The science and philosophy of memory in the 21st century. Part IV. Antecedents (3): notes on existential philosophy, philosophical anthropology, and phenomenology (Jaspers, Plessner, and Merleau-Ponty)

A. Rábano Gutiérrez

Centro Alzheimer Fundación Reina Sofía - Fundación CIEN, Madrid, Spain.

ABSTRACT

This article, the fourth in a series dedicated to the science and philosophy of memory, and the third on its antecedents in the 20th century, briefly reviews three philosophical movements, focusing on some of their most representative thinkers: existential philosophy (Karl Jaspers), philosophical anthropology (Helmuth Plessner), and existential phenomenology (Maurice Merleau-Ponty). Although not all of these show a characteristic focus on memory, these philosophical perspectives are closely linked to relevant scientific and medical developments in the 20th century, particularly in the fields of neurology and psychiatry. Memory (whether normal or pathological) is always present in Jaspers' philosophical and clinical thought, although it takes a secondary, deep, immanent position. Plessner, in turn, adopts the interpretation of memory of one of his masters, Hans Driesch, incorporating it into his own view of humans as living beings characterised by *excentric positionality*. Finally, the existential phenomenology of Merleau-Ponty does include an elaborate theory of memory, linked to the concepts of body, world, flesh, and chiasm, which were subsequently developed further by such other authors as M. Foucault and G. Deleuze. With this final journey through the work and thought of three fundamental authors of the 20th century, we conclude our review of the philosophical antecedents to 21st-century reflection on memory. Thus, the groundwork is laid for a historical analysis of the neuroscience of memory in the 20th century, which will be addressed in the next article in the series.

KEYWORDS

Philosophical anthropology, 20th-century philosophy, Jaspers, memory, Merleau-Ponty, Plessner

Introduction

Once again, like in the previous three articles in this series, we must first "look back," following the poet Machado, ^{1(p836)} to assess our *situation* (an important term for some of the authors addressed herein). The first article traced an arc, perhaps too broad, from classical antiquity to the contemporary world, showing the original ground to which we may return, plant ourselves, when needed. The second introduced us, in the 20th century,

to the philosophies of life (*Lebensphilosophie*) and the origins of current worldviews (*Weltanschauungen*).³ Finally, the third article focused on three protagonists in the history of 20th-century thought: Freud, Wittgenstein, and Heidegger.⁴ This entire project was undertaken from the perspective of memory as an essential set of abilities and functions of living beings, including humans. However, it is not yet time for us to leave behind the 20th century, if we wish to reach the present day, the 21st century, without considerable shortcuts and gaps. From

Corresponding author: Dr Alberto Rábano Gutiérrez E-mail: arabano@fundacioncien.es

Received: 11 December 2024 / Accepted: 13 March 2025 © 2025 Sociedad Española de Neurología. Open Access CC BY-NC-ND 4.0. a philosophical perspective, at least, something is still lacking before we may conclude this exposition of the antecedents of this extensive research project, this *historiā*, in the Greek of Herodotus and Aristotle.

Once again, this article shall focus on three relevant 20th-century thinkers who are part of the intellectual genealogy that interests us, and on the philosophical currents they represent: Karl Jaspers and existential philosophy (a first approach to the place of clinical psychiatry in our project); Helmuth Plessner and philosophical anthropology; and finally Maurice Merleau-Ponty, a key figure in existential phenomenology and the reflection on corporeality. Otherwise, this article will follow the methodological framework of the previous articles in the series, seeking to serve as a reading guide and brief introduction to these authors and the intellectual currents they represent. For a more exhaustive and canonical discussion of the history of memory as a philosophical or scientific/philosophical problem, several excellent texts have been published more or less recently.5-7

Another point may be noted about the selection of the three thinkers discussed in this article. Each of them is *situated* in a personal (and instructive) way against a fundamental question that runs through this series of articles, addressed in the introductions of each of the previous submissions: the *difference* between the scientific outlook (to borrow B. Russell's classic title⁸) and the philosophical outlook. Let us refer to a text by Jaspers as a first example of this difference:

Having oriented himself on secure dry land—through realistic observation, through the special sciences, through logic and methodology—the philosopher, at the limits of this land, explores the world of ideas over tranquil paths. And now like a butterfly he flutters over the ocean shore, darting out over the water; he spies a ship in which he would like to go on a voyage of discovery, to seek out the one thing which as transcendence is present in his existence. He peers after the ship—the method of philosophical thought and philosophical life—the ship which he sees and yet can never fully reach; and he struggles to reach it, sometimes strangely staggering and reeling.

We are creatures of this sort, and we are lost if we relinquish our orientation to the dry land. But we are not content to remain there. That is why our flutterings are so uncertain and perhaps so absurd to those who sit secure and content on dry land, and

are intelligible only to those who have been seized by the same unrest. ${}^{9(p130-131)}$

The empirical and the speculative, interspersed, as is so apparent in Aristotle, whose texts we shall now, briefly, revisit.

Scholars of Aristotle consider book I of his *De partibus animalium* (*Parts of animals*) to be a lesson on the object and methodology of his biology. According to some of these scholars, such as Pierre Aubenque, the first paragraph of the text that has reached us also contains the keys to understanding broader or global aspects of Aristotle's method and logic, and particularly his dialectic (developed in *Topics*), that is, the way in which inquiry is turned against widely accepted opinions (*endoxa*)^{10(p272)}:

Every study and investigation, the humblest and the noblest alike, seems to admit of two kinds of proficiency; one of which may be properly called educated knowledge of the subject [epistémen tou prágmatos], while the other is a kind of acquaintance with it [paideían tiná]. For an educated man should be able to form a fair judgement [jrinai] as to the goodness or badness of an exposition. 11(p2)

Why does Aristotle establish this distinction?

