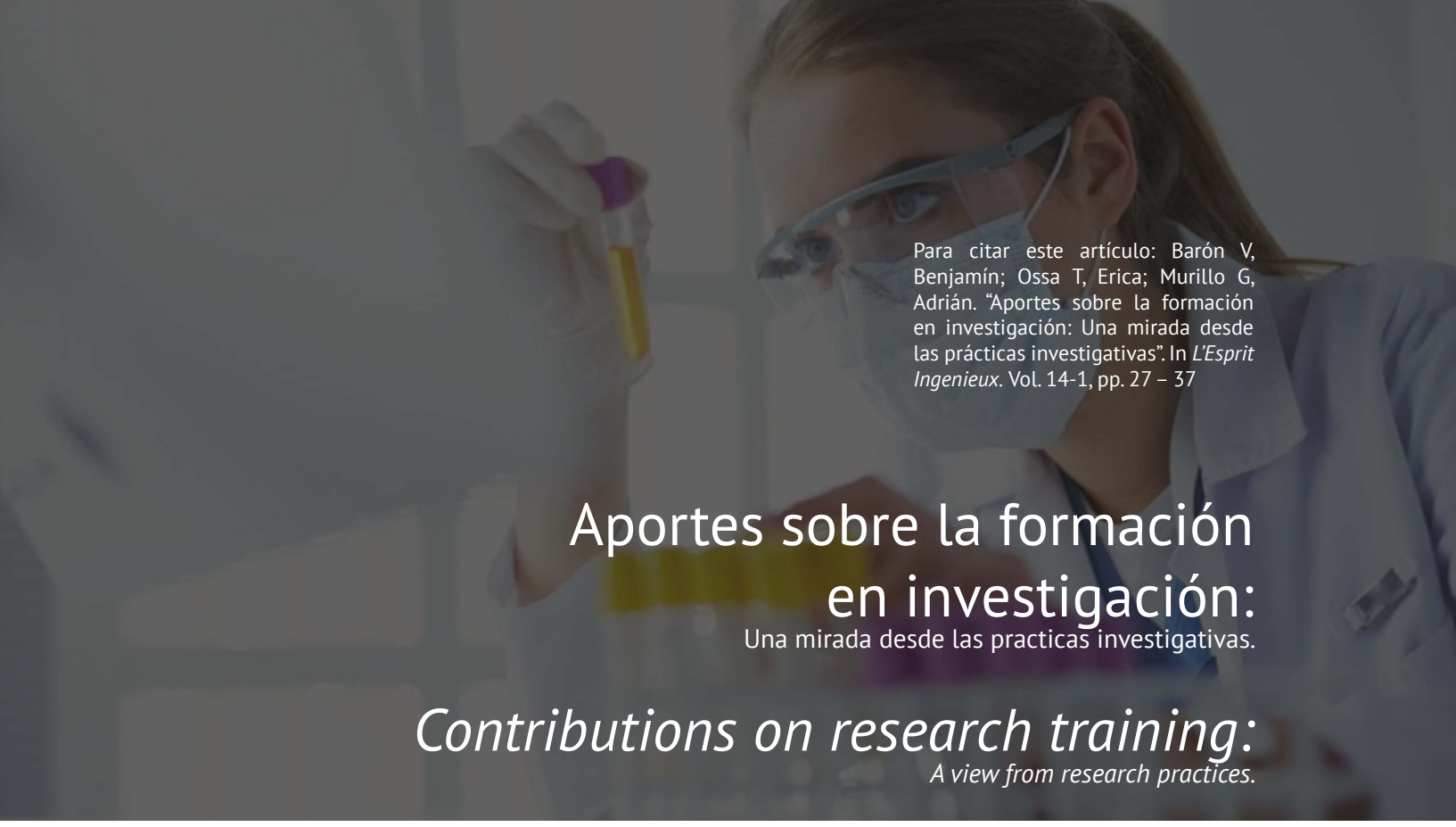

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Aportes sobre la formación en investigación:

Una mirada desde las practicas investigativas.

Contributions on research training:

A view from research practices.

