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Redefining those subtle borders: transhumanism, frontiers, retroprogression and hermeneutics at the crossroads of teaching

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The field of education is undergoing significant transformations, which implies that valuable views from the past may be completely overlooked in the rapid progress we are experiencing. Transhumanism, as a prevailing ideology, appears to imply an advancement at an ever-increasing speed. An interesting prospect would be to reflect on transhumanism in relation to retroprogression and phronesis to understand how limitations operate within the realm of education. Interpretation, therefore, becomes one of the fundamental tools for educators in this highly complex environment. Their role as meta-interpreters can be founded in a return to hermeneutics as both an art and a science. By doing this, the past and future can be harmonized in the present, with the transhumanist principles maintaining the human element. In conclusion, education will continue to be an act of human understanding that necessitates complete attention and presence of educators, who are, therefore, able to offer meaningful actions by properly understanding the here and now and the uniqueness of every teaching situation.

KEYWORDS

transhumanism, frontiers, education, retroprogression, teaching, hermeneutics

1 Introduction

The nature of the human being is characterized by a duality, holding the essence of both “being” as a noun and “human” as an adjective. This nominal group collectively develops a new nature from the hybridization of its “beingness” and “humanity” aspects. This fundamental premise is founded in the logical reflection that will be detailed in the subsequent sections, specifically from the educational perspective.

The “being,” therefore, *is*, and it is so in an absolute manner, in its most abstract mode, but this absolute “being,” that is *being*, shows its full potential in that which is individual as well as particular. The human being, then, shares this beingness with other beings, who in turn possess shared attributes among themselves, although these attributes may also vary. A similar phenomenon can be observed when considering the concept of transhumanism (or proper posthumanism); we find both commonalities and divergences or dissimilarities, provided we approach it without any dogmatic viewpoints. Considering these aspects, we believe that, on the one hand, they should be considered in the teaching and learning domain; on the other hand, they should be approached from an interpretative state of mind. To be understood fully,

we believe that this interpretation must be rooted in the metaphorical sense of space (as far as borders and frontiers, as we will explain below).

If we acknowledge that this is the moment when human beings must assume responsibility for their evolution in order to direct and even design it (Diéguez, 2017), we must have a keen awareness of both the desired outcome and how we intend to attain it. The approach to reach the desired outcome is a complex aspect. Human beings' decision to prioritize movement, transcendence, and advancement marks a distinct path toward growth. Therefore, as we progress further and higher, it is important not to lose sight of the origin of our journey (Pániker, 2001, 2006, 2016). We often do not pay enough attention to our origins. While we are running forward paying no attention to the past, not merely for the sake of movement, but in the hasty pursuit of a promising future, the future often tends to degenerate into a certain form of dystopia. This tendency leans toward authoritarian and technological dystopias, arising from a misguided utopian desire that lacks human understanding of the past and holds blind faith in a future that is completely detached from the original state. The origin, thus, is a reality transhuman views are better not to avoid because the origin is indicative of the essence of a true human (Velázquez Fernández, 2009). Transcending too far away from the origin does not necessarily imply going beyond being truly human (driven by the impulse for transcendence and progress). Rather, it signifies detaching definitively from the origin, which is seemingly an irrational route for human beings to tread. Peirce (2013) pointed out in his synechism theory that changes are never total or sudden because there is always a sense of gradation from one stage to the other. For Pániker (2016), then, progress needs some sense of retrogression. We move forward, but being aware of the origin, which is never out of our sight, that is, one step along the road of progress entails looking back to remember our previous place. In this sense, the origin is recovered and somehow updated. This somewhat contradicts the theory of singularity (Kurzweil, 2006) according to which we will reach a moment in history when progress advances so quickly that it would be impossible to understand or even place the origin of the entire journey. The issue here is both speed and the goal. However, we, as a species, have been trying to counteract this fast pace with trains of thought such as the ones proposed by Maffei (2016) or Le Breton (2014). Furthermore, other ways of living such as living with less (minimalism) or slower (slow living) have been proposed. Here, we encounter a kind of aftertaste for the "dark side" of things, and our consciousness is somehow nurtured from this "dark source." This concept has been better explained by Eastern authors than their Western counterparts:

If only because of these details, it is evident that our own imagination moves in darkness as black as lacquer, while Westerners even attribute to their ghosts the limpidity of crystal. The colors we like for everyday objects are layers of shade: the colors they prefer condense in themselves all the sun's rays. We appreciate the patina on the beach and copper; they consider it dirty and unhygienic and are not happy until the metal shines by dint of rubbing. In their dwellings they avoid nooks and crannies when they can and whitewash roof and walls. Even when they design their gardens, where we would place shady forests, they lay out wide expanses of grass (Tanizaki, 2014, p. 71).

We, therefore, examine the first characteristic of transhumanism and how it can be updated considering other worldviews. Progress is

in no way rejected but simply reconsidered while reflecting on its true essence.

By contrast, our perception would fall more within a transhumanism of cultural or critical bias rather than in a properly technoscientific one—a division that has been elucidated, for example, by Diéguez (2017). In this way, the drive that directs our growth is both centrifugal and centripetal and, therefore, hybrid and crossbred. It seeks to diffuse clear boundaries and manifest itself in a distinct will to reach a limit, which is first absorbed by the center and then moved away again, thus allowing us to seek a new frontier to explore. Hence, we observe, and as we will repeat later, that human beings are transcendent beings and that, therefore, in one way or another, they will sooner or later approach the transhuman state. However, we understand this concept first as a field of critical evolutionary thought that accepts the human's impulse to gravitate back to the origin and not so much as a mere accumulation of technical and scientific achievements that will lead us to a promising future. Anticipating the future and determining what will yield a better future is a challenging task because the future settles in the present and unfolds gradually. This makes it difficult to predict future events and what will be advantageous in a particular yet-to-exist time. Furthermore, envisioning the future is a mental projection involving its inherent risks. To comprehend these complexities, we should consider the insights of authors such as Serra (2009), who exhibit prudence in their analysis of these hyper-complex issues.

2 Transhumanism, teaching, education, and phronesis

It is time to examine education from a novel viewpoint without rejecting traditional stages:

Our societies have a differential feature from those of the past in which it generates, develops, and spreads knowledge at the speed of light, a cognitive issue which has direct social and geopolitical repercussions, in a way of feedback between society and knowledge. But it is advisable to differentiate between knowledge and information. Knowledge consists of the information acquired by a living being through experience or education, and that, if used with full capacity and liberty, allows critical thinking. That's why there are people who have a predisposition to go further cognitively day after day trying to understand both the world outside and themselves. These people experience, as Kant termed it, their own intellectual depth. In the same way, children are cognitive sponges, as it is stated in the active schools that promote the student empowerment (Martos García, 2015, p. 149).

The world seems to be evolving at an accelerated pace, with information processing becoming increasingly complex and social media facilitating easy information transmission like never before. These changes are transforming the methods of knowledge acquisition in the educational context. This is because informal education affects formal education, and this interplay is even more conspicuous in our current hybrid and fluid age. An educational system disconnected from the social structure, akin to a system built on an ivory tower, is bound to be ineffective. This is because an educational system should be within a larger social structure to be effective. Therefore,

considering the abovementioned ideas, we can discuss the development of an educational system based on transhumanist principles, but it necessitates careful observation and consideration of our current circumstances and future directions.

The culture of fragments, which is typical of the Internet era and the generations that have been nurtured within it, has, like everything else, a double side. The speed of its growth often prevents its deepening; therefore, it is important that, from the education sciences in general and didactics (the science of teaching) in particular, we must strive to interweave the reality in which we currently move and the need to not lose sight of the past achievements. Our objective is to understand the transhumanist possibilities within educational systems from a prudent viewpoint, which requires an examination of analogical hermeneutics. This philosophical concept was proposed by [Beuchot \(2003, 2009, 2014, 2016\)](#), a Mexican author who has developed a series of ideas and applied concepts that we consider to hold maximum validity.

Perhaps, understanding education and its formalization in didactic models from a prudent perspective would be the most beneficial in the current time. Therefore, it is important to focus on the importance of education with a phronetic characteristic because the Aristotelian phronesis serves to illuminate reality as a complex construct based on changing relationships between various subjects in a social environment. The following statement should be considered:

Basically, it is a matter of the formation of phronesis or prudence, of prudential judgment in both theory and practice. To make the individual come to form the judgment, and have the virtues necessary to live in society, as recently formulated by Alasdair MacIntyre in his recovery of virtue ethics, in which he is accompanied by others. (...) With this we see that the history of pedagogy has carried within it the search for an analogical education, structured in moderation and proportion, which is what analogy means in Greek. This sense of proportion corresponds to phronesis or prudence, as well as to other virtues. It is therefore very coherent that analogical hermeneutics opens us to an education in virtues ([Beuchot, 2016](#), p. 92-93).

Considering the educational context, it is advantageous to contemplate any transhumanist impulse from a “prudent” and, therefore, phronetic perspective. This is especially true because the proverbial “middle way” is configured as a substrate of human welfare and the transhuman, even if it surpasses the human, comes from it, and therefore does not refer so much to a total change of species as to a progression and a change of certain aspects while preserving others that are fundamental structural elements. This is similar to the ideas put forth by authors such as [Grüm \(2016\)](#) concerning the future of humans or, rather, the vast present. We are confronted with a search for equity, calm well-being, and the ability to navigate through the most violent storms and transit through the calmest plains where nothing extraordinary occurs. We are in pursuit of the middle ground, which is one of the goals of human beings, as they recognize, upon delving into their own essence and that of the world, the presence of evident truths that are anchored in the transpersonal. However, regarding this idea, as with many other truly important things, poets have spoken much better, they being the scientists of language for whom the essence of the world is not so much what is seen, felt, and

said (or what is objectively measurable) as what is left unsaid and intuitable, thus appropriately forming the lyrical framework of the human world. The following lines by T. S. Eliot makes this clear:

At the still point of the turning world. Neither flesh nor fleshless;
Neither from not towards; at the still point, there the dance is,
But neither arrest nor movement. And do not call it fixity,
Where past and future are gathered. Neither movement from
nor towards,

Neither ascent nor decline. Except for the point, the still point,
There would be no dance, and there is only the dance.

(T. S. Eliot, *Four Quartets*, “Burnt Norton”) ([Eliot, 1995](#))

Meanwhile, we have defended issues related to these aspects in other places. Specifically, we have observed didactics as an appropriate ground for an analogical educational utopia, inspired by Beuchot. We have also explored the retroprogressive mode, as put forth by Pániker ([Francisco Carrera, 2017](#)) and a science that finds new horizons when contemplated from certain fundamental assumptions of analogical hermeneutics ([Francisco Carrera, 2016a](#)), something that would be interesting to review when proposing an educational system or didactics based on transhumanist principles. We have also dealt with the need for contained didactics to stimulate creativity while consistently maintaining a deep respect for human environments ([Francisco Carrera, 2016b](#)). This concept is particularly relevant to the subsequent section of this article, which is directly related to the concepts of frontiers and boundaries.

3 Transhumanism, limits, retroprogression, and human evolution

Human beings live in limited environments; from their bodies to their conceptions, they face limitations that are biological (as a species), psychological (mental), and cultural (as a social group). Some seem easier to transcend than others. But transhumanism seems to have no limit that is impossible to overcome, a notion that we agree with to a certain extent because it resonates human beings’ constant desire to transcend boundaries. Human beings are creatures who inhabit limits and explore frontiers in their day-to-day life. Their encounter with the world and the other is the first approach to these new frontiers. Moreover, human beings are on a constant pilgrimage, and it is not without reason that life is likened to a journey in our cultural heritage. Let us stop, to begin with, at the first physical frontier that welcomes us and encloses us: the skin. In our body, we inhabit a “country” of our own, with the skin containing us, keeping us from disintegrating, surrounding us while making our approach to the world and others as desirable as it is feared. Let us consider the pleasantness of a caress and the unpleasantness of a violent blow. Similarly, the mind, with its limits in the psychic order, and culture simultaneously imprison and protect us. This highlights the paradox that the prison that encloses us also has in its origin the potential to provide us with the most absolute freedom, while what protects us in turn potentially encloses us because it makes us feel so comfortable that we tend toward total immobility. This duality, so properly human, refers to the need for limits. Limits signify us while they lead us to consider the possibility of trespassing them, and therein lies human beings’ will to transcend.

Mèlich's philosophy of finitude clarifies this concept better. Finitude, which is an ontological element of the human being, is not a dead, stony, and immovable element, but quite the contrary:

From this perspective we could say that there is no substantial subject that is realized in history, but that everything we can affirm about the human condition takes place in a history, in a narrated time and, therefore, in a fabric of interpretations. The very finite condition of the human being makes no sense without reference to concrete time and space, because finitude also has to be interpreted and lived. The experience of finitude depends on time and space, on a time and a space (Mèlich, 2012, p. 44).

Acknowledging that human beings have limits, far from being something that should discourage us, can serve to reflect deeply on the reason for those limits. This initiates a process of observation and acute experimentation that will definitely take us further, in one way or another. To progress further in the pursuit of better understanding and greater awareness, it is important to take a step back to reach a wider field of vision. Sometimes to see the light, we must step back into the shadows. As we have previously referred to Tanizaki's vision of the shadows, we once again turn to his insights in this section because his words possess a remarkable ability to enlighten:

Looking at it closely, as we Orientals try to adapt to the limits imposed on us, we have always been content with our present condition; we do not experience, therefore, any repulsion towards the dark; we resign ourselves to it as to something inevitable: that the light is poor, so be it! indeed, we sink with delight in the darkness and find them a particular beauty (Tanizaki, 2014, p. 71-72).

Obviously, the dichotomy between the progressive and the reactionary is apparent; however, that would be a simple reading of facts as one has to look beyond "towards progress" or "towards regression." As a result, we are greatly in favor of "retroprogress," as advocated by Pániker:

The entire history of science, and even of culture, is defined by a movement of fragmentation and distancing from the origin that, paradoxically, feeds back into an impulse to recover the lost origin. This impulse to return to the real is, as I explained pages ago, what generates the invention of myths, rites, symbols: resources to cover a helplessness, attempts to stand on one's feet and recover the lost security (...) But that same distancing is what in one way or another pushes to a critical retroprogressive process without which the evolution of science and culture cannot be understood (Pániker, 2016, p. 103-104).

Again, it should be noted that, in different forms, the idea of maintenance of the past in cultural and human history has also been discussed, for example, by authors such as Donald (1993), Joas (2013), or Gebser (2011).

Donald is of special interest in this context as there are many insights in his seminal work *Origins of the Modern Mind* (1993). This is the case especially with the revolution of digital work and its new storage system, as the author pointed out:

But the external symbolic system imposes more than an interface structure on the brain. It imposes search strategies, new memory access routes, new options in both the control of and analysis of one's own behavior. It enables new skill-complexes (like reading and programming) in which the locus of memory is partly or mostly external. The decipherment of the innate neuropsychological structure, including the external modules and memory loci" (Donald, 1993, p. 19).

A concrete storage system implies a new way to access and process information, both past and present. At the same time, it has an impact on the cognition processing of the information. In such a way, past and future merge in the present in a hybrid mode of understanding reality. Indeed, this is a good example of what Pániker refers to (in the quotation stated on the previous page) as retrogression. This is the crux of human development where both the past and the future meet in the present. It is not a denial of the past or the future but a way to reach a commitment to see both worlds merging in the present. Preserving what is worthwhile, improving what must be improved, in a hybrid thrush is also what Donald concurred with when he referred to the third transition in the "external symbolic storage and theoretic culture" and "the hybrid modern mind" (p. 355). The idea of heritage is surrounded by an impulse to reinterpret what has already been understood, and in doing so, humans progress in many fields and the past is preserved or modified to reach a better way of being manifest in the present of every society. This way of understanding human advancement is based on the subtle need in our lives to find balance—the ancient fight between the "too much" and the "not even enough." In the pursuit of finding a middle ground where the old and the new are intertwined, the past is always reinterpreted to suit the present needs better. As such, we are also facing the need to account for what is different but never too different, exemplified by our cultures. The others may seem foreign to our eyes, as we are foreign in their view, but we belong together as human beings; we are just different faces yet with the same inside. Understanding this situation is imperative, and education is a highly important realm to preserve in those terms. Education is a tool to remember the past, improve the present, and reach a more harmonious future. Reimers (2021) acknowledges the significance of understanding the importance of the situation, especially in his endeavor to be extremely cautious when educating human beings to understand and implement the principles of responsible citizenship. Undoubtedly, for this, it is essential for us to be open toward the others, as emphasized by Gadamer in his interpretation, especially when defining the process of hearing and listening as "an openness to the other's dimension" (Gadamer, 2002, p. 71). In this sense, it becomes evident that as educators, we must work hard to enable our students to be aware of the importance of understanding the others in a holistic and integrated way. While maintaining our focus on our center, we must also understand ourselves while being aware of the situation we face as a medium of connecting with the others, whom we seek to understand, without trespassing their boundaries, but rather approaching with caution to gain a clear perspective. Therefore, in this focal point of understanding, we must acknowledge that the situation is always hybrid and fluid, thus inherently hyper-complex.

Here it is worth recalling the importance of uncertainty as a principle of reflective teaching (Bárcena Orbe, 1993) and perhaps more pertinently what Mèlich (2003) calls the wisdom of uncertainty

in education, specifically because human beings must constantly tolerate uncertainty and adapt to changing situations mediated by fluid and complex contexts. Again, Donald (1993) comes to mind with his discussion of the stages of adaptation of the cognitive human device development. The three stages he purports account for the idea of both a will to proceed further and a subtle capacity of adaptation to what is new or necessary in a precise evolutionary stage. Education is a field deeply rooted in this complex vision of reality, a hybrid construct where past, present, and future coalesce to offer a rich tapestry of complex relationships. It should be noted that this understanding of education is almost a metaphor of our human nature, giving us a space for reconsidering ideas we have taken for granted. It is not as simple as discarding what seems old-fashioned and non-functional, but rather, it is way more complex and, in reality, an entity focused on adaptation and self-preservation. Adaptation helps the organization (or organism) stay alive (preventing it from becoming stale and stagnated), while self-preservation motivates one to pay attention to the past and traditional values, without losing sight of the origin, as Pániker (2001) pointed out.

Finally, it is worth mentioning in this perspective on the boundaries of others that to educate and embrace the limits not in a restrictive manner but in an ontological sense, it would be advantageous to shift our focus toward a philosophy of proximity similar to that of Esquirol (2015). This shift would considerably enrich our journey through life and the world, being attentive to the others who exist independently from oneself yet have the ability to validate one's presence and interpretation through their perspective, acknowledging the potential brotherhood (with every human being held in the highest degree) to the extent that encourages one in every action and word. Similarly, Riechmann's (2004, 2005, 2009, 2015) proposal for self-containment would help us understand the world as a shared, limited space that needs the prudent and warm touch of humans for its better management in the political and social spheres.

Thus, the sources that nurture any education system are manifold. Educators and researchers in the field of education are expected to approach this complex matter humbly and sensibly. In particular, the classroom holds great significance as it represents the actual manifestation of theoretical knowledge. It signifies a moment where different worlds intersect, with different ages, cultures, and sensitivities coming together, and a moment where differences are to be celebrated in the pursuit of a greater goal that transcends them rather than neglecting them. Therefore, utmost care, gentleness, and professionalism are required in handling education as it is a serious endeavor. Educators and researchers must combine the passion of a poet with the careful precision of a scientist. After all, poetry and science both attempt to explain reality with distinct languages and techniques. Upon further contemplation, it may be the converse; what we truly need is the careful precision of a poet and the passion of a scientist. This idea reminds us of the interconnectedness of poetry and science, a relationship that was more prevalent in the past but which we tend to forget.

4 Conclusion: toward a new education that does not deny the origin

In these challenging times (which one of the previous ones was not also challenging anyway?), one cannot but be patient and

reflective. This is the moment to acknowledge our weaknesses without feeling ashamed of our strengths. We may do certain things poorly, even very poorly, while faring well or even excelling at others, but the majority of our actions are, as is the nature of everyday life, ordinary and routine. These actions are neither extremely good nor extremely bad; they are strictly regular, not causing any apparent changes in anything, but holding significance for others that we are convinced as "important." Everyday life, in its simplicity, silently blooms before us, devoid of dreadful tragedies, heroic gestures, or extravagant fanfare or fireworks. Yet we rise each day and strive to do our best, engaging in mundane activities such as eating, shopping, and cooking, without much ado. At times we are selfish, while at others, we exhibit generosity. Sometimes we are brave, more often, fearful, and this is enough, more than enough, we would argue. It is the same age-old narrative unfolding in countless different ways. This has been the case for centuries, and it appears that it will continue to be so in the future. However, none of this should deter us from being reflective and critical, particularly in the realm of didactics and education, because it holds a formative value for human beings. With all these considerations in mind, let us explore one of the essential keys to understanding the education of our time:

In short, a philosophy of finitude defends that it is up to the educator to be the link between the old and the new, to respect the past - because one can never innovate completely and independently of the grammar in which one was born - and to respect the future - the novelty and change that each newcomer carries in him/herself. Education cannot belittle the past, but neither can it remain fixed in it, as if it determined the present and the future to the point that nothing new could happen (Mêlich, 2012, p. 77-78).

We believe that this is the key element. There is little to elaborate on this matter. The new education comes from the old education, while the old education is a prelude to the new education. Neither the new nor the old, after all, can be considered as the reality. The only proper education is the one that occurs in the here and now, the absolute present moment, which appears elusive yet inescapable.

Again, we are facing a highly important issue. That is precisely why Donald's theories of the three stages in the evolution of human culture and cognition hold such relevance today. The theories provide a solid ground to promote an evolution deeply rooted in our human condition, one that respects our past while promoting evolution that propels us further toward cognitive advancement. In our pursuit of sustainable improvement, we must also definitely consider the importance of human rights. This is where Joas' work becomes essential. Joas (2013) has emphatically implied that both historical and philosophical approaches to the matter of human rights are to be considered and merged. By doing so, we can appreciate how Joas argues that the sacredness of the person is not necessarily the sacredness of the individual. He emphasizes that the former "ensures that the intended belief in the irreducible dignity of every human being is not immediately mistaken for the unscrupulous, egocentric self-sacralization of the individual and thus the narcissistic inability to break away from self-referentiality" (Joas, 2013, p. 51). Therefore, this serves as solid evidence that supports a sound education system that places the human being as a person, and not as an individual, at its core. This approach does not deny the differences that make each one

of us unique. Instead, it reaffirms that we are all in this together and underscores that our longings are the same. Therefore, a transhuman education does not expect us to transcend our human nature; rather, it is a way to point out that we are here to move forward to reach higher goals. The prefix trans- implies to go beyond, and therefore this is about frontiers/limits and movement. Even going beyond being human implies that it started in the human root of the scale; in other words, going beyond human implies that we are well aware of how it is to be human, and we move forward while looking back. This is progression without losing sight of the origin, thus a retrogression (Pániker, 2001). As Donald (1993) stated, we first moved from an episodic to a mimetic culture, then forward to a mythic way of understanding, which is based on narrative cognitive devices, and finally (for the time being, of course), we reached our hybrid modern mind where the external symbolic storage, as we mentioned above, influences the way we process the world and ourselves. Where do we go from here, now? Time will tell. Clearly, this is an ever-evolving process.

A transhumanist education or didactics, we believe, should be highly aware of what is coming and where it began. At the same time, its focus must be finite and limited, contextual and, therefore, interpreted in the present. To this end, teachers as meta-interpreters (since they encompass a gradual and layered interpretation of varying degrees) become essential elements of this educational system and of its hands-on teaching projection in each classroom moment and action. Something different would be a non-human education, which, at this point, appears to us a dystopia more typical of fiction than that of the reality we are designing with each cultural manifestation and social construct. We conclude this article with our belief that the most important trait of transhumanism-based education and teaching is the true hybridization of the past and the future in the present. Undoubtedly, the human element remains integral, along with what transcends it (not denying the progress in this regard, facilitated by technology, in our evolutionary path as a species). However, the key piece is what is in the middle, in the amalgamation that occurs in the alchemical oven, unifying the head (reason) and the heart (passion). With this perspective in our mind and heart, let us aspire for passion

and compassion to consistently permeate our reflections on how to enhance the process of education.