To be educated [tó pepaidesthai] is in fact to be able to do this; and the man of general education [tón hólos pepaideiménon] we take to be such. It will, however, of course, be understood that we only ascribe universal education to one who in his own individual person is thus able to judge [jritijón] nearly all branches of knowledge, and not to one who has a like ability merely in some special subject [peri tinos physeos aphorisménes].^{11(p2)}

For Aristotle (and this is the key to his dialectic), dialogue between science and the highest general knowledge (education) cannot generate true knowledge; this negative element contributes to the wealth and precision of science, pointing specifically to that which is missing in a given moment. This view of the critical role of philosophy in science is not far removed from J. Habermas' (1929-) proposal, made 50 years ago in his essay "Wozu noch Philosophie?" (Why still philosophy?).¹²

This distinction between science and philosophy is the main *difference* that guides us (and which we shall address in forthcoming articles, along with some *philosophers of difference*, such as Derrida and Deleuze, mentioned previously²); however, as suggested in this text of Aristotle's, we must also consider the difference between

the amateur and the professional, the academic and the non-academic, specialised knowledge and general understanding; these other *differences* are all applicable in various ways to science and philosophy. Who today has the competence and/or the authority (Foucault would say the "power") to speak out about something, to whom must we carefully listen? For now, we shall simply note these open questions, so characteristic of the hyperinformed, liquid world in which we live.¹³

Development

Karl Jaspers: clinical psychiatry and existential philosophy

In a strict sense, existentialism was a philosophical and also a literary and cultural movement that was active mainly during the 1940s and 1950s, and is linked to the works of Jean-Paul Sartre (1905-1980), Maurice Merleau-Ponty (1908-1961), Simone de Beauvoir (1908-1986), and Albert Camus (1913-1960). However, it is part of a broader, more diverse tradition, existential philosophy, in which thinkers were committed to the analysis of existence, understood as humans' way of being in the world.14 Its origins are closely linked to the phenomenology of Edmund Husserl (1859-1938); its antecedents, in the previous century, are the religious thought of Søren Kierkegaard (1813-1855) and the nihilism of Friedrich Nietzsche (1844-1900). Other authors associated with this heterogeneous movement are the early Heidegger (1889-1976), Karl Jaspers (1883-1969), Gabriel Marcel (1889-1973), and Martin Buber (1878-1965). In Spain, we must also remember the singular Christian existentialism of Miguel de Unamuno (1864-1936). Existentialism has been interpreted as a reaction to romanticism¹⁴ or rationalism.¹⁵ Among the common themes developed by existentialist philosophers, we may cite the authenticity of individual life, the meaning (or the absurdity) of existence, the rejection of scientific objectivism, and freedom and responsibility in human decisions. 16 It was Sartre who first used the term "existentialism," and inaugurated the movement (Being and nothingness, 1943), taking as a starting point M. Heidegger's Being and time (1927) and K. Jaspers' *Philosophy* (1932). 16,17

Some of the themes of 20th-century existentialism have reached modern philosophy through the work of such European authors as M. Foucault (1926-1984), J. Derrida (1930-2004), G. Deleuze (1925-1995), and P. Ricoeur (1913-2005), as well as such English-speaking philosophers as Charles Taylor (1931-) and Hubert Dreyfus

(1929-2017). More recent existentialist thought has focused on the animality of human beings and the growing "disenchantment" of the human world (to use the classic term coined by Max Weber) caused by the natural and human sciences in the 21st century. Proponents of neuroexistentialism suggest that after a first (Nietzsche, Kierkegaard, and Dostoevsky) and a second wave (Sartre, Camus, and Simone de Beauvoir) of existentialism, the 21st century is witnessing a third wave derived from the influence of Darwinism and neuroscience on today's culture. 18,19 Man is but another animal and no more than an animal; mind, spirit, or consciousness can be reduced, in one way or another, to neural activity. Neuroexistentialist philosophers, such as Owen Flanagan and Gregg D. Caruso, propose that the meaning of life and the basis for human morality and freedom must be found in a strictly material, physiological context. Facing the same question, the neoexistentialism of M. Gabriel proposes rescuing humanism and the spiritual dimension of humanity through an agnostic perspective based on an ethics of not-knowing, that is, the inability of the sciences to comprehend the human being as a whole (a view shared at other times by Jaspers, Sartre, and Camus, for example). 16,20

Karl Jaspers is not one of the philosophers most frequently visited by historians, and his thought does not form a well-defined doctrine or conceptual system^{16,21}; for him, philosophy was, rather, a permanent search, whose objective (as was also the case for Aristotle) was to achieve the plenitude of human existence. Nonetheless, Jaspers left a personal mark in several intellectual fields, including existential philosophy, clinical psychiatry, and religious and political thought, among others. He was born in 1883 in Oldenburg, in northern Germany (Lower Saxony), into a liberal family that was active in local politics. From childhood, he suffered with bronchiectasis, which considerably limited his physical activity and which some authors suggest may have contributed to his unique perspective of human suffering.²² He initially studied law, with little enthusiasm, in Heidelberg and Munich, later studying medicine in Berlin, Göttingen, and Heidelberg; this training culminated with his thesis "Heimweh und Verbrechen" ("Nostalgia and crime"; 1908). In 1910, he married Gertrude Mayer, of Jewish descent, and later decided to remain in Germany, standing by her when they were both subjected to the harassment of the Nazi regime. From 1909 to 1915, he worked as a research assistant at the University of Heidelberg



Figure 1. Karl Jaspers and his wife Gertrude Mayer in 1911, a year after they married, and the year he began writing his treatise *General psychopathology*. Source: Evangelische Studierendengemeinde Heidelberg [Internet]. Heidelberg (DE): Evangelische Studierendengemeinde Heidelberg; [s.d.]. Karl-Jaspers-Haus; [cited 20 Oct 2024]. Available from: https://www.esg-heidelberg.de/karl-jaspers-haus-2/.

psychiatry clinic, directed by Franz Nissl (1860-1919). His work during that period was relatively independent and unremunerated, allowing him to focus on the patients that most interested him, developing a personal view of psychiatric practice. At that time, he published several articles on mental processes and the development of personality (1910), and on the phenomenological method in psychiatry (1912). In 1911, he was commissioned by the publisher Ferdinand Springer to write an academic textbook on psychiatry, and in 1913 he published his *General psychopathology* (Allgemeine Psychopathologie), which would have a lasting impact on European psychiatry, including in Spain; the fourth edition of the work incorporated some of the author's ideas about existential philosophy.^{23,24} The activities and

publications celebrating the centenary of the first edition of the work are testimony to its continuing relevance.²⁵ Also in 1913, Jaspers began to shift away from psychiatry, joining the psychology department (Faculty of Philosophy) at the University of Heidelberg, eventually becoming professor of philosophy there in 1921 (Figure 1).²⁶⁻²⁸

Jaspers' first major philosophical work, *Psychologie der Weltanschauungen* (*Psychology of worldviews*), was published in 1919. The work heralded several relevant themes in his thought: the limits between science and philosophy, ultimate situations (*Grenzsituationen*), existence as freedom of being in the world, the overlap between the normal and the pathological, the distinction

between true knowledge and instrumental or ideological rationality, and the elevation of consciousness beyond its limits through existential communication with others.²⁹ We should also consider here the *philosophy of limit*, conceived by the Spanish philosopher Eugenio Trías, which is very close to the questions raised by Jaspers.³⁰ Heidegger's harsh critique of Jaspers' text clouded the fruitful friendship between the two,³¹ and the latter could not tolerate Heidegger's collaboration with the Nazi regime in the 1930s. The history of this failed friendship may be followed in the detailed notes that Jaspers made on the subject over the decades.³² Before we continue, we should briefly address in more detail the matter of ultimate situations, which are relevant to our subject of interest, memory:

