Transcendental Phenomenology of Dementia. A 'Mutual Enlightenment' Concrete Proposition

Federico Carlassara[*]
federico.carlassara@hotmail.com

ABSTRACT

This contribution aims to be a concrete proof of how fertile, rich and innovative dialogue and confrontation between transcendental phenomenology and naturalising sciences can be. Through the phenomenological-transcendental analysis of the neurodegenerative pathology of dementia, an attempt will be made to propose, within the debate on the possible naturalisation of phenomenology, the perspective of an actual *mutual enlightenment*, as proposed by Gallagher. Not a naturalisation of consciousness in the sense of a reduction to neural process, but a pluralisation of the valid and rigorous perspectives through which it can be investigated. The phenomenological-transcendental eidetic study of dementia thus becomes complementary to the neurobiological one, revealing what the subject feels 'from within', his losses, but also what persists in the patient until the most advanced stages. Such a study, in synergy with the biological one, would greatly help in the holistic understanding of dementia in this particular case and, in general, of consciousness phenomena.

1. Introduction

In the famous introduction to the 1999 volume *Naturalizing Phenomenology*, a general disillusionment with the human sciences and their meagre progress, in contrast to the «breathtaking achievements»[1] of the natural sciences, is noted with regard to the study of consciousness. Above all, it calls for a «truly scientific investigation»[2] of consciousness phenomena, implying a clear and unbridgeable epistemological disparity between the natural sciences and other disciplines. Of

[*] Università degli Studi di Torino, Italy.

[1] Petitot, J., Varela, F. J., Pachoud, B. and Roy, J. M. (1999), *Naturalizing Phenomenology: Issues In Contemporary Phenomenology and Cognitive Science*. Stanford: Stanford University Press, p. 2.

[2] *Ibidem*.

particular interest for the present study is the following passage, within the subchapter *The claim for a naturalised phenomenology*: «a naturalised phenomenology [...] the general project of introducing a phenomenological level of investigation into the naturalist framework of the sciences of cognition»[3]. In this brief passage, we concentrate on an assumption common to the various attempts (of which we do not intend to give an exhaustive list here) to naturalise phenomenology: that it is phenomenology that must fit into a methodological-epistemological framework typical of the natural sciences and that, on this condition, it can integrate them. Naturalising, therefore, would mean «integrating into an explanatory framework where every acceptable property is made continuous with the properties admitted by the natural sciences»[4] and ultimately bridging the gap that divides the experience of the life of qualitative consciousness and from a first-person perspective from an explanation through physical processes of a neurophysiological nature (Dreske, F., 1997, Edelman, G.M., 2003, 2011).

The present contribution aims to concretely demonstrate how the naturalisation of phenomenology in the sense outlined above is not the only possible perspective, nor the least problematic one, due above all to the substantial and inescapable epistemological discontinuity between phenomenology and what Husserl called empirical psychology (which today we might subsume under the heading of neuroscience and cognitive science), i.e. the radical difference in the nature of the objects of investigation. In *Philosophy as Rigorous Science*, Husserl asserts the need for another kind of inquiry than that of the natural sciences, a «completely different critique of experience»[5]: a «phenomenology of consciousness»[6] that is eminently philosophical, that is, that uses its own rigorous methods (different from the scientific method, but no less valid for that) and that is with the sciences themselves in constant and fertile dialogue. The scientific method used by the quantitative sciences of nature and the descriptive sciences has proved, ever since Galileo, to be a sure and fruitful guide to their progress. However, it would be a mistake to try to extend and apply it to any question concerning existence. To investigate consciousness or, said in the typical lexicon of phenomenology, 'pure immanence' solely and only through a quanti-

[3] Ivi, p. 20.
[4] Ivi, pp. 1-2.
[5] Husserl, E. (1965). *Phenomenology and the Crisis of Philosophy*. Trans. Q. Lauer. New York: Harper and Row, p. 87.
[6] Ivi, p. 91.

tative method would be one-sided, to say the least. The method peculiar to phenomenological investigations is what Husserl calls «essential intuition»[7] (*Wesenschauung*).

> When we bring "color" to full intuitive clarity, to givenness for ourselves, then the datum is an "essence"; and when we likewise in pure intuition – looking, say, at one perception after another – bring to givenness for ourselves what "perception" is, perception in itself (this identical character of any number of flowing singular perceptions), then we have intuitively grasped the essence of perception. That the "essence" grasped in essential intuition permit [...] of being fixed in definitive concepts and thereby afford possibilities of definitive and in their own way absolutely valid objective statements, is evident to anyone free of prejudice.[8]

This is, for Husserl, the highroad that can lead to an analysis of consciential phenomena in a rigorous way, arriving at universally valid results. The essential intuition is an intuiting and grasping of the most general and necessary features of a phenomenon, those characteristics that make a certain entity such and without which one could no longer speak of that entity.

The perspective to be put forward here is therefore that of a *mutual enlightenment* (Gallagher, S., 1997) between the transcendental and the empirical; a naturalisation of phenomenology and, at the same time, a 'transcendentalisation' of the empirical sciences, in the form of exchange and mutual collaboration (Zahavi, D., 2010). The mutual enlightenment will be concretely defended through the transcendental study of dementia. After a brief empirical description of the disease, the transcendental elements that can describe it from the perspective of subjective-conscious experience will be introduced and a transcendental interpretation of the disease will be given, through the progressive redefinition of the loss of the self, the distorted time and the altered memory in dementia.

2. Dementia

The year is 1901. At the asylum in Frankfurt am Main, a 50-year-old patient, Auguste Deter, who has long suffered from heavy and disabling cognitive disorders, is interned. Receiving her and taking charge of her case is the head of the

[7] Ivi, p. 110.
[8] Ivi, pp. 110-111.

department, a promising and multifaceted anatomopathologist: Alois Alzheimer. The patient, unfortunately, dies five years later, and her brain is sent to Alzheimer – who, in the meantime, had moved to München – to attest to whether or not there were changes in the patient's brain, whose official diagnosis was that of dementia. The examination of the brain does indeed show an abnormality, namely a set of tangles. In the future, they would be called amyloid plaques and would long be thought to be the direct cause of what was called *Alzheimersche Krankheit* (Alzheimer's disease) from 1910 onward. Dementia, of which Alzheimer's is one among several types, is a pathological cognitive and mental impairment: it mostly affects memory and its etiology is to be traced to anatomical changes in the brain – not only the famous amyloid plaques: the most recent research shows that these are also present in healthy people and this should lead us to consider the disease much more multifactorial than has always been assumed (Sturchio, Dwivedi, Malm, Wood, Cilia, Sharma, Hill, Schneider, Graff-Radford, Mori, Nübling, El Andaloussi, Svenningsson, Ezzat, 2022).

The main target the disease rails against – and the one of greatest interest in the present research – is *memory*. Often, the first to be affected is the so-called *short-term memory*. The sufferer does not remember information and actions that he has recently acquired or performed. He may forget appointments or ask questions repetitively. In the early stages of the disease, however, long-term memory seems to endure. In describing the progression of the disease, reference is usually made to the Global Deterioration Scale (Reisberg et al., 1982), which proposes as many as six stages through which the disease would develop. In the early stages, cognitive impairment is still mild and not highly impactful. To monitor its progress, patients still able to respond are asked if they remember the most recent events that happened to them, the date of the day they were in or the name of their neighbor. From stage four, symptomatology undergoes a marked worsening. *Long-term memory* also begins to be impaired, the names and faces of lifelong family members and friends are no longer remembered, and key events in one's life begin to take on blurred contours. The fabric of one's past existence becomes disorganized and chaotic. Worsening is inevitable, though not always sudden, until the onset of death.

Whether due to the appearance of amyloid plaques, brain lesions of vascular nature, or generalized neuroinflammation, some areas of the brain are damaged in any case. Contemporary neurology has identified the hippocampus (a fold of the brain in the temporal lobe) as the center of present time and the just-past, while the frontal and temporal lobes would be responsible for long-

term memory, thus the distant past. In this way, a true temporal map was as if drawn within the anatomy of the brain.

Alois Alzheimer, however, was not the first to ponder such questions. The father of neurological time studies was undoubtedly Hermann von Helmoltz who, through experiments on the muscular reaction to a stimulus in frogs, asserted in the mid-18th century that the center of time should be in the brain. However, contemporary neurology often forgets that Helmoltz was a great admirer of the father of transcendental philosophy, Immanuel Kant. Helmoltz, who had read voraciously the pages of the *Kritik der reinen Vernunft*, attempted to "physiologize" the Kantian *a priori*; by locating the sense of time in the brain, he achieved his goal by embodying the transcendental pure form and *a priori* of time in a specific organ. As the contribution hopes to show, the fertile alliance between neurological sciences and transcendental reflection, which had found a happy prelude in the figure of Helmoltz, remains full of potential and with promising contemporary and future prospects.

The biomedical literature on dementias often tends to focus on the loss of the self, on the irreversibility of memory impairment and, in general, on the tragic nature of the disease, contributing, on the whole, to burden the contemporary debate with a disheartening, dramatic and disillusioning aura (Cohen, D., 1986, Charmaz, K., 1987, McGowin, D.F., 1993, Benini, A., 2018). For at least the last twenty years, however, there has been a partial change of course: the attempt, on the part of an ever-growing section of scholars, is to state, once the losses caused by the disease have been determined, what, on the other hand, remains unchanged until the final stages and, therefore, what should be focused on for a treatment of dementia that is not only pharmacological. There is talk of a true 'persistence of self' (Tappen, Williams, Fishman, Touhy, 1999), supported by several interesting empirical studies - the notion of 'self' will be returned to later. What emerges from these studies, often conducted through interviews with sufferers, is the constant recurrence of the first person singular '*I*', indicating an unequivocal self-reference. Even if it is the worsening of certain symptoms, it is always '*I*' who is experiencing them, '*I*' who cannot remember or '*I*' who feels confused. Of particular interest for the present study is then the subterranean demand common to recent research aiming at a reappraisal of dementia: that of an analysis that is not only quantitative and symptomatic, but qualitative, subjective, which seeks to delve into the lived experience of the dementia sufferer from his/her own perspective (Kitwood , T., 1997, De Witt L.; Ploeg J.; Black M., 2010; Millett, S., 2011; Johnson, H. F., 2016), attempting

to arrive at a description of the patient's *Lebenswelt*, that dimension of original and invariable pre-categorical and pre-reflexive datasets that also persists in dementia (Ashworth, 2003; Millett, 2011).

3. Transcendental elements: temporality, self and body

A year before Auguste Deter's death, in the winter semester of 1904/1905 in Göttingen, Edmund Husserl officially inaugurated his analyses of time with a series of lectures that later became famous as the *Zeitvorlesungen*. Since then, time never ceased to occupy his reflections. Time is indeed a red thread that runs subterraneously through all phenomenological reflection. Husserl would return to it, on and off, for almost thirty years: the *Zeitvorlesungen* of 1904-1905 represent only the beginning of a complex and extraordinary journey that would culminate in the *Bernauer Manuskripte* (1917-1918) and the *C-Manuskripte* (1929-1934).

Within the fertile phenomenological reflection on temporality, it is necessary to distinguish two different orders. The large field of *Zeitlichkeit* encompasses within it time in the narrow sense (*Zeit*), understood as «the immanent time of the flow of consciousness»[9], the set of those fundamental structures that constitute time-consciousness and temporal perception *per se*. For Husserl, the fundamental structure of time is tripartite. The beginning, the source of any perceptual course is the now-point or primal impression (*Urimpression*), the springing point at which I perceive an objectuality. The perception of what is offered to me now is presentation (*Gegenwärtigung*), it presents the object in the flesh and places it before my eyes, *originaliter*. Once the now-point is no longer perceived presently (e.g. when in a melody one note succeeds another), its noematic content is no longer offered to consciousness in a present and determinate way. Yet, it does not disappear altogether. It is retained. The mode of temporal consciousness of retention (*Retention*) 'rescues' the now-point from its sinking into oblivion. The primal impression does not plummet irretrievably beyond the limits of consciousness, but is held firmly in retention: from currently perceived as 'now' to retained as 'just been'. Retention is also referred to by Husserl as primary remembrance (*primäre Erinnerung*), whereby the object that we perceived as present until a moment before is remembered primarily and conscious in continuity with the new impression. There is, however, another

[9] Husserl, E. (1991). *On the Phenomenology of the Consciousness of Internal Time (1893-1917)*. Dordrecht: Springer, p. 5.

type of recollection. It is what Husserl calls secondary remembrance (*sekundäre Erinnerung*) or *Wiederinnerung*. In this case, what takes place is an actual reproduction. If perception is a presentation that gives things in themselves and retention merely retains them like a comet's tail, remembrance reproduces what has been perceived in the past, re-constituting the objectuality by making it present again, even if not currently. It is no longer a presentation, but a re-presentation (*Vergegenwärtigung*). The last element that constitutes the elementary structure of temporal perception is protention or expectation (*Erwartung*), the temporal mode that is distinguished by its tension towards what is yet to be.

And yet, as early as the lectures of 1905, Husserl feels the need for an even more fundamental investigation. In addition to the description of the main temporal modes of consciousness, an ultimate foundation is missing, a substratum that precedes the constitution of temporal objectuality and is its condition. Temporality is not only time in the strict sense. Within *Zeitlichkeit*, in addition to the structures of temporal consciousness (*Zeit*), there is a more fundamental order, what Husserl designates as the set of «time-constituting phenomena»[10]: temporalisation or *Zeitigung*. Of this constitutive flux one cannot predicate the now, the before or the after, precisely because it serves as the substratum to that continuum of appearances that is the perceptual course, and thus founds it. The founding dimension of temporalisation will be the protagonist of the *C-Manuskripte*: in them, Husserl states that the world that surrounds us and that we experience «*ist uns in unabänderlicher Notwendigkeit in einem beständigen Fluss gegeben*»[11]: the invariant, the fundamental substratum. The unalterable flow is essentially original, that is, it lies at the basis of every possible experience of consciousness, since «*alles ist Im urphänomenalen Strömen als darin "sich gebend"*»[12]. This original flow is the «*Urstrom [...] die Urzeitigung*»[13], the most intimate dimension of the transcendental self. It imposes a determined and necessary structure on everything that is given to consciousness, it commands a rigid form, which consists of an original now from which the two different continuities of the just been and what is to be unravel. This temporal form is «*ein stehendes und bleibendes Ur-Jetzt als starre Form*»[14]; it is always the same. It is

[10] Ivi, p. 79.
[11] Husserl, E. (2002). *Zur phänomenologischen Reduktion. Texte aus dem Nachlass (1926-1935). Die C-Manuskripte*. Dordrecht: Springer, p. 1.
[12] *Ibidem.*
[13] Ivi, p. 4.
[14] Ivi, p. 8.

the contents of perceptions and experiences of consciousness in general that change and, therefore, flow. The original temporal flux is flux, but it does not flow, it rather remains in its universal order. This foundational dimension could be described better as the bed of an eternal river: it does not change, it is not eroded by anything, it remains the same and contains the 'phenomenal-conscious' water, which, instead, flows through it. Thus, not only does it contain every experience of consciousness, but it governs, since it gives a form to flow, it commands a precise order to what flows in it. This, on the whole, has been effectively described as the «micro-structure of experience»[15], the constant background that accompanies and orders any experience, what Husserl defines as «*das Ineinander von Retention und Protention*»[16].

Reflection on temporality presents in itself a potential evolution to a further level. It is Husserl himself who states in *Analysen zur Passiven Synthesis. Aus Vorlesungs und Forschungsmanuskripten (1918-1926)* that the doctrine of association can rightly be considered «so to speak, a higher continuation of the doctrine of original time- constitution»[17]. It could not be otherwise. Primal impressions no longer perceived at present do not sink into the realm of oblivion, but are retained in retention. Not only that: the subject has the capacity to re-present, through secondary recollection (*Wiedererinnerung*) object-perceptions perceived in the past, thus making them present again. The link between present perceptions and remembrances is precisely the association: the present recalls the past, the noematic content of an original impression can recall, by similarity, a content already perceived and in this way reawaken it. Association consists precisely in these reawakenings by similarity, reproductions that respond to a precise internal legality of the experience itself. It is thanks to reproductive associations that the subject is «able to become conscious of the fact that it has behind itself an endless *field of past lived- experiences* as its own, a *unity of past life* in the form of time»[18]. The subject comes to constitute itself essentially as that stable pole to which all past experiences pertain, by virtue of the

[15] Summa, M., Fuchs, T. (2014) Self-experience in dementia. In *Rivista internationale di filosofia e psicologia*, 6(2), p. 391.
[16] Husserl, E. (2001). *Die Bernauer Manuskripte über das Zeitbewusstsein (1917/18)*. Dordrecht: Springer, p. 3.
[17] Husserl, E. (2001). *Analyses Concerning Passive and Active Synthesis: Lectures on Trasnscendental Logic*, Trans. A. J. Steinbock. Dordrecht: Springer, p. 163.
[18] Ivi, p. 169.

«the possibility of our acquired knowledge being freely at our disposal»[19]. Temporalisation and association concern «nothing else than [...] the fundamental problem, the basic, essential conditions of the possibility of a subjectivity itself»[20].

The study of reproductive associations has defined the conditions for the constitution of one's past to take place. With associations, the immanent conscious life takes on the character of an organic and necessary union of experiences, one referring to the other. A dense weave in which each new future experience can only emerge from the omnipresent and comprehensive horizon of one's past life. With temporalisation and association, a certain type of subjectivity is self-constituted, determining itself as the permanent substratum of all one's own memories.

The analysis conducted so far, however, turns out to be partial or, better said, limited at a closer look. The subjectivity treated so far is of a particular type, but it is not the only one. As the literature on the subject shows, one can in fact speak of several selves (Neisser, U., 1988; Zahavi, D., 2007); the self founded on secondary memories and association can be defined as a *narrative self*. A self, therefore, that is constituted through the organic and explicit narration of one's past experiences and that is grasped as the identical pole to which the latter are inherent. A perspective that only takes account of the narrative self (Ricœur, P., 1990) and that considers it above all as the only modus of being truly subject turns out to be one-sided. The theoretical proposal that the present contribution seeks to defend is that of a constitutive stratification of the self and self-experience. The self is polymorphous (Neisser goes so far as to distinguish five selves: ecological, interpersonal, extended, private and conceptual), it presents on the whole higher and more articulate levels and lower and more basic levels. Among the latter, at the most fundamental level is the minimal self, the most fundamental and basic order, that pre-reflective kingdom of self-awareness that underlies every possible experience. The minimal self is mainly that sense of *mineness* that makes me aware without logical reflection that it is I who perceive, I who feel pain, I who want, I who remember. It is clear that the minimal self is foundational with respect to the complex narrative unity composed of the set of past experiences; this could not exist without the micrological sense of

[19] Ivi, p. 47.

[20] Ivi, p. 169. It will be seen later how, in reality, it is a particular subjectivity that is at issue here, namely the *narrative self*.

'mineness' implicit in every experience and which consists precisely in the minimal self.

As Summa and Fuchs note, the fundamental dimension of the pre-reflective strongly brings out the centrality of the body. Not so much a physical body (*Körper*) as a lived body (*Leib*), a transcendental centre that serves as the common horizon of our perceptions, our movements, our orientation (Husserl, E., 1952). And it is precisely through the *Leib* that we are led to another type of memory, one that differs markedly from secondary retention and association, from the explicit recollection of memories in narrative form. This is about bodily memory, the fact that the body also retains and sediments movements, procedures, emotional affections which, repeated, go to form what has been defined as implicit memory (Fuchs, T., 2012); even in the pre-reflective field, therefore, we can legitimately speak of memory. The body's memory has different forms (Fuchs distinguishes between procedural, situational, intercorporeal, incorporative, pain memory and traumatic memory) and means that it is not only the narrative, explicit and rational self that is the bearer of the past; the body also «carries its own past»[21].

Being *embodied* in a lived body, the sense of *mineness* and the triadic *temporal structure* constitute the pillars of the minimal self, thanks to which we are always aware of ourselves as '*self-as-subject*', that is, as selves that self-refer to themselves the experiences of consciousness, that live in the intertwining of the now, the just-been and the about-to-be and that are constitutively embodied in a living body with its own memory and past.

4. Phenomenological-transcendental interpretation: the invariants of dementia

An attempt will now be made to describe and interpret dementia from a phenomenological-transcendental point of view. An attempt will be made to understand which consciousness structures are altered in comparison to a healthy person and what, on the other hand, remains almost completely unchanged, even in the more advanced stages of the illness. The person with dementia also has and lives in a *Lebenswelt* (Millett, S., 2011; Ashworth, A., 2003), with its own legality and ultimate invariants.

[21] Fuchs, T. (2012). The phenomenology of body memory. In Koch S. C., Fuchs T., Summa M., Müller C., *Body, Memory, Metaphor and Movement*, Amsterdam: John Benjamins Publishing Company, p. 20.

In the early stages of the disease, it appears that it is mainly short-term memory that is attacked. At the transcendental level, hypotrophy of the hippocampus would be equivalent to impairment of the function of remembrance or the closest secondary memory. The ability to hold on to information and events from the very recent past would then be lost. The disease advances and the brain lesions become more and more extensive. Now irreversibly damaged are the frontal lobes and, in particular, the anterior cingulate cortex, the one that, according to contemporary neurology, is largely the seat of long-term memory. Memory is at this stage strongly and irreparably impaired. The patient no longer remembers his home address or when his birthday is, he no longer recognises his family members, and the red thread that used to bind all his past experiences becomes increasingly thin. Let us now see what consequences the aggravation of dementia brings to transcendental subjectivity.

The advanced stage of the disease leads to a further inhibition of distant retention, of secondary memory. By affecting the centres responsible for long-term memory, the person loses the ability to freely dispose of his or her past explicit memories. The subject has difficulty in re-presenting once perceived objects. These deteriorations clearly also have consequences for association. If the field of temporality is altered with the inhibition of distant retention, association, which is rooted in temporality itself, cannot continue as before. The web of cross-references between past and present experiences that is the life of consciousness of a healthy subject unfortunately loses its linearity and narrative organicity.

Conscious life, which is normally a synthesis of *Gegenwärtigungen* and *Vergegenwärtigungen*, is, as it were, mutilated in one of its two fundamental components. In the absence of alterations, subjectivity always has the possibility of bringing forth remembrances from the «subsoil of memory (*Gedächtnisuntergrund)*»[22]; memories constitute «our own entire past of consciousness»[23], a «realm of freedom, of free generation»[24] thanks to which what Husserl calls «idea of *complete self-giving*»[25] is possible. The subject 'offers' itself: it donates itself to itself. The whole complex of distant memories never completely disappears. Of course, it is not – nor could it – always be present and actual, but it is

[22] Husserl, E. (2001), p. 245.
[23] Ivi, p. 255.
[24] *Ibidem.*
[25] Ivi, p. 256.

retained in consciousness and can always be reawakened. It is through self-giving that the self is constituted as narrative, a pole with its own conscious past to which it can always refer. Dementia takes this possibility away from the patient and deprives him of his own past of explicit experiences and memories.

Up to now, we have dealt with what dementia unfortunately takes away or severely limits. Yet, even in the most severe stages, something remains. Certainly not the reflexive and narrative level of the self, but a more basic level. The purpose of the contribution is precisely to demonstrate how a phenomenological-transcendental analysis makes manifest the presence of the *pre-reflective dimension* in dementia patients. A purely 'naturalised' study of the disease (e.g. Esiri, M. M., Lee, V. M.-Y-, Trojanowski, J. Q., 2004), i.e. a study that only takes into account changes at an anatomical level and the resulting possible pharmacological treatment, is limited with respect to a truly holistic understanding.

The three elements that characterise the minimal self – the sense of mineness, the triadic temporal structure of consciousness experience and embodiment in a lived body – will now be considered and an attempt will be made to understand whether and to what extent they remain unchanged in dementia. In Chapter Two, it was already anticipated that a sense of mineness, i.e. a basic self-reference, persists in dementia patients. This is first of all evident from a number of studies conducted through patient interviews - proving the value of the alliance between empirical research and phenomenological-transcendental studies. In these interviews, it emerged how frequent it is, even in the middle to advanced stages of the illness, to self-referring, to refer particular conscious and emotional states to oneself anyway, even to express awareness of the pathology, worries or states of unhappiness. «*I* know I've got Alzheimer's, but *I* don't really know how it affects me», «*I* don't want to be a worry [...]» (Johnson, H. F., 2016), «*I* am very unhappy» (Tappen, R. M. et alia, 1999); in all these cases, the common denominator is the first person pronoun, indicating the mineness of the different states. These, in fact, are implicitly and unreflectively referred to as self, without the need to rationalise or categorise this intimate inherence. When I feel that I want something, I am always implicitly aware that it is 'I ' who want it; it is a basic certainty, but one that allows one to speak of a self preserved even in dementia. A self that pre-reflexively knows itself to be other than what it perceives, wants, fears or no longer remembers; the minimal self is implicitly aware of the original difference between myself and the other than myself, or, in Hus-

serlian terms, between the *Ur-ich* and the *Ur-hyle* (Husserl, E. 2002). Ultimately, also dementia patients know themselves as the centre and the common horizon of their own experience.

Let us now turn to the second point: the temporal structure of consciousness. Dementia, as we have seen, leads to a radical alteration of remembrance, first of events that occurred recently, with the progress of the illness even of more remote events. This, however, in no way implies that the temporal structure of each experience of consciousness is affected. The 'micro-structure of experience' (Summa, M., Fuchs, T., 2014) consists of the incessant interweaving and succession of retentions, original impressions and protensions. This «*beständingen Fluss*»[26], the «*Strom der Zeit*»[27] embraces the whole life of consciousness and gives a precise flowing order to every conscious phenomenon. Husserl calls this entanglement *Urphänomen* and ascribes to it the characteristics of *unabänderliche Notwendigkeit*. The *Urphänomen* remains unchanged even in dementia. The necessary order that governs the progress of the life of consciousness does not change and even in the most advanced stages, the patient will always live according to a before, an now and a then. What is altered, as we have seen, is a 'higher' temporal faculty, that of distant retention; but the temporal flow remains as it is even in illness, in its unalterable necessity. For a precise understanding of the inner experience of the patient, the phenomenological distinction between primary and secondary retention is crucial.

Secondary retention, however, is not the only type of retention that is preserved. Another type of retention remains unchanged in dementia and plays an enormously important role: it could be called 'bodily retention' and consists of the memory of the lived body: the *Leibgedächtnis*. We are thus led to the last element of the minimal self, the embodiment in a lived body. Unlike the organic body, the lived body is a true transcendental function: that is, it acts as a receptive centre of sensations and affections in general and as a propulsive centre of movement. Embodiment in a lived body is an invariant of experience even in patients, who continue to experience themselves in a body as *Leib*, as 'point-zero' of our being in the world. Contrary to what one might think, the lived body does not have space as its only dimension. The body is also in time (Fuchs, T., 2020) and consequently has a memory. This is not an explicit, narrative memory, but an implicit memory of a different kind. A memory that settles in the lived body

[26] Husserl, E. (2002). *Zur phänomenologischen Reduktion. Texte aus dem Nachlass (1926-1935). Die C-Manuskripte*. Dordrecht: Springer, p. 1.
[27] *Ibidem*.

and which, thanks to the reiteration of certain movements or affections, becomes a habit or a well-assimilated capacity. This type of implicit memory has also been defined as procedural precisely because it is a *know-how* that, as Bergson argues, does not represent the past narratively, but re-enacts it through the body (Bergson, H., 2007). Think of driving a car. During the first few drives, one undertakes to carry out the instructions given to us step by step, consciously and rationally; driving is usually clumsy and difficult. Once one has learnt 'bodily' how to drive, the attempt to follow the different driving phases explicitly ceases and driving becomes fluid and unconