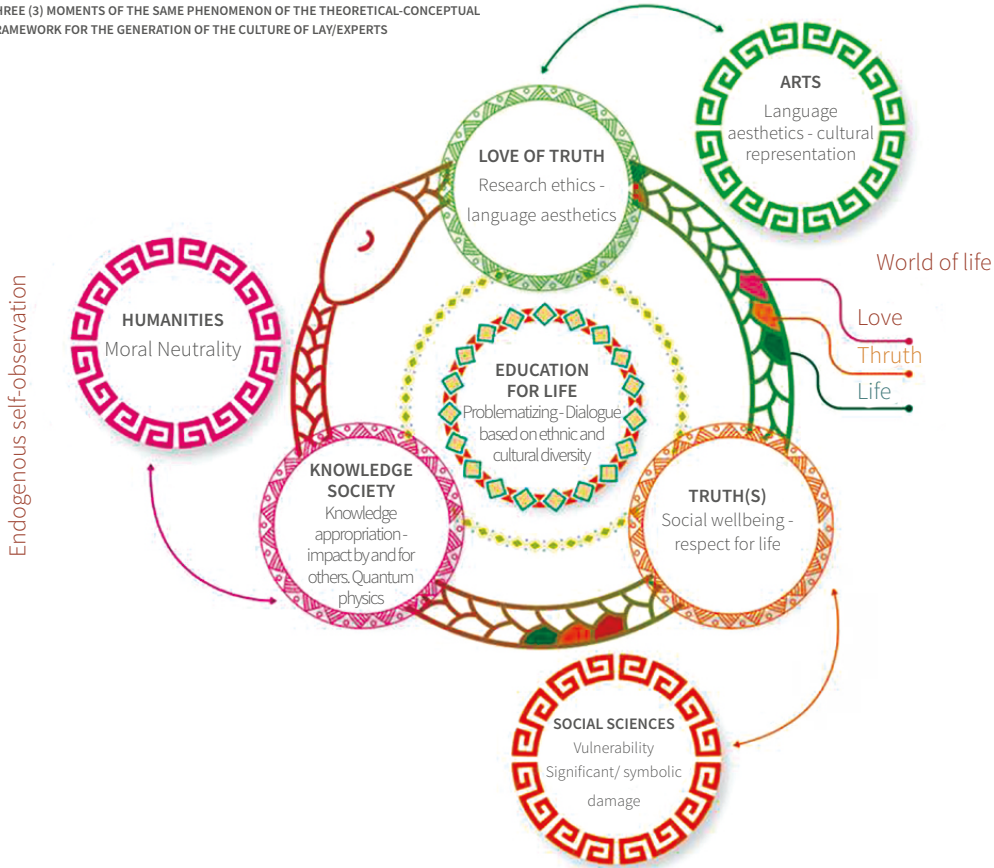
Therefore, interdisciplinary cooperation is important and allows recognizing that managing these processes requires unprecedented creativity (Ríos Alvarado et al., 2009) in all fields of social life, which requires finding ways to support young people in the development of a strengthened identity based on self-knowledge. This, in order to meet the need to build a cultural and material autonomy that allows to protect the collective from various structural risks, but without stopping the change. Now, the recognition of principles to act is influenced by the dispositions that are cultivated to decide how to act before what is needed in the contexts and generate conditioning factors; therefore, understanding the biases to eradicate them is part of the development that is presented in movement two.

4.2.1 Cognitive biases, attitudes and behaviors in Science, Technology and Innovation.

Research Ethics, Bioethics and Scientific Integrity (EIBIC) in social sciences, humanities and arts (Belén, 2019) is based on the principles of truthfulness, justice and welfare; on its ethical commitment to social welfare; on the irreducible respect for life; on the recognition and appropriation of diverse knowledge and wisdom, and on the strict moral integrity in each of its processes.

Figure 11. Training in respect for life in science, technology and innovation

THREE (3) MOMENTS OF THE SAME PHENOMENON OF THE THEORETICAL-CONCEPTUAL
FRAMEWORK FOR THE GENERATION OF THE CULTURE OF LAY/EXPERTS



Source: Katherine Rojas Montaña - Graphic Designer.