We call these fundamental situations of our existence ultimate situations. That is to say, they are situations which we cannot evade or change. [...] In our day-to-day lives we often evade them, by closing our eyes and living as if they did not exist. We forget that we must die, forget our guilt, and forget that we are at the mercy of chance. [...] But to ultimate situation we react either by obfuscation or, if we really apprehend them, by despair and rebirth: we become ourselves by a change in our consciousness of being. 9(p20)

Jaspers' existential philosophy is gathered in the three volumes of his work *Philosophy* (1932): I) *Philosophical world orientation*; II) *The illumination of existence*; and III) *Metaphysics*. Each of these is dedicated to one of the existential modalities of human life: 1) orientation (which generates objectively verifiable knowledge), 2) existence (which allows subjective/existential self-reflection), and 3) transcendence (based on the symbolic interpretation of metaphysical content). Here, two key concepts are required to understand the metaphysical dimension of Jaspers' thought: the first of these is *the Comprehensive (das Umgreifende)*: "We call the being that is neither only subject nor only object, that is rather on both sides of the subject-object split, *das Umgreifende*, the Comprehensive." 33(p14)

The second is the idea of the *ciphers of transcendence*, which constitute the absolute limits of human consciousness; they can be found in nature, in art, in religious symbolism, and also in metaphysics. These ciphers, as consciousness of the limit, form a common substrate shared by the different systems of thought, and may serve as a basis for mutual tolerance between people. The

concept of transcendence in Jaspers, which is of Kantian origins, has a clearly religious dimension, which nonetheless opposes all revelatory religion or religious orthodoxy, and shows the influence of Nietzsche, Kierkegaard, and Schelling. For Jaspers, the true philosophy must be guided by a faith in the original transcendence of human existence. "Faith would then be an experience, an experience of the Comprehensive, that either falls to my lot or does not fall to my lot." However, as this transcendence is dependent on reason ("inner experience of the Comprehensive" unlimited communication between humans is needed to reach the truth.

Jaspers' thought also displays an important humanist and political dimension, which colours the intellectual output of his final years. In the 1930s, he had published Spiritual situation of our time (1932) and, after the Second World War, *The question of German guilt* (1946),³⁴ which addressed the moral (active participation) and political responsibility (passive tolerance) of the German people for the crimes of Nazism. In the post-war period, Jaspers played an important role in the de-Nazification and reconstruction of German academia (The idea of a university, 1946). His dedication to history (The origin and goal of history, 1949) led him to define the "Axial Age" (800-200 BCE), which had given rise to the development of the fundamental creations of civilisation. Finally, his pacifist facet is manifested in his work The atom bomb and the future of man (1961). For Jaspers, totalitarianism arises as a consequence of the triumph of technical or instrumental rationality, which must be opposed by free communication between citizens, an unplanned sphere of human interaction. He also defended the importance of cultural tradition, in what he called constitutional patriotism. From 1948, Jaspers was a lecturer at the University of Basel, and he renounced his German citizenship, becoming a Swiss citizen in 1967, after being implicated in various controversies in Germany due to his political and social opinions.

We will not find a theory of memory in Jaspers' oeuvre; that is not the reason for the inclusion of this German philosopher in this *history*. With his open mind and constant search for knowledge, Jaspers represents a complex intersection of the paths of science and philosophy, medicine (psychiatry) and psychology, phenomenology and existential philosophy, existence and transcendence, individual liberty and collective life. His method of reflection follows in the tradition of Kant and Hegel, considering and resolving the antinomies that encapsulate

the *Comprehensive* of human existence. However, it is worthwhile to briefly consider some of his fundamental ideas from the perspective of memory.

In his degree dissertation, "Nostalgia and crime" (1909), Jaspers analyses a series of crimes (arsons and infanticides) committed by adolescent and young adult women separated from their family homes and obliged to work as servants in the homes of others. The idealised memory of their previous lives had given rise to a pathological nostalgia that resulted in violence.³⁵

Before we continue, and following the chronological order of Jaspers' work, it is helpful to address the theoretical and methodological framework that he established during the development of his *General psychopathology*, which may be summarised as follows^{25,36}:

- The critique of biological reductionism in neurology and psychiatry, so characteristic of the period (after Griesinger's maxim that "all mental illness is disease of the brain"); the critique of purely causal explanation as a "brain mythology."
- The consideration of psychiatry, similarly to M. Weber's view of sociology, as a hybrid discipline between science and humanism.
- Approaching psychiatric patients through the understanding/explanation dichotomy proposed by Dilthey³: understanding (*verstehende*) psychology against explicative (*erklärende*) psychology, which, unlike the former, seeks to identify meaning, rather than causes. Empathy and Dilthey's concept of *Erlebnis* as a method of understanding the patient.
- The adoption of Husserl's phenomenology as a method, but limiting it to the interpretation of the patient's subjective symptoms.³⁷

Regarding the reception of *General psychopathology* in Spain, G.E. Berrios recalls that whereas L. Martín-Santos interpreted Jaspers' phenomenology as an "empirical psychology," C. Castilla del Pino considered Jaspers' criteria to overvalue the position of the observer.³⁷

Furthermore, Jaspers' concept of existence, closely linked to the Comprehensive, has one of its roots in memory. Human beings are at once *existence* (living beings), *consciousness* (subject-object dualism), and *spirit* (life of ideas), but also potential *ex-sistence* (*Existenz*); one of its manifestations is "the consciousness of an indefinable memory, as though he shared in the knowledge

of creation (Schelling), or as though he remembered something beheld before any world existed (Plato)."33(p20)

Finally, the importance that Jaspers confers to cultural tradition contains something linking collective memory, in the sense of the term used by M. Halbwachs (1877-1945),⁷ with his own concept of rationality and communication.