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Resumen

La perspectiva epistemológica de la que deviene el presente texto asume una lectura crítica y juiciosa sobre el contexto actual de donde emergen las posiciones y los participantes del ecosistema científico. Es una propuesta que encarna los *sentipensamientos* de las nuevas generaciones de investigadoras que reclaman lugares y espacios propios en medio de las grandes racionalidades científicas que se han empoderado de manera totalitaria de los modos y medios de producir conocimiento. Las otras formas de reconocer y construir conocimiento, sociedades, culturas y vehículos como el lenguaje se presentan y representan como escenarios en los que se re-crean de manera permanente como un tejido de

realidades participantes, problemáticas, contextos, entre otros. Los otros entendidos que emergen de los cambios cualitativos en las relaciones cada vez son más borrosos en la medida en que no les interesa marcar las distinciones como en otro tiempo; por el contrario, ahora los debates son por las identidades: por el reconocimiento incondicional del *otro* como legítimo otro, no como el enemigo, como el contrincante al que hay que eliminar; por el contrario, se asume al otro como co-constructor y diferencial del yo. Ese yo que no se define en tanto a sí mismo, sino que adquiere características que le permiten ser en relación con los otros, es decir, que le permiten cohabitar, existir en y para otros también.

Palabras clave: Prácticas investigativas, Formación en investigación, Producción de conocimiento.

Abstract

The epistemological perspective from which the present text emerges implies a critical and insightful reading of the current context from which the positions and participants of the scientific ecosystem emerge. It is a proposal that embodies the "sentimental thoughts" of the new generations of researchers who claim spaces, their own spaces in the middle of the dominant scientific rationalities that have taken totalitarian control of the ways and means of knowledge production. Other ways of recognizing and constructing knowledge, societies, cultures and vehicles such as language, are presented and represented as scenarios on which participating realities, problems, contexts, among others, are continuously re-created as a fabric of realities. The other understandings that arise from qualitative changes in relationships are increasingly diffuse, as they are no longer interested in marking distinctions as before; on the contrary, debates now revolve around identities. They revolve around the unconditional recognition of the other as a legitimate other, not as an enemy or adversary to be eliminated; on the contrary, the other is assumed as a co-constructor and differential of oneself. This self is not defined but acquires characteristics that allow it to be in relation to others, that is, that allow it to coexist, to exist also in and for others.

Keywords: Research practices, Research training, Knowledge production.

1. Introduction

Our era is characterized by the crisis of various traditional structures and paradigms, opening up numerous epistemological and ontological emergencies that position the subject in places of deep transition. Discoveries are no longer situated in the exteriority of the subject, but it is the subject, by virtue of his interiority and intersubjectivity, who occupies a central place. Left behind is the distant individual who contemplates science from a distance, where objectivity is understood in direct proportion to the distance between the actors of the research act. This suggests that the longer the distance from the phenomenon under investigation, the greater the degree of objectivity in the results.

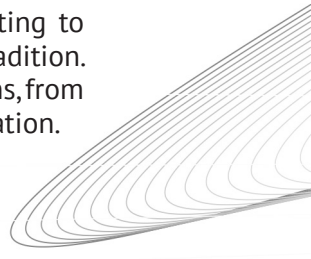
The subject is embodied and alive, inhabits a system of relationships established to know and build connections, according to Morin & Domínguez (2018). The empathy with the other and with others overcomes the traditional scientific approach of examining causes and consequences, as the system of representation inherited from the modern scientific tradition lacks foundation in the perspective of the complex subject, which is "always intersubjective, which requires openness, sympathy and generosity" (p. 30).

Accepting the invitation to consider ourselves as subjects in terms of Morin (1999) and Morin & Domínguez (2018) also entails traversing human sensitivity, moving beyond mere knowledge for the sake of knowledge. This places us in the sphere of the poetic, of learning for the heart, where vital meaning takes on a new existence, enabling us to expand ourselves. "Man poetically inhabits the earth," as Morin & Domínguez (2018) cite Hölderlin.

In addition, it is evident that modernity, with all its structures of control and determinism, is undergoing a rupture due to the emergence of a new scientific "symptom" and of new insubordinate, lateral and subversive forms that embrace error as an essential part of scientific construction and of the subject that undertakes it. In this context, utopias are presented as horizons of possibilities that move at the pace of those who conceive them and walk through them. In the field of research, researchers act as architects of possible futures. In developing hypotheses and designing research methodologies, they create visions of a better world or innovative solutions to existing problems. These research utopias not only inspire scientific progress, but are also intrinsically related to motivation and passion.

From a contemporary perspective, modernity is a paradigm that has become exhausted, having completed its life cycle, and provided rational ways of addressing the lives and conditions of men and women of another era. However, for our time, it becomes necessary to unveil the existence of new paradigms that interrogate existence more by its senses than by adjusting existence to a sense. In this sense, authors like Herrera-Rodríguez (2018) suggest that current practices or specific methods are not necessarily subject to a paradigm, thus epistemologically speaking, rationalist and empiricist paradigms fall into a debate lacking sufficient bases and arguments.

Abandoning modern rationality is not a simple task, as it involves starting to dismantle the reference points that have been ingrained in us as products of tradition. Exposing ourselves to the creation of new languages resulting from new associations, from new scientific communities that validate processes that transcend instrumentalization.



The paradigmatic shift does not resolve the problem; it exacerbates it. Now it is not about resolving, but about signifying, about accommodating reality to theories, methods, ways of seeing the world. Now it is about constructing sets of perspectives that recognize the singularity and complexity of life and do not reduce it to causes and consequences. Now, the task lies in building approaches that embrace the singularity and complexity of life, instead of reducing it to causal simplifications.

Modern science has inherited in our *DNA* the securities that come from adhering to a method and from there providing answers to life's myriad questions. The tradition imprinted in scientific culture is that we solve things with methods, with process mechanics that, if rigorously applied, should not fail, thus banishing human condition, subjectivities, marking error in the subject as the "failure" of the system, condemning them to be operators of methods, to follow a menu devoid of errors, to adhere to an algorithm for all the challenges of their existence. Without distinguishing the existing relationship between the singularity of life and mechanics, the industrial, to which this type of processes and procedures would safely apply because they obey differentiated logics, different ways of being and existing.

It is not difficult to glimpse that the cultivation of critical and creative thinking was not the priority, since what was truly fundamental was mechanization, repetition, rigid models, quantitative approach and deterministic use, among others (Barón *et al.*, 2017). Blind faith in measurement and determination systems led us to believe in the infallibility of the method.

Faced with the series of enchantments and disenchantments that we are currently experiencing with respect to modern paradigms, it is essential to put forward a model to support researchers from the perspective of constructionist theories, in which adaptive models respond to human capabilities and are self-managed by the individuals who co-create them. Since adaptive models allow individuals to recognize the various dynamics of everyday life in teaching (Maturana, 1992).

Designing an adaptive model that can be implemented through a flexible platform where learning, resources and mediations are integral components of transformations in daily practices, establishes interdependence and simultaneity in the processes of knowledge appropriation, without being determined by external factors (Acosta, García & Barón, 2015).

2. Theoretical corpus

The following is a list of the categories on which the proposal is based, together with the texts that most inspired its development. The theoretical framework is made up of four pillars that have been defined as priorities in the *"MOVAI"* research development. These are: researcher training, blended learning, knowledge mode 3 and research practices.

2.1 Researcher training: the processes of training researchers in the global context have been understood in terms of capacity-building and agency through a series of strategies such as workshops, seminars, courses, or training processes within the framework of

master's, doctoral, or postdoctoral programs. However, despite the many efforts made to connect actions, processes, and products to a more complex research system that transcends the mere acquisition of information about theories, methods, techniques, instruments, and lately with the advent of ICTs; we have experienced a strong trend towards learning research software (Castro & Sánchez, 2016).

The above is significant for research processes and research culture. However, it is important to highlight that there are foundations that we have overlooked in these training processes, and it is interesting to rescue them because they are part of those actions that transcend the instrumental or methodical and enable the humanity of the sciences. In accordance with this, Moreno (1997; 2011) proposes that:

> In the process of training researchers, we find as a sine qua non condition the passion for something. It is interesting to observe how this element, which supposedly cannot be taught, becomes a decisive factor in the training of researchers. Propositions like these should be integrated into educational policies so that initial training levels offer a wide range of passions to which future scientists can adhere. This element demands flexibility and openness from curricula and academic programs. (p. 43)

In this sense, in addition to the dossier of practical tools taught and applied in research, it is also important to promote attitudes, passions, and emotions that go beyond the solipsism of research and increasingly infect individuals, so that they find in research an attitude, a new path of life (De Ibarrola, 1989). The need to involve more and more the entities that manage and provide horizons of possibility is urgent, as it is from there that decisions are made and guidelines are established that determine these types of practices within educational organizations at all levels, because the motivation for competencies and interests in research is not acquired in higher education; it is a process that takes place throughout life (Castro & Sánchez, 2016).

2.2 Blended Learning: In order to structurally modify the set of processes that generate individual and collective learning, the category of *Blended Learning* was applied because it is important to understand the horizon, the rationality from which these environments are constructed, and what they offer us with tools and mediations from a technological perspective that promotes human capabilities. In accordance with the above, Hinojo & Fernández (2012) propose that the ability to incorporate *ICT* (Information and Communication Technologies) into education not only provides more opportunities to disseminate knowledge to more places and people, overcoming distances; it also represents an innovation in education.