In this graph, the social sciences, humanities, arts and education, fields of knowledge that share perspectives, methodologies and research techniques, but above all, interests and concerns for the human condition and the ecosystem of which they are part, must strongly insist on the need to rethink the training in Research Ethics, Bioethics and Scientific Integrity in their curricula, as an unpostponable purpose within the educational and research commitment towards inclusion, the common good, respect for diversity, divergent thinking and the search for social justice in a systemic view, as its epistemological and axiological disciplinary principle and foundation.

According to the above, it is necessary to propose roadmaps in the face of the bad practices that emerge in research activity. More discussion and decision-making processes

are required in the EIBIC methods to identify and act on the possible biases that are characteristic of these areas and their incidence both in the research results and in their collateral effects in the communities, especially in those with differential characteristics and contexts crossed by special situations for the people involved. Therefore, urgent progress is needed in the analysis of the discussion on the impact of social research practices, since in the last decade it has become evident the enormous responsibility that qualitative social research (QSR) represents for life, privacy and rights: the sensitive balance of communities and people (Hall, 2013; Maraví Mesía, 2007).

In view of the above, the most notorious biases in these areas and that require permanent work in the curricula to support intersubjective social research (ISI) are the biases of intuition, which reveal the integrity of the researcher; the biases of egocentrism, which undermine the appropriateness in the research processes; and the biases of availability, which intervene in the quality of accessibility in the contexts of the research.

4.2.2 Intuition biases

The following are related to intuition biases:

- **Prejudice:** Condition, perception, characteristic or malpractice that affects the optimal development or distorts the research by becoming in a trend or inclination that influences the way of perceiving a phenomenon. It is a predisposition to judge from previous assessments or to interpret from stereotypes (Hall, 2013).
- **Conditioning:** Towards the “reproduction of system positions” (Bachelard, 2000; Bourdieu and Passeron, 1996).
- **Tendency to perpetuate:** The current situations of the system in correspondence with the creation of symbolic capitals and pre-established hegemonic fields of power that determine the possibilities, which limit the knowledge and importance of the impact of the research results and the recognition of those who are in them.
- **Lack of autonomy:** It is understood as a restriction of personal decision and creativity in the resolution of emerging problems and in decisions on contingent situations to be adopted in the field.
- **Intellectual narcissism:** Understood as non-respectful intervention or tendency to disqualify other colleagues or research participants (Bachelard, 2000), this prevents the fair interpretation of all participants in a research (Bourdieu, 2003). Likewise, there is the difficulty of generating otherness/reflexivity/empathy/mirroring as

fundamental elements of the encounter and recognition of others in the sense of “care” (Heidegger, 2009). Additionally, the lack of commitment understood as failures in the strict fulfillment of responsibilities of all the members of the research team and of the collaborative sense of “caring” (Heidegger, 2009).

4.2.3 Self-centeredness biases

Regarding the egocentric biases that affect the suitability of researchers, managers and seed science research, the following are the most important ones:

Epistemological obstacles: The tendency to maintain atavistic learning, neglecting the “learning to unlearn” (Bachelard, 2000). Furthermore, the lack of updating in the training with respect to the epistemological/philosophical foundations of the permanent changes and adjustments of contemporary qualitative approaches and methods, which evidences the lack of knowledge of the “epistemic shift” (Bachelard, 2000).¹⁴ Likewise, the instrumentalization of the methodologies by which the techniques for obtaining information are reduced to positivist, determinist and generalist thinking, giving priority to measurable phenomena, to quantifiable data, and leaving aside interpretations to the point of loss and distortion of the construction of meaning.¹⁵ Thus, the conservative instinct is represented in the remarkable subtlety of looking for what confirms the assumptions of a given knowledge. Together with this, the limitation to think new epistemic perspectives that allow dialogue with other paradigms of thought, such as “Spiral” thinking (Gavilán, 2012) and not only in linear terms. Consequently, emphasis is given to the search for precision, for rigor understood as accuracy, and not as ethical and interpretative fidelity of the sources, which is what should be proper of scientific veracity in research.

¹⁴ The Social Sciences need to be at the forefront in this aspect, since this prevents us from knowing new paradigms and epistemes that are in force in our America and that favor the integration of knowledge, expertise and practices for the construction of diversity and pluralism in the face of the realities of the country.

¹⁵ In this sense, managers, researchers and seed science research need to address the gap due to lack of knowledge in their training and willingness for permanent updating, together with the absence of timely praxis in training processes, in order to transcend the disarticulation between theory and practice that leads to reduced and univocal interpretations. This points out the need to advance in the educational logics on the historical incidence of the hegemonic position that the basic sciences have had, with respect to the other areas of knowledge that lead science to a production centered on measurement and competitiveness among researchers, over the use and application in contexts of the findings achieved.

4.2.4 Availability bias

Among the availability biases that have an impact on the contexts are the following: institutional pressure characterized by insufficient time and resource assignment processes without considering the particular realities of each research project, researcher and field of action¹⁶, and thus the social projection and impacts of these processes are neglected. Additionally, the particular interests in certain results generate a lack of transparency of the founding principles of CSI, such as the search for the common good, social responsibility, equity, recognition of the other and the other, the attitude of dialogue, respect for the diversity of ways of being and being in the world. Principles that are under tension due to the exercises of power in the hegemonic paradigms that ignore the thinking of those who are considered subaltern. This happens due to the ignorance of the particular historical and socio-political-cultural conditions of each context, of the uniqueness of territories and identities, and the tendency to create standardized models and homogenize territories-identities.

This causes the indiscriminate use of informed consent and requires prior knowledge for optimal adequacy, planning and management. It is important to clarify that we try to have criteria to know at what moment the omission of informed consent predominates due to the sociopolitical difficulties of each research, the context and the participants to safeguard their integrity and achieve the adequate application of this instrument.

Therefore, the biases are conditioning factors that affect the methodological application, mainly its data collection techniques, among other aspects, have been the subject of extensive discussions when questioning the impact they have on the privacy of individuals and the preservation of their integrity due to the instrumental nature of their exercise, as they do not take into account the epistemological and ethical frameworks that precede them. Above all, because of their indiscriminate application to populations and subjects in a state of vulnerability, in situations of economic fragility, exposed to structural or bond violence or in different cultural conditions that make them susceptible to possible related damages. An inadequate application of these practices produces negative impacts on individuals, their domestic group or the community in general (Martínez and Castillo, 2019), which is conducive to an increase in their state of vulnerability in said population, “as, for example, in social studies conducted with ethnic minorities, victims of violence and refugees” (Santi, 2015, p.55)

¹⁶ In Colombia, the territories demand precise displacements and protocols, located according to geographic and cultural characteristics, in order to reach adequate approaches with the communities that will participate in each research. This must be considered at all times, both in the design, implementation and closing phases of the project work and in the processes of socialization and appropriation of the results, return of the word, in the research, and must be covered in an efficient, timely, pertinent and sufficient manner by means of the assigned budgets.

Currently, the range of what is considered bias, harm, violation or harmful effect has been broadened; but, also from another angle, current discussions point to the analysis and visibility of the effects of prolonged fieldwork on the researcher's mental, emotional and physical health. Therefore, it is essential to understand that the permanent and imminent confrontation with ethical problems demands immediate responses, where both scientific rigor and moral cleanliness are put in tension, which is owed to the research participants in a kind of greater demand that constitutes a permanent personal challenge. Méich (2010) states in this regard that

Ethics [...] is not born of a question, but of a radical anthropological situation in which an interpellation opens up, a demand, a strange, unforeseeable, unprogrammable, implantable demand. Ethics arises in a situation in which a demand-event breaks all foresight, and all calculation is born in a situation in which an appeal (from something or someone) demands an urgent response, without mitigation, a response that cannot be established beforehand, a response that cannot be found in any code, in any legal, juridical or moral framework. Ethics disfigures and dislocates every normative framework, calls it into question. It breaks it. (Méich, 2010, p.317)

Certainly, biases in ISI must consider a wide range of biases, from the subjective pre-dispositions of the researchers to the institutional characteristics from where research is designed and the particularities of the communities and contexts where it is developed. Thus, the epistemological turns made in these fields of knowledge at the end of the 20th century allowed for the revitalization of critical thinking and interepistemic dialogue arising from intellectuality and original thinking in Latin America, among other factors. Furthermore, the need for an openness to debate on the articulation of other paradigms of knowledge, expertise and philosophical frameworks through not only interdisciplinary but also intercultural dialogues, with the purpose of eliminating biases in the interpretation of sociocultural phenomena, due to the effects that a radical hegemonic position of knowledge may produce.

Therefore, it is urgent to broaden the perspectives on the concepts and categories that have framed classical ethics in intersubjective research, from the demands of the same communities and people, from their particular contexts and dynamics, such as their symbolic structures, cosmogonies and valuations related to cultural matrices and differential axiological frameworks: ancestral or traditional thinking, native thinking (Gavilán, 2012), popular cultures (García Canclini, 2005), cultural configurations (Grimson, 2013), emerging youth identities (Reguillo, 2017), own thinking (Restrepo, 2015), among many others. This broad spectrum deserves a change of representation towards interlocution, interpellation, interpretation and horizontal and interepistemic dialogue, as a constitutive of an ethical horizon and bioethical requirement in the 21st century.

In this regard, Santi (2016) proposes three hypotheses with which he emphasizes the special characteristics of the contexts of qualitative social research, from which these new approaches that are not always sufficiently addressed in traditional social research ethics are derived:

- Ethical issues that arise in the context of social science research have particular and specific characteristics compared to other ethical issues in human research.
- Social research involving individuals and groups in vulnerable situations raises ethical issues of greater magnitude than research that does not involve these individuals and groups and has the potential to cause significant harm to these participants.
- A great part of current concepts of vulnerability are inadequate for application to the field of social science research ethics (Santi, 2016, p. 18)

It should be noted that the ethics of research in the social sciences, humanities and arts share from a general framework the ethical approaches of biomedical research, prioritizing the welfare of the participants in such research practices. However, regarding the considerations and regulatory frameworks for specific ethical problems, it is clear that in each of the countries they are divergent (Santi and Righetti, 2007). The ethical dilemmas and problems throughout the development of each research require to be approached from a situated and shared perspective by those persons, communities, groups, collectives concerned in each research practice, in order to rework the basic concepts that have been used in a generalized way and that imply risk, collateral damage, violation, confidentiality, which weakens the principles of justice, beneficence and truthfulness, proper of their deontology.

It is necessary to understand the impact of biases, from vulnerability, susceptibility, fragility or low resilience to imminent risks or attacks and the impossibility of defense and replication. Therefore, more recent approaches emphasize “the structural dimensions of socio-demographic and environmental vulnerability as a product of a social construction generated from social inequalities, lack of opportunities, empowerment and access to social protection” (Sánchez-González and Egea-Jiménez, 2011, p.5). Moreover, at the end of the 20th century, the notion of vulnerability acquired new dimensions adjusted to the consideration of sociocultural situations that are now made visible, because they lead the human condition to dehumanizing situations and intense suffering, caused by external conditions that, if left unattended, affect the delicate warp of the socio-cultural fabric and the uniqueness of people.

Likewise, the theoretical and methodological progress of research has allowed the resignification of the concept of vulnerability to the extent that new approaches and demands promote intercultural dialogue, so that there is increasingly greater depth in comparative studies on identity/subjectivity, studies that point to the need to offer greater openness to intercultural research from principles such as “dialogue, reciprocity, complementarity, parity, respect, equality” (Gavilán, 2012, p.23), which makes possible greater dialogic processes of reflexivity and empathy where “epistemology thus becomes an ethic” (Rivera Cusicanqui, 2018, p.8).