Reason enriches man by sharpening his hearing, increases his capacity for communication, makes him capable of change through new experience, but while doing all this it remains essentially one, unswerving in its faith, living in actually efficacious memory of everything that was once real to it. 33(p47)

In national traditions, historical crises can have the same effect over entire generations that ultimate situations have over individual lives, contributing to what is known as "generational memory."³⁸

The philosophical anthropology of Helmuth Plessner

The question of human nature—what is man?—extends through the entire history of Western philosophy, and plays a central role in the thought of, for instance, Descartes, Kant, Hegel, and Nietzsche. According to J. Fischer,³⁹ what defines philosophical anthropology (lower case) as a subdiscipline of philosophy is the self-interpretation of the human being, whereas Philosophical Anthropology (upper case) designates a philosophical movement that arose in Germany in the first half of the 20th century around the question of the special place (Sonderstellung) of humankind in the cosmos and among other living things. This new paradigm took as a reference (critically and reactively, as noted by Habermas) the recent development of the empirical human sciences (biology, psychology, cultural anthropology, and sociology). Its main representatives are Max Scheler (previously discussed in this series of articles in the context of Lebensphilosophy3), Arnold Gehlen, and Helmuth Plessner. All of these proposed a third path, an alternative to Cartesian dualism (matter/spirit, body/ mind), which in the early 20th century had split into two competing paradigms: naturalism (Darwin), on the one hand, and culturalism (Dilthey, and later Foucault), on the other. To that end, each of them elaborated their own philosophy of biology, strongly supported by contemporary biology.^{39,40} Finally, all three had travelled a path (in terms of the specific related sciences) from biology (and paleoanthropology) to sociology. Both Gehlen

and Plessner (like the members of the Frankfurt School) eventually worked for many years as professors of sociology. Though philosophical anthropology as a discipline lost intensity during the latter half of the 20th century,⁴¹ it has been revitalised in the first decades of the 21st century,⁴²⁻⁴⁴ as demonstrated by the work of current philosophers such as M. Gabriel²⁰ and some recent international conferences.

For Scheler, human beings are differentiated from animals as Neinsagenkönner (the one who can say "no"), due to their Weltoffenheit (world-openness), and due to their Gegenstandfähigkeit (the ability to consider things as objects).39 The world-openness of human beings is contrasted with the essential link between all animals and the world around them (Umwelt), as characterised by J. von Uexküll, which determines their circle of life (Lebenskreis). In turn, Gehlen proposes that the rupture of this circle of life in humans is due to their poor morphological specialisation as a result of neoteny (the persistence of fetal or juvenile characteristics in adulthood), which makes the human being a Mängelwesen, a deficient being; and due to the flexibility of their behaviour. The resulting insecurity and vulnerability determine action (Handlung), inherently human, which creates an artificial world (culture) in which language plays a fundamental role, and which is materialised in human institutions.39,45

Helmuth Plessner (1892-1985) was born in Wiesbaden (Germany), to a family of Jewish descent; he studied medicine, and later zoology and philosophy, at the universities of Freiburg, Heidelberg, and Berlin. In 1914, he studied phenomenology with Husserl, and became fascinated by the philosophy of Kant. He earned his doctorate in Erlangen in 1918, and in 1920 received his habilitation degree in philosophy in Cologne, under Max Scheler and Hans Driesch. In 1934, the Nazi regime forbade him from lecturing, and he moved to Groningen (Netherlands) as a guest of the Institute of Physiology (with the help of Frederik J.J. Buytendijk) (Figure 2). In 1942, he was once more banned from teaching by the Nazis, although after the Second World War he occupied the chair of philosophy until 1951, then he returned to Germany to occupy the chair of sociology in Göttingen. In 1962-1963, now an emeritus professor, he taught at the New School for Social Research in New York. 46-48

The first book he published was *The unity of the senses* (1923); however, *Levels of organic life and the human*,

published in 1928, represents his main contribution to philosophical anthropology. Another relevant text is Laughing and crying: a study of the limits of human behavior (1941). Works with a more sociological focus are Limits of society: a critique of social radicalism (1924) and The destiny of the German spirit at the end of its bourgeois epoch (1935).

The concept that best defines the uniqueness of human beings in Plessner's thought is that of excentric positionality. Unlike Heidegger, whose existential analysis of human beings focuses on their temporal finitude (mortality), Plessner focuses primarily on the spatial, or corporeal, finitude of human beings.⁴⁸ All living beings are defined by a spatial boundary (Grenze); unlike with inert objects, that boundary is part of, belongs to, the living being. Plessner defines positionality as the relationship between a living thing and its own boundary. In plants, positionality is open, whereas animals are characterised by closed or centric positionality. The physical centre of an animal is its nervous system. Thus, an animal is differentiated from a plant because it not only has a body, but also is in its body. Human beings, in turn, have a relationship with and are aware of this centre; in consequence, they may be considered to be defined by an excentric positionality. The human being "not only lives (lebt) and experiences (erlebt), but also experiences himself experiencing."49(p271)

In terms of positionality, then, there is a threefold situation: the living thing is body, is in its body (as inner life or psyche), and is outside its body as the point of view from which it is both. An individual characterized positionally by this threefold structure is called a *person*.^{49(p172)}

The human being has a body (*Körper*), and is herself a body (*Leib*). This duality of the body, from which the human being can distance herself thanks to her excentric positionality, has given rise to interesting interpretations of the experiences of neurological patients, and of the current theoretical framework of neuroscience.^{50,51} It has been suggested that in patients implanted with deep brain stimulators to treat Parkinson's disease, for instance, fine-tuning or temporary disconnection of the device may modulate the patient's perception of their own corporeal excentric positionality.⁵²

Excentric positionality displaces the human being from equilibrium with his surroundings (in which the human becomes a *world*) and his own nature, making him



Figure 2. Helmuth Plessner (seated at the head of the table) during one of his classes at the University of Groningen in the 1930s. Source: University of Groningen Library [Internet]. Groningen (NL): University of Groningen; [s.d.]. Helmuth Plessner made philosophy out of his own life story; 12 Jun 2025 [cited 20 Oct 2024]. Available from: https://www.rug.nl/library/gauronica/blogposts/plessner?lang=en

deficient, homeless (*heimatlos*). The human will to become something, to create one's own equilibrium, gives rise to culture and technology. Plessner defines this process through three anthropological laws:

- 1. The law of natural artificiality, according to which humans are artificial by nature. Technological and cultural elements, created in response to man's ontic necessity⁴⁸ to become himself, end up becoming part of his body schema and cognitive structure. This is true both of natural language and of the technologies that broaden our motor, sensory, and cognitive capacities.
- 2. The law of mediated immediacy, which characterises the relative independence of human cultural
- creations. "The human can only invent to the extent that he discovers." An essential feature of characteristically human action is expressivity, which includes language. "The expressivity of the human thus makes him a being who even in the case of continuously sustained intention continues to push for ever *new* realizations and in this way leaves behind a *history*. Expressivity is the only internal reason for the historical character of his existence." The true motor of the specifically historical dynamism of human life is to be found in expressivity."
- The law of the utopian standpoint, which explains the need for transcendence and religiosity as a consequence of the constitutive homelessness of the

human being. Facing the contingency of existence, "only religion provides the ultimate bond and integration, the place to live and the place to die, security, reconciliation with fate, interpretation of reality, a home." ^{49(p317)}