As well as that, with more possibilities, learning is modified compared to a more traditional teaching approach. Educational practices undergo transformation because the use of *ICT* offers different possibilities that inevitably alter this education to a greater or lesser extent. It is important to remember that *ICT* in education, as well as its transformative capacity, precede the current technological possibilities related to intercommunication and interconnection (Bustos & Coll, 2010). Thus, this new way of understanding teaching allows those in training to have a more enriched learning experience due to the interconnectedness that exists, where different reflections caused by learning can be shared among learners. Also, any potential difficulties that arise in the

process can be resolved by students themselves, without having to rely entirely on the tutor or instructor of these practices. Cooperation among students is fostered through the virtual environment in which everyone operates and shares (Ramírez, 2008).

In contrast, it is important to highlight that both mediations and tools aim to promote learning at different rhythms and in different settings. The focus is on concentrating much more attention on learning rather than on teaching (Bustos & Coll, 2010). Typically, the various dynamics that unfold in the educational sphere focus on teaching, neglecting personalized development processes, where the aim is to develop dimensions of the individual beyond instrumental skills (Hinojo & Fernández, 2012). Promoting activities and attitudes of empowerment are essential for learning because they are not limited to or dependent on the existence of a tutor-teacher-advisor who is there to direct, segment, or administer content; in these rationalities, the role of the student is much more self-managing, as they seek to expand their curve of lifelong learning, finding in the tutor an advisor, a mediator who amplifies horizons of meaning in knowledge.

In addition to the tutor, mediations, and tools, the understanding of time and space is redefined, becoming much more flexible. Regarding time, we can identify three ways of experiencing it in learning:

Firstly, it is no longer defined by chronos, which confines to the existential condition of measuring units in seconds, minutes, and hours, reducing everything to the objective, to limits, to beginning and end, which is found in the duality of losing or winning, among other aspects (Barón, 2017). Secondly, it is understood through the incomprehensible act of divine losing awareness of the passage of time, referring to Aión, where the joy and pleasure of learning surpass the prison of Chronos, of the clock. And thirdly, the timeliness of learning, Kairós, the essence of the perfect moment, when insight is conceived, when without pressure we find that water is wet because it is our discovery, when we truly understand it and not just repeat it.

Regarding space, it is also reconfigured or redefined; the limited view of schools or educational institutions as the only places where learning occurs is no longer understood. Now, the multiplicities of scenarios overflow intelligences and amplify and diversify the possibilities of learning; now, the experience of learning is not tied to a particular place condition but to the emotional understanding that learning and life are one and the same, as Assmann (2002) proposed.

2.3 Mode 3 knowledge: The Mode 3 of knowledge is understood as the relationship existing between university, society, state, companies, and the environment, which is very important as it allows placing the essence of research within the context of the new dynamics of knowledge production, as proposed by Acosta and Carreño:

> (…) One of the characteristics that makes it relevant to actively reflect on the principle of responsibility from what we have termed Mode 3 is the strong and problematic linkage that knowledge and its production have with the process of globalization of the market economy. (2013, p. 80)

Proposing a *Mode 3 of knowledge* production is, in turn, a way to balance forces that sometimes appear antagonistic but which, from this perspective, can be complementary

and cooperative to some extent. It involves questioning the symbiotic relationship between the various issues faced by societies with all their complexities and the diverse activities of knowledge production originating from universities. This does not mean that we continue perpetuating the university as the panacea for the problems and transformations that society requires; on the contrary, in this scenario, the actions of each actor are redefined, with society as an actress and co-constructor of the changes it requires, and the role of the university as that of an agent of change, with all its microsystems being brought into harmony to facilitate this process.

Whereas, the role of individuals comprising the research ecosystem—students, research groups, and seedbeds—is also structurally modified to make research a more socially responsible environment and less geared towards the needs of the market, which sometimes ends up disguising market needs as societal needs. Instead, in this perspective, there is an opportunity to co-create collaboration networks, to provide support for empowering, recognizing, and showcasing the capabilities acquired by territories and communities in their quest to understand their dynamics and to invest in other forms of social transformation and capacity building (Acosta, 2016; Acosta & Barón, 2023).

A Mode 3 of research implies that the perspective of research agents shifts towards understanding and solving problems and realities that are situated on a much more transversal plane, where thought is delocalized and travels in search of new conversation networks that position scenarios for articulation of diverse actors. This means transcending the act of fulfilling their responsibilities as substantive functions of higher education and also taking on challenges that universities face, which go beyond the required training and production profiles. In this sense, the subject "agent" in terms of Bourdieu, because it is not a passive actor, but mobilizes and changes the relationships of its "social field" context, emerges from research or intervention processes, and demonstrates its potential, with political positioning and transforms its own reality (Roa - Mendoza, 2016). The endpoint is the development of environments for transformation, agency, and empowerment of communities as protagonists of their realities and change alternatives.