Particularly in Latin America, these advances have started from different aspects, thanks to which they have made possible transformative processes of their practices, understood as collective construction of knowledge and wisdom through the weaving of their own divergences and polyphonies of their diverse idiosyncrasies (Espejo and Arnold, 2019), in an action aimed at avoiding biases, risks and damages related to research practice and which are added to the conditions of historical structural vulnerability of inequity, exclusion and conflict (Sánchez-González and Egea-Jiménez, 2011).

Therefore, the most important principle of research is the irreducible purpose of not producing harm or putting people at risk. It is clear that social research presents meanings that go far beyond its conventional meaning referred to the economic and physical dimensions, and presents intangible or immaterial dimensions, but no less devastating for that reason:

Damage is a fact: it is any offense against the integrity of a person, an activity or a situation [...]. The damage is constituted by the set of elements that appear as the various consequences that derive from the damage for the victim thereof [*sic*]. While damage is a fact that is established, harm is, on the contrary, a subjective notion appreciated in relation to [*sic*] a specific person. (Henao, 1998, p. 76)

Consequently, Koteich Kathib (2013) warns that the delicate valuation of a type of existential damage does not allow the application of objective criteria, given that the damage to the psychophysical integrity produces alterations in the daily agenda of the victim and produces effects on the individual and family existence of the person concerned referred by it, as a dynamic component.

In this perspective, the moral damage derived from the affectation of a situation and the alteration, serious or not, of the conditions of existence or life project is highlighted, as determined by the Inter-American Court of Human Rights, taking into account that the Colombian Council of State has placed this type of damage within the category of “immaterial damages assimilated to the concept of damage to life” (Judgment 2007 of 2007 Colombia, 2007).

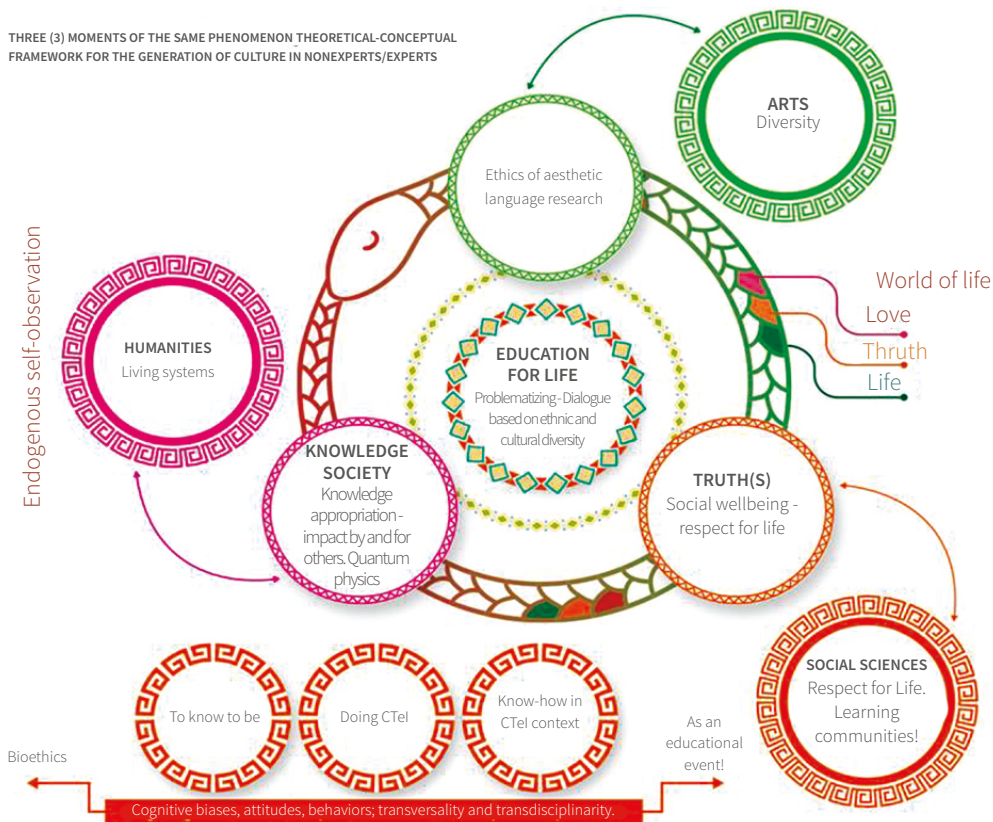
Finally, the damage to the life project emerges as a new dimension of immaterial damage, which is necessary to measure from notions such as otherness and empathy, from a renewed phenomenology/hermeneutics (Heidegger, 2009), as a way of approaching the human singularity immersed in a systemic whole: the being-in-the-world, from its own place of enunciation and in constant synergy with other epistemes and sensitivities. Then, in these areas the incidence of education around the overcoming of biases, damages, violations or harmful effects, requires processes such as those indicated in movement three.

4.3 Training for the appropriation of a culture of Research Ethics, Bioethics and Scientific Integrity

The new paradigm of education integrates the context as the place of statement that derives from a project with arguments that address why, what for, how and where research is conducted. It is pertinent to propose to students, teachers and research managers to discover the possibilities offered by art according to each research need, since the epistemological and methodological value of formative research is the autonomy activated by practices related to the cultural artistic (Lucas, 2022). Art creates realities that impact ways of living.

This graph can address diversity as the greatest achievement of the species and respect for life is shown. Knowledge must always be in favor of it. Therefore, it is necessary to learn to be and let be for a more harmonious way of doing. Research in social sciences, humanities, arts and education should produce valuable knowledge to guide training in Research Ethics, Bioethics and Scientific Integrity. The processes that are achieved from pedagogy, through questioning and dialogue, allow interventions of individuals and human groups by and for the creation of alternatives to ethical problems that are present in research. This demands learning to recognize the specificities regarding the characterization of communities and individuals in order to preserve the common good through the selection of actions that protect from possible damages; thus, human dignity is safeguarded.

Figure 12. Education for life



Source: Katherine Rojas Montaña - Graphic Designer.

For this reason, reflection, discovering who we are, allows personal improvement, the elimination of behaviors, such as those grouped in the above-mentioned biases. Indeed, it is a defense of self-knowledge towards a sense of community, from a holistic view based on respect for attitudes and skills necessary and sufficient for coexistence. In these areas, pedagogy as a science interacts to give and motivate to value as an active learning process. They converge, therefore, respect for others, for oneself; this requires considering the plurality of knowledge that each subject possesses. Its central objective is to emphasize the participatory work that allows evidencing the Being in order to know how to do it. In this regard, Freire refers that “to exist humanly is to pronounce the world, it is to transform it. Men are not made in silence, but in words, in work, in action and in discussion” (1972, p.104). It is important to establish the need to consider the other, to address the area of social sciences, humanities, arts and education. This situation

requires creating activities to learn to eradicate the biases of egocentrism, intuition and availability. It is important to remember that

the Other asks me to open up to his otherness, to the recognition that I am in need of something. The Other makes it possible to address his need since I by myself, for myself, cannot do good, since goodness is a matter, at least, of two. The Other requires me to put myself in tune with my responsibility, that is, in the very harmony of what is human. (Levinas, 1982, p.91)

Therefore, education has as a principle the recognition of the other, in order to consolidate scientific integrity. For these areas “the ethics of care and compassion for the earth (...) reconsiders the western view of anthropocentrism as the core of all relationships and postulates a biocentrism, from our conditions of mega diversity, which means a new ethos” (Boff, 1998, p.25). In this sense, the ethics of care must be the transversal axis of all research to respect life and the strengthening of educational action in a community; thus, pedagogy in formative processes requires focusing on analyzing the needs that populations are expressing: that is, university practices, being investigative, need to have concrete approaches to communities.

In this regard, Bauman (2015, p. 33) expresses that “the challenges of education are very strong, since we must compete with a liquid modernity. The impact of novelty wears off quickly (...) learning is condemned to be an endless search for ever elusive objects”. In this order of ideas, in the educational field and when doing CTel, the needs of the context must be considered, and reality must be read in order to identify the continuous social, economic and political change of a society. It is important to consider that

the role of education must be an education that echoes our history, artistic and cultural values, practices such as minga, bartering, traditional indigenous medicine, knowledge about nature, the practical situations we live in today and from there enrich our survival as a people. (Consejo Regional Indígena del Cauca [CRIC], 2012)

In this way, know-how is acquired in practice and requires knowing how to Be in order to know how to find the theoretical components, to recognize the biases that arise in the research process with the pretension of scientific language, because in social relations they are present and often do not allow learning from and to favor the educators themselves. Mejía (2011) points out how “pedagogy needs to be understood as the discussion on the educational fact and on the universe of relationships that are built to guarantee the teaching and learning processes” (p.38). As such, it needs to be sufficiently developed in these areas. In other words, pedagogy is the guarantor of social impact and should not be limited to the praxis method. It is necessary to stop isolating the school by reducing pedagogy to processes “of instruction and teaching and, to the relationships that are established within the framework of school institutionality as

part of the control project” (Mejía, 2011, p.47). It should be noted that the essence of pedagogy lies in human relations, since it is from different perspectives that one’s own knowledge is constructed, and that is why it is necessary to revitalize and recognize cultural tradition in order to replant knowledge based on the epistemes of practice. Moreover, UNESCO highlights the relevance of “the wide dissemination of culture and the education of humanity for justice, freedom and peace are indispensable to the dignity of man and constitute a sacred duty for all nations” (2010, p.279).

Likewise, in these processes of doing for Being and knowing how to do, the strength of learning to ask questions needs to be strengthened. According to Hernández and Guárate (2017, p.62), “questioning is a method and a technique” that generates an impact on motivational activities to initiate a training process in Research Ethics, Bioethics and Scientific Integrity. Similarly, the circular discussion and case studies guide the reading of previously selected texts, according to the subject matter presented. In this sense, the teacher should stimulate the students with positive aspects in the development of learning, especially from the study of ethical dilemmas. The method used will be expository-dialogical and theoretical-empirical. The teacher will introduce the basic concepts through abundant exemplification from first-hand data collected in different sources. The presentation will be in dialogical form, so that the students will have to actively intervene with respect to the topics developed in class; likewise, the readings prior to the classes (referring to the basic text) will stimulate discussion (Cabrera Díaz and Rodríguez González, 2020).

For example, each class will contain three moments: theoretical and methodological exposition of the day’s topic, discussion of one or several research papers on research ethics, and orientation of students around eventual or in-process research on the issues studied. In this sense, it is suggested that participants consider possible research topics in general prior to the class, and keep in mind the ethical, bioethical or scientific integrity perspective, knowing that the depth for discussion is often given by the school level or the achievement of joint projects by cycles. The more time shared between different perspectives, the greater the elimination of biases. For each topic, complementary readings related to specific published research are suggested, such as film forums, panel discussions on biases in series and film cases, scientific articles, papers or conferences in specialized events. The reading of these works fulfills a double function: to inform about the development of ethics in research in social sciences, humanities, arts and education, and, at the same time, to show a methodological perspective on the approach and resolution of research.

Cooperative work is essential for these training processes in EIB, due to the fact that the micro circumstances demand personal and collective attention to the biases that are possessed and manifested in those who interact. For this, the revision and adjustment of the ludic activities must be related to research lines, besides

being articulated to research ethics; its main objective will be, through cooperative work, to allow the evaluation and self-evaluation of the techniques used in the activities, which the participants must recognize in the short and medium term as part of a project or as a project in itself. Thus, this pedagogical action, besides being reflective, gives “shape to the ways in which society is conceived, the world is organized, and the future of humanity is proposed.” (Mejía, 2001, p.6)

It is important to guarantee an in-context education in order to increase its meaning, since “education, being practical, builds educational social relations with its devices and methods” (Mejía, 2001, p.7). Now, power and knowledge bring into play investigative actions so that the social options take shape in the life of those who are participating in the educational act, in order to give strength to what the institution proposes through the curriculum. In this way, the forms of interaction in training start from the research processes that require to be and make visible the communication through the results, or the comprehensions achieved according to the educational exercise developed. Therefore, “pedagogy as a communicative process (in the Habermasian sense) is necessary for the appropriation and development of academic culture” (Mejía, 2001, p.7).

Similarly, in order to promote EIBIC, it is necessary to consider the cultural dynamics of Colombia and to organize didactics and methodologies to learn to develop a systemic perspective, based on five issues:

- *praxis*,
- diversity,
- dialogue and question,
- life,
- love.

Praxis: It is related to the production of knowledge as a strategy in the methodological design and, in turn, in the need to dimension the research from the questions, guidelines, instructions, different stimuli (verbal or visual) that are part of any recording instrument, as well as in the importance of the theoretical referents that are identified in the concepts-variables or as theoretical dimensions that are the referent for the validity and reliability of the research instrument (Cohen and Gómez Rojas, 2019).

Diversity: In the use of new paradigms and qualitative and quantitative methods, leading to the relationship of criteria for thinking and acting in science without reducing or simplifying the importance of accepting the combination of methods to integrate and enhance the social sciences.

Dialogue: As a central axis of knowing how to be and knowing how to do science, technology and innovation from listening, respect and correlations in the ethical actions of those who research and actively participate in research.

Life: It is established in the attitude of assuming the decisions in research ethics from the complexity of the research problem.

Love: Relates the willingness to do good without causing harm to the participants.

Finally, it is important not to neglect and strengthen the processes of accompaniment required by the students, participating in the research processes in an active and sequential manner when they have previously completed and rigorously assumed the ethical foundations and scientific integrity of the research activities.

Conclusions

This academic exercise recognizes the importance of building dynamic theoretical frameworks from the different Colombian territories for the areas of social sciences, humanities, arts and education, where directors, managers, teachers and researchers dedicated to educate to do research, innovation and science assume, from a conscious commitment, the challenge for the country to direct its learning results by creating pedagogical, communicative and investigative strategies that promote and speed up the commitment to Research Ethics, Bioethics and Scientific Integrity, through attitudes of permanent improvement in the different school levels. Thus, the expertise is deepened and becomes a reality in the regions with the necessary actions to generate the appropriation of the culture, from the good practices of the Research Ethics, Bioethics and Scientific Integrity policy developed in favor of the care of life at the level of the State, academia, business and society in general.

In this sense, it is imperative to strengthen educational models, from the organizational culture in educational institutions, where, among other principles and actions, are the recognition of what we are as a species, respect, solidarity, social justice, reciprocity, systemic view and dialogue, in order to conquer synergies for a true transdisciplinary work that interacts with those who do not think like “us”, especially at the time of doing science, technology and innovation. That is to say, it is pertinent to consider cultural knowledge from complementarity, parity and reciprocity to assume dissent, starting from collective work in an ethical and bioethical perspective for and to develop research always considering the other and the other, and, above all, the majesty of life. All of the above, recognizing more and more precisely the incidence of biases and, therefore, the need to address them in order to channel them to favor actions in EIBIC.

Therefore, it is necessary to strengthen the training of professionals with vocation, from their dynamics and ways of projecting themselves in the communities, through their roles and professional profiles, in order to mobilize a new ontology of being, where principles, processes and procedures contribute to enrich the humanistic theme and, thus, meet the need to train, always in a systemic perspective. Moreover, with the purpose of moving with an aesthetic, creative and loving look towards the understanding of research practices, placing life as the most precious value, as promoted by the native peoples and, thus, directing the scientific approaches to establish respect for all living systems by modifying the methodologies of the sciences, so that they are visibly interconnected with the training processes of the human species, overcoming the ideologization of science, so that new reference systems are generated over the current regulations and the right to information and intercultural communication is enhanced. Therefore, how does learning in and for life allow the overcoming of biases for the realization of the Self in its completeness?

Ethical and bioethical imperatives:

It is an honor to belong to life. To understand ourselves as its creative extension. It is an honor to discover the life of so many of our own in ourselves. It is an honor to be an element of change, of advancing our own system. It is an honor to exercise the choice to love. (Firace, 2018, p. 5)

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