Following Driesch, Plessner interprets memory (the capacity to "correct responses as a result of the past") as the "historically created basis of acting." 49(p258) Thus, memory serves action, its anticipation, providing levels of variability and freedom to achieve its potentialities. Memory is exclusive to the animal, the "living being organized in a closed way,"49(p260) or central positionality, and does not occur in plants. In the course of each action, the nervous system analytically filters the experience, breaking it down into its fundamental elements, and thus puts it (not in the form of a complete, faithful recording, like that made by gramophone), through its different possible combinations, at the service of new future actions, consciously or unconsciously. "[...] What encounters the living being can become sedimented into memory only by way of its futurity [...]."49(p264)

Maurice Merleau-Ponty and existential phenomenology

Merleau-Ponty is a key figure in the genealogy of the small group of thinkers, mainly in the French, German, and Italian settings, who are our references on the philosophical side of our analysis of memory in the 21st century. He was part of the generation that dominated French philosophy in the post-war period, alongside Jean-Paul Sartre, Simone de Beauvoir, and Claude Lévi-Strauss (1908-2009), and played a key role in creating the subsequent (post-structuralist) generation of philosophers, which included Michel Foucault, Gilles Deleuze, and Jacques Derrida, among others (Figure 3). Maurice Merleau-Ponty was born in 1908 in Rochefort-sur-Mer, and showed a strong early calling for philosophy. He studied philosophy at the École Normale Supérieure (1926-1930), and his complementary thesis (thèse mineure), which represents his first relevant text, was published in 1942 under the title "The structure of behaviour." He participated in the Second World War as an infantry soldier, and was wounded in June 1940. In 1945, he completed and published his main doctoral thesis (thèse majeure), "Phenomenology of perception," and worked for some years as a secondary school philosophy teacher and a lecturer of psychology and philosophy (Universities of Lyon and Paris, École Normale Supérieure). In 1952, he was selected for the chair of philosophy at Collège de France (his inaugural lecture of 1953 was published under the title "In praise of philosophy").

The philosophical life of Merleau-Ponty, like that of other members of his generation, was marked by a commitment to politics. In 1945, he founded Les Temps Modernes alongside Sartre and de Beauvoir, and was the journal's political editor until his resignation in 1952 due to disagreements with Sartre about the Korean War. We can follow the evolution of his political thought from Humanism and terror (1947) to Adventures of the dialectic (1953). In 1957, he turned down the National Order of the Legion of Honour due to the use of torture by the French Fourth Republic during the Battle of Algiers. His final publication was Signs (1960), a collection of essays on art, literature, philosophy, and politics. A considerable body of his philosophical work was published posthumously, with important examples being The prose of the world, on literature and artistic expression, and The visible and the invisible (1968), an unfinished text that contains the most mature version of Merleau-Ponty's philosophy (and in particular his ontology).^{53,54}

In *The structure of behaviour*, Merleau-Ponty addresses the perception and behaviour of living beings from a perspective that brings together the findings of Gestalt psychology, the observations of Kurt Goldstein in patients with brain damage, and the phenomenology of Husserl. To achieve this, he develops a classical phenomenological critique of reflexological psychology, seeking to avoid both an intellectualist (neokantian) interpretation and a mechanistic, empiricist interpretation of the experimental findings (part II of this series³ includes a brief review of the debate around mechanicism in the early 20th century; I also recommend G. Canguilhem's⁵⁵ excellent analysis of the concept of reflexes from his own moderate vitalism).

Thus, with the notion of "form," we have found the means of avoiding the classical antitheses in the analysis of the "central sector" of behavior as well as in that of its visible manifestations. More generally, this notion saves us from the alternative of a philosophy which juxtaposes externally associated terms and of another philosophy which discovers relations which are intrinsic to thought in all phenomena. ^{56(p127)}

Merleau-Ponty understands the activity of the nervous system as a field of forces with its own form or structure, whose dynamic is dialectical (not mechanical or linear). This is a gestalt, holistic structure, like that which, with successive levels of integration, characterises matter, life, and mind. Thus, the French philosopher proposes a three-fold classification of behaviour: 1) syncretic, instinctive behaviours, dominated by the a priori of the species; 2) amovable behaviours, which may lead to genuine learning; and 3) symbolic behaviour, characteristic of human beings, which is open to virtual, expressive, and recursive relationships between structures. The structure of behaviour concludes by proposing a more specific, deeper study of perceptual consciousness as a type of original experience; this is the task that Merleau-Ponty sets himself in Phenomenology of perception.

From this fundamental work by the French philosopher, we may briefly highlight a first pair of intertwined concepts: body and world. Assuming once again a phenomenological perspective (closer to the existential phenomenology of Heidegger than to Husserl's transcendental phenomenology),⁵⁷ Merleau-Ponty critiques both intellectualist and empiricist interpretations of the body (Cartesian dualism). This critique is largely based on clinical analyses of traumatic injuries from patients wounded in the First World War (K. Goldstein), and phenomena including phantom limbs, anosognosia, and cortical blindness. According to Merleau-Ponty, these types of phenomena do not have a purely physiological or psychological explanation, and must be understood "in the perspective of being-in-the-world." ^{58(p94)} The refusal of the mutilation (phantom limb) or the deficit (anosognosia) is the reverse of our deep connection with the world, of the projects that make up our body in its totality and integrity. Like all phenomenological perspectives (eg, Husserl, Heidegger, and Sartre), the inquiring, reflecting subject is included and questioned in their own analysis: "I cannot understand the function of the living body except by enacting it myself, and except in so far as I am a body which rises towards the world."58(p87)

The body is neither subject (for itself) nor object (in itself), but rather (pre-reflective) experience, with its own space (body schema) and situated in the world (situational spatiality of the body, linked to action, as opposed to the positional spatiality of objects). The spatiality of the body is a (pre-objective) condition of the spatial perception of objects. Sexuality and language are also part of our body's pre-cognitive, intentional encounter with our own world and with the world we share with other human beings. The body has a temporal orientation in the world, which implies a dialectical relationship between



Figure 3. Maurice Merleau-Ponty.

the current body and the habit body, that is, a sedimentation of past bodily activities.

This characteristic form of existence of the body is called being-in-the-world. The world is what is shown in perception; however, this does not imply the passive reception and representation of the world by an abstract, ideal consciousness, but rather the coincidence and the coexistence of a given body and world. Perceptual consciousness reveals the consciousness of the body. The objectivity, spatiality, temporality, and movement that define the world are inseparable from the structure and the activity of the body. This coincidence of body and world in a primordial setting also applies to affectivity and the recognition of others as body-worlds equivalent to ourselves (intercorporeality).

Merleau-Ponty's philosophy of the lived body was further developed, elaborated upon, in the enactivism of Humberto Maturana (1928-2021) and Francisco Varela (1946-2001), and particularly in Varela's neurophenomenology framework. These perspectives will be addressed in greater detail in a future article.⁵⁹

Merleau-Ponty does not propose an original concept of time⁵⁶; rather, in dialogue with Husserl and Heidegger, he reinterprets the temporality of being in terms of the body-world axis.^{58(p476 et seq)} We will return to this subject shortly to address the concept of memory. "We are not in some incomprehensible way an activity joined to a passivity, an automatism surmounted by a will, a perception surmounted by a judgement, but wholly active and wholly passive, because we are the upsurge of time."^{58(p497)}

In *The visible and the invisible*, Merleau-Ponty follows his previous approach to its ultimate conclusions, moving beyond his confrontation with scientific evidence.⁵⁷ This gives rise to two original concepts, *flesh* and *chiasm*. If my hand can touch some object and at once be touched by my other hand, if I am at once (alternatively, or as the philosopher suggests, paradoxically) tangible (world) and the touching subject (body), visible and seeing, then that general tangibility and visibility reveal a primordial element common to the world and to myself—Merleau-Ponty names this "element" *flesh*:

The flesh is not matter, is not mind, is not substance. To designate it, we should need the old term "element," in the sense it was used to speak of water, air, earth, and fire, that is, in the sense of a *general thing*, midway between the spatio-temporal individual and the idea, a sort of incarnate principle that brings a style of being wherever there is a fragment of being. The flesh is in this sense an "element" of Being. ^{60(p139)}

This interweaving of body and world in the flesh, and of different worlds with one another (my hand can both touch and be touched by another person), in an intercorporeal relation,⁶¹ is what Merleau-Ponty refers to as *chiasme*, which brings together the (biological, anatomical) concept chiasm and the (linguistic, rhetorical) concept chiasmus.

As noted by D.F. Krell, Merleau-Ponty's analysis of memory meets the classic problem, already considered by Plato and Aristotle, of the *presence* of the past, formulated as follows by Sartre in *Being and nothingness*: "What is the *being* of a past being?" If the mnemic impression (engram) is always part of the current body, then how can it point to "the event there where *it* was"?^{63(p160-161)} For

Merleau-Ponty, the key to unravelling this problem lies, once more, in memory:

It is at this stage that the real problem of memory in perception arises, in association with the general problem of perceptual consciousness. We want to know how, by its own vitality, and without carrying complementary material into a mythical unconscious, consciousness can, in course of time, modify the structure of its surroundings; how, at every moment, its former experience is present to it in the form of a horizon which it can reopen—"if it chooses to take that horizon as a theme of knowledge"—in an act of recollection, but which it can equally leave on the fringe of experience, and which then immediately provides the perceived with a present atmosphere and significance.^{58(p25)}

However, this opening of the horizon of the past does not so much relate to perceptual consciousness as to the body, our "anchorage in the world." 62(p94)

The part played by the body in memory is comprehensible only if memory is, not only the constituting consciousness of the past, but an effort to reopen time on the basis of the implications contained in the present, and if the body, as our permanent means of "taking up attitudes" and thus constructing pseudopresents, is the medium of our communication with time as well as with space. ^{58(p210)}

Thus, the notion of body memory in Merleau-Ponty largely corresponds to what we understand today as implicit memory. Thus, operative intentionality, a concept taken from Husserl (the threads of intentionality that tie a body to the world), contributes to the creation of the habitual body, as the basis of the body's being-towardsthe-world.⁶⁴ Body memory, then, is not an image that represents the past, but rather resembles an actor, enacting the past in a performative manner. What we may consider a physiological or psychological "trace" of the past (engram) first requires a "sense of the past" in order to be interpreted as past; we find a similar state of affairs for our anticipation of the future ("sense of the future"). Merleau-Ponty recurs, to that end, to a spatial, quasi-anatomical metaphor, the hollow, fold, or invagination (creux) with which the body is able to regard past and present. According to Deleuze, where Sartre had found a hole in the being (nothingness), Merleau-Ponty placed a fold.⁶¹ This concept would later be further explored by other philosophers, including M. Foucault and Deleuze himself.

Merleau-Ponty's later reflections on memory are framed within what he referred to as the "problem of passivity," which he had previously raised in *Phenomenology of perception*, in dialogue with Husserl and Heidegger. Passivity is, paradoxically, the spontaneity acquired from our existence, and is manifested in dreams, in the unconscious, and in memory. Merleau-Ponty discusses this idea in his 1954-1955 course at the Collège de France, in what may be his most synthetic, mature view of memory and its relationship with time and body.

The problem of memory remains a dead end as long as one hesitates between the conceptions of memory as conservation and memory as construction. It is always possible to show that consciousness only finds in its "representations" what it has put into them, and thus that memory is construction—and that nevertheless another memory behind the latter is needed to measure the value of its creations, in other words, a past given gratuitously and in a way quite opposite to the operation of memory as construction. ^{65(p50-51)}

The two perspectives can only be reconciled if, instead of posing the problem in terms of representation, we define a situational viewpoint, in the same way that the body is situated at each point in space and time.

[...] Then there would be no question of any alternative between conservation and construction; memory would not be the opposite of forgetfulness, and it might be seen that true memory is to be found at the intersection of the two, the moment where memory forgotten and kept by forgetfulness returns. It might then be clear that forgetfulness and memory recalled are two modes of our oblique relation with a past that is present to us only through the determinate void that it leaves in us.^{65(p51)}

Once more, we face a hole, a cavity, an invagination in the body situated in the world. Merleau-Ponty does not offer a solution to the problem of memory, but suggests a new way of understanding it, a new dialectic for analysing recall and forgetfulness, past and present, absence and presence, as the activity of a living and lived body.

Conclusions

With Jaspers, Plessner, and Merleau-Ponty, even more so than the previously studied authors (perhaps with the partial, transient exception of Freud), we have approached empirical and clinical neuroscience as a framework and a necessary limit of philosophical inquiry. Thus, it is time for us to address this framework through its evolution and development over the second half of the 20th century. That undertaking, in the field of the study of memory, will be the subject of the next article in this series.

Conflicts of interest

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References

- 1. Machado M, Machado A. Obras completas. Madrid: Biblioteca Nueva; 1984.
- 2. Rábano Gutiérrez A. Ciencia y filosofía de la memoria en el siglo XXI. (1) Una aproximación hermenéutica. Neurosci Hist. 2021;9(2):83-92.
- 3. Rábano Gutiérrez A. Ciencia y filosofía de la memoria en el siglo XXI. (2) Antecedentes: controversias científico-filosóficas en los inicios del siglo XX. Neurosci Hist. 2023;11(1):22-32.
- Rábano Gutiérrez A. Ciencia y filosofía de la memoria en el siglo XXI. (3) Antecedentes (II): tres fundadores: Freud, Wittgenstein y Heidegger. Neurosci Hist. 2024;12(2):105-16.
- Berrios GE. Historical aspects of memory and its disorders.
 In: Berrios GE, Hodges JR, eds. Memory disorders in psychiatric practice. Cambridge: Cambridge University Press; 2000.
- 6. Radstone S, Schwarz B, eds. Memory: histories, theories, debates. New York: Fordham University Press; 2010.
- 7. Bernecker S, Michaelian K, eds. The Routledge handbook of philosophy of memory. New York: Routledge; 2017.
- 8. Russell B. La perspectiva científica. Barcelona: Ariel; 1975.
- Jaspers K. La filosofía desde el punto de vista de la existencia. Gaos J, transl. Mexico City: Fondo de Cultura Económica; 1970. [Jaspers K. Way to wisdom. An introduction to philosophy. Manheim R, transl. New Haven (CT): Yale University Press; 1954].
- Aubenque P. El problema del ser en Aristóteles. Madrid: Taurus; 1987.
- 11. Aristóteles. Partes de los animales. Marcha de los animales. Movimiento de los animales. Jiménez Sánchez-Escariche E, Alonso Miguel A, transl. Madrid: Gredos; 2000. [Aristotle. Parts of animals. In: Barnes J, ed. The complete works of Aristotle. Princeton (NJ): Princeton University Press; 1991].
- 12. Habermas J. ¿Para qué aún filosofía? Teorema: Revista Internacional de Filosofía. 1975;5(2):189-212.
- 13. Bauman Z. Liquid modernity. Cambridge: Polity; 2000.
- 14. Abbagnano N. Diccionario de filosofía. Mexico City: Fondo de Cultura Económica; 1991.
- 15. Roubiczek P. El existencialismo. Barcelona: Labor; 1974.

- 16. The Stanford Encyclopedia of Philosophy Archive [Internet]. [Stanford]: Stanford University; ©2023. Existentialism; 6 Jan 2026 [cited 20 Oct 2024]. Available from: https://plato.stanford.edu/archives/sum2023/entries/existentialism/.
- 17. D'Agostini F. Analíticos y continentales. Madrid: Cátedra; 2018.
- 18. Flanagan O, Barack D. Neuroexistentialism. Euramerica. 2010;40(3):573-90.
- Flanagan O, Caruso GD. Neuroexistentialism: thirdwave existentialism. In: Caruso GD, Flanagan O, eds. Neuroexistentialism: meaning, morals, and purpose in the age of neuroscience. New York: Oxford University Press; 2017.
- 20. Gabriel M. El ser humano como animal. Barcelona: Pasado y Presente; 2023.
- 21. Casewell D. Forgotten existentialist. AEON [Internet]. 19 Jan 2023 [cited 20 Oct 2024]. Available from: https://aeon.co/essays/karl-jaspers-the-forgotten-father-of-existentialism
- 22. Grijalba Uche M. Karl Jaspers: pensamiento desde la enfermedad. In: Romero Martín F, Santamaría Santiago M, coords. Alrededor de la psique: reflexiones filosóficas sobre la psicopatología y su historia. Granada (ES): Editorial Universidad de Granada; 2024. p. 69-88.
- 23. Bormuth M. Freedom and mystery: an intellectual history of Jasper's General psychopathology. Psychopathology. 2013;46(5):281-8.
- Castilla del Pino C. Historia crítica de la psiquiatría en el siglo XX. Una mirada biográfica. Rev Asoc Esp Neuropsiq. 2007;XXVII (99):105-18.
- 25. Fuchs T, Breyer T, Mundt C, eds. Karl Jaspers' philosophy and psychopathology. New York: Springer; 2014.
- 26. The Stanford Encyclopedia of Philosophy Archive [Internet]. [Stanford]: Stanford University; ©2023. Karl Jaspers; 5 Jun 2006 [cited 20 Oct 2024]. Available from: https://plato.stanford.edu/archives/sum2024/entries/jaspers/.
- 27. Gibbons MT, ed. The encyclopedia of political thought. Malden (MA): Wiley Blackwell; 2015. Thornhill C. Jaspers, Karl (1883-1969); p. 1-2.
- 28. Britannica. Chicago: Encyclopædia Britannica; ©2025. Karl Jaspers; [cited 20 Oct 2024]. Available from: https://www.britannica.com/biography/Karl-Jaspers
- 29. Jaspers K. Psicología de las concepciones del mundo. Madrid: Gredos; 1967.
- 30. Holzapfel C. El ser humano de cara al límite. Byzantion nea Hellás. 2019(38):291-309.
- 31. Heidegger M. Hitos. Madrid: Alianza Editorial; 2018. Anotaciones a la Psicología de las visiones del mundo de Karl Jaspers (1919-1921); p. 15-47.
- 32. Jaspers K. Notas sobre Heidegger. Madrid: Mondadori; 1990.
- Jaspers K. La fe filosófica. Rovira Armengol J, transl. Buenos Aires: Losada; 2003. [Jaspers K. The perennial scope of philosophy. Manheim R, transl. London: Routledge & Kegan Paul Ltd.; 1950].

- 34. Jaspers K. El problema de la culpa. Barcelona: Paidós; 1998.
- 35. Bronfen E. The knotted subject: hysteria and its discontents. Princeton (NJ): Princeton University Press; 1998.
- 36. Fulford KWM, Thornton T, Graham G, eds. Oxford textbook of philosophy and psychiatry. Oxford: Oxford University Press; 2006.
- 37. Berrios GE. Phenomenology, psychopathology and Jaspers: a conceptual history. Hist Psychiatry. 1992 Sep;3(11):303-27.
- 38. Wydra H. Generations of memory: elements of a conceptual framework. Comparative Studies in Society and History. 2018;60(1):5-34.
- 39. Fischer J. Exploring the core identity of philosophical anthropology through the works of Max Scheler, Helmuth Plessner, and Arnold Gehlen. Iris: European Journal of Philosophy and Public Debate. 2009;1(1):153-70.
- Fischer J. Philosophical anthropology. A third way between Darwinism and Foucaultism. In: De Mul J, ed. Plessner's philosophical anthropology. Perspectives and prospects. Amsterdam: Amsterdam University Press; 2014. p. 41-55.
- 41. Borsari A. Notes on "philosophical anthropology" in Germany. An introduction. Iris: European Journal of Philosophy and Public Debate. 2009;1(1):113-129.
- 42. International Conference: Philosophical Anthropology and Evolutionary Biology: historical context and current debates. Bordeaux: Bordeaux University; 2023. 4 p. Available from: https://www.mshbx.fr/wp-content/uploads/2023/11/Programme_Anthropologie.pdf
- 43. PhilEvents [Internet]. [s.l.]: The PhilPapers Foundation; ©2025. Philosophical anthropology and biology: between history and evolution; [cited 20 Oct 2024]. Available from: https://philevents.org/event/show/120914
- 44. De Mul J, ed. Plessner's philosophical anthropology: perspectives and prospects. Amsterdam: Amsterdam University Press; 2014.
- 45. Magerski C. Gehlen, Arnold Karl Franz (1904-1976). In: Bloomsbury Encyclopedia of Philosophers. London: Bloomsbury; 2020.
- 46. Encyclopedia.com [Internet]. [s.l.]: Encyclopedia.com; ©2019. Plessner, Helmut (1892-1985); [cited 20 Oct 2024]. Availablefrom:https://www.encyclopedia.com/humanities/encyclopedias-almanacs-transcripts-and-maps/plessner-helmut-1892-1985
- 47. Britannica. Chicago: Encyclopædia Britannica; ©2025. Helmuth Plessner; [cited 20 Oct 2024]. Available from: https://www.britannica.com/biography/Helmuth-Plessner
- 48. De Mul J. Artificial by nature. An introduction to Plessner's philosophical anthropology. In: De Mul J, ed. Plessner's philosophical anthropology. Perspectives and prospects. Amsterdam: Amsterdam University Press; 2014. p. 11-37.
- 49. Plessner H. Los grados de lo orgánico y el hombre. Introducción a la antropología filosófica. Hernández Cuesta J, transl. Granada (ES): Editorial Universidad de Granada; 2022. [Plessner H. Levels of organic life and the human. An introduction to philosophical anthropology. Hyatt M, transl. New York: Fordham University Press; 2019].

- 50. Lindemann G. The brain in the vat as the epistemic object of neurobiology. In: De Mul J, ed. Plessner's philosophical anthropology. Perspectives and prospects. Amsterdam: Amsterdam University Press; 2014. p. 335-355.
- 51. Pott HJ. On humor and "laughing" rats. The importance of Plessner for affective neuroscience. In: De Mul J, ed. Plessner's philosophical anthropology. Perspectives and prospects. Amsterdam: Amsterdam University Press; 2014. p. 375-386.
- 52. Hätscher J. Switching "On", switching "Off". Does neurosurgery in Parkinson's disease create man-machines? In: De Mul J, ed. Plessner's philosophical anthropology. Perspectives and prospects. Amsterdam: Amsterdam University Press; 2014. p. 357-373.
- 53. The Stanford Encyclopedia of Philosophy Archive [Internet]. [Stanford]: Stanford University; ©2023. Maurice Merleau-Ponty; 14 Sep 2016 [cited 20 Oct 2024]. Available from: https://plato.stanford.edu/archives/win2023/entries/merleau-ponty/.
- 54. Internet Encyclopedia of Philosophy [Internet]. [s.l.]: Internet Encyclopedia of Philosophy; [s.d]. Maurice Merleau-Ponty (1908-1961); [cited 20 Oct 2024]. Available from: https://iep.utm.edu/merleau/.
- 55. Canguilhem C. Estudios de historia y de filosofía de las ciencias. Buenos Aires: Amorrortu; 2009.
- 56. Merleau-Ponty M. La structure du comportement [Internet]. 6th ed. Paris: Les Presses Universitaires de France; 1967 [cited 20 Oct 2024]. Available from: https://classiques.uqam.ca/classiques/merleau_ponty_maurice/structure_comportement/structure_comportement.html. [Merleau-Ponty M. The structure of behavior. Fisher AL, transl. Boston (MA): Beacon Press; 1963].

- Macann C. Four phenomenological philosophers: Husserl, Heidegger, Sartre, Merleau-Ponty. New York: Routledge; 2005.
- 58. Merleau-Ponty M. Fenomenología de la percepción. Cabanes J, transl. Barcelona: Planeta-Agostini; 1994. [Merleau-Ponty M. Phenomenology of perception. Smith C., transl. London: Routledge Classics; 2002].
- 59. Berkovich-Ohana A, Dor-Ziderman Y, Trautwein FM, Schweitzer Y, Nave O, Fulder S, Ataria Y. The hitchhiker's guide to neurophenomenology The case of studying self boundaries with meditators. Front Psychol. 2020;11:1680. doi:10.3389/fpsyg.2020.01680.
- 60. Merleau-Ponty M. Lo visible y lo invisible. Consigli E, Capdevielle B, transl. Buenos Aires: Nueva Visión; 2010. [Merleau-Ponty M. The visible and the invisible. Lingis A, transl. Evanston (IL): Northwestern University Press; 1968].
- 61. Garcés M. Filosofía inacabada. Barcelona: Galaxia Gutenberg; 2018.
- 62. Krell DF. Of memory, reminiscence, and writing. On the verge. Bloomington (IN): Indiana University Press; 1990.
- 63. Sartre J-P. El ser y la nada. Valmar J, transl. Madrid: Alianza; 1984. [Sartre J-P. Being and nothingness. Barnes HE, transl. New York: Washington Square Press; 1956].
- 64. Fuchs T. The phenomenology of body memory. In: Koch SC, Fuchs T, Summa M, Müller C, eds. Body memory, metaphor and movement. Amsterdam: John Benjamins; 2012. p. 9-22.
- 65. Merleau-Ponty M. Posibilidad de la filosofía. Resúmenes de los cursos del Collège de France, 1952-1960. Bello Reguera E, transl. Madrid: Narcea; 1979. [Merleau-Ponty M. Themes from the lectures at Collège de France 1952-1960. O'Neill J, transl. Evanston (IL): Northwestern University Press; 1970].