In Colombia, there are ongoing discussions about the relevance and legitimacy of knowledge production at the level of higher education, and it is recognized that there is a need to engage with communities and respond to the felt needs of realities, not only confined to contextual scenarios designed to satisfy disciplinary fields.

Thus, "it is expected that research processes incorporate inclusive practices, where researchers foster the active participation of citizens and communities with whom they jointly develop initiatives for social appropriation of science, technology, and innovation" (*Minciencias*, 2021, p. 8).

3. Research practices

The category of research practices was created from the field theory of Pierre Bourdieu (1980), who defines the field as the arena where struggles for the acquisition, increase and transfer of capital (economic, social and cultural) take place. For the research, Bourdieu is illuminating to the extent that he makes it possible to recognize the two understandings involved in the practices, to distinguish them and to define the direction that will be taken here.

First, Bourdieu (2005) acknowledges a way of understanding practices from the scientific disdain for them, considering them mechanical actions that are not reflected upon or thought out, but executed in the realm of mechanical comprehension of everyday habit. Practice is always undervalued and little analyzed when, in reality, to understand it, much technical competence is required, paradoxically much more than to understand a theory. It is necessary to avoid reducing practices to the idea we have of them when we have no experience beyond logic. Now, scientists do not necessarily know, lacking an adequate theory of practice, "how to use the theory that would allow them to acquire and transmit authentic knowledge of their practices" (p. 75).

According to the above, it is important to recognize that practice transcends the mechanical events of the everyday and leads us to the restoration of its value in the construction of theories, in the preponderant role it plays in the exercise of self-reflexivity to singularly feed and substantiate theoretical sources.

Therefore, Bourdieu (2005) aims to restore the value that requires constant reflection, that is, on the context and its development in the realm of everyday life and also in the realization of practices in the scientific field, since it is from there that understandings and solutions are conceived in correspondence with theory and the observed problem. The impossible and necessary dialogue between theory and practice must take place because it is necessary to recognize the singular validity that the constructions of practices have in the context, and in that sense, the distinction of the reference points from where each one has been built, without subalternizing the sui generis of the source of information or knowledge (Maldonado, 2019). "Facts make sense from a theory; in turn, all research practices organized as a result of the chosen method are related to the respective theory" (López De Parra *et al.,* 2019, p. 197).

The foregoing allows recognizing the current state of understanding research practices. For Villegas (2016), cited in López De Parra et al. (2019), these practices have a fundamental commitment to society's problems because they are intimately linked by their need to expand the capacity for change of existing relationships among agents, through the mobility of habitus and the equitable redistribution of capitals, especially economic ones.

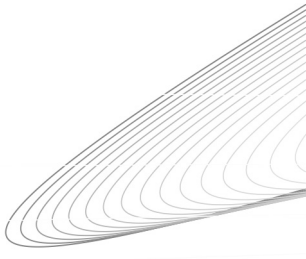
Conclusion

To conclude, it is important to close the understanding of research practices with a third concept: habitus. Recognizing habitus from Bourdieu's perspective (1994) allows us to focus research actions in a much more situated and applied context.

> Habitus are systems of lasting and transferable dispositions, structured structures predisposed to function as structuring structures, that is, as generative and organizing principles of practices and representations that can be objectively adapted to an end without presupposing the conscious pursuit of goals and the explicit mastery of the operations necessary to achieve them, objectively 'regulated' and 'regular' without being the product of obedience to rules, and, at the same time, collectively orchestrated without being the product of the organizing action of a conductor. (p.92)

Habitus can be understood as durable, lasting, and reproducible dispositions. It is the relationship constructed between ways of thinking, feeling, and acting, with the position occupied by an agent, in our case, an individual researching in a specific field, and their capacity to mobilize, which in Bourdieu's framework establishes those struggles for the possession of capital. In general terms, it is the cultural capital that an agent possesses, which has been acquired since birth, through the educational system, social, and economic relationships, among others, that shape who we are and what we do.

Within the context of research training, it is pertinent to emphasize that habitus constitute our research practices and leave their mark on the way we do research. They connect our actions and allow us to obtain, maintain and increase capital in its various forms, *e.g.*, cultural, economic, symbolic and social. This facilitates the mobility of those engaged in research in the scientific ecosystem, leading to upward mobility, i.e., the transformation of the roles of the different actors in the work environment according to their learning processes.



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