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The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

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References

- Bárcena Orbe, F. (1993). El tratamiento de la incertidumbre en la enseñanza reflexiva. Bases para una teoría del juicio pedagógico. *Revista de Educación* 300, 105–132.
- Beuchot, M. (2003). *Hermenéutica analógica y del umbral*. Salamanca: San Esteban.
- Beuchot, M. (2009). *Tratado de hermenéutica analógica. Hacia un nuevo modelo de interpretación*. México, D. F.: Itaca.
- Beuchot, M. (2014). *La huella analógica del caminar humano*. Madrid: Acci.
- Beuchot, M. (2016). *Hechos e interpretaciones. Hacia una hermenéutica analógica*. México, D.F.: Fondo de Cultura Económica.
- Diéguez, A. (2017). *Transhumanismo. La búsqueda tecnológica del mejoramiento humano*. Barcelona: Herder.
- Donald, M. (1993). *Origins of the modern mind. Three stages in the evolution of culture and cognition*. Harvard: Harvard University Press.
- Eliot, T. S. (1995). *Cuatro Cuartetos (Bilingual Edition by Esteban Pujals Gesali)*. Madrid: Cátedra.
- Esquirol, J. M. (2015). *La resistencia íntima. Ensayo de una filosofía de proximidad*. Barcelona: Acanalado.
- Francisco Carrera, F. J. (2016a). *La hermenéutica analógica aplicada a la didáctica: algunas consideraciones preliminares*. Soria: Ceasga.
- Francisco Carrera, F. J. (2016b). El deseo de nada. Una propuesta desde la didáctica de la contención y la interioridad. *Hermeneutic* 15, 19–27.
- Francisco Carrera, F. J. (2017). “Didáctica y Utopía desde una perspectiva hermenéutica y retroprogresiva” in *Hermenéutica, Educación y Sociedad: en los albores de la utopía*. eds. E. Jiménez García, R. de la Fuente Ballesteros, and F. J. Francisco Carrera. (Madrid: Acci).
- Gadamer, H.-G. (2002). *Acotaciones hermenéuticas*. Madrid: Trotta.
- Gebser, J. (2011). *Origen y Presente*. Girona: Atalanta.
- Grüm, A. (2016). *El arte de la justa medida*. Madrid: Trotta.
- Joas, H. (2013). *The sacredness of the person: A new genealogy of human rights*. Georgetown: Georgetown University Press.
- Kurzweil, R. (2006). *The singularity is near. When humans transcend biology*. London: Penguin.
- le Breton, D. (2014). *Elogio del caminar*. Madrid: Siruela.
- Maffei, L. (2016). *Alabanza de la lentitud*. Madrid: Alianza.
- Martos García, A. (2015). *La educación cuántica*. Corona Borealis: Un nuevo paradigma de conocimiento. Málaga.
- Mèlich, J. C. (2003). La sabiduría de lo incierto. *Educar* 31, 33–45.
- Mèlich, J. C. (2012). *Filosofía de la finitud*. Barcelona: Herder.
- Pániker, S. (2001). *Aproximación al origen*. Barcelona: Kairós.
- Pániker, S. (2006). *Ensayos retroprogresivos*. Barcelona: Kairós.

- Pániker, S. (2016). *Asimetrías. Híbridos y retroprogresión*. Barcelona: Kairós.
- Peirce, C. S. (2013). *La inmortalidad a la luz del sinequismo. Obra filosófica reunida, Tomo II*. México, D.F: Fondo de Cultura Económica.
- Reimers, F. (2021). *Educación global para mejorar el mundo. Cómo impulsar la ciudadanía global desde la escuela*. Madrid: Editorial SM.
- Riechmann, J. (2004). *Gente que no quiere viajar a Marte. Ensayos sobre ecología, ética y autolimitación*. Madrid: Catarata.
- Riechmann, J. (2005). *Un mundo vulnerable. Ensayos sobre ecología, ética y tecnociencia*. Madrid: Catarata.
- Riechmann, J. (2009). *La habitación de Pascal. Ensayos para fundamentar éticas de suficiencia y políticas de autocontención*. Madrid: Catarata.
- Riechmann, J. (2015). *Autoconstrucción. La transformación cultural que necesitamos*. Madrid: Catarata.
- Serra, J. (2009). Reinventing the wheel: common sense and responsibility in future studies. *J. Future Stud.* 13, 147–150.
- Tanizaki, J. (2014). *Elogio de la sombra*. Madrid: Siruela.
- Velázquez Fernández, H. (2009). Transhumanismo, libertad e identidad humana. *Thémata Revista de Filosofía* 41, 577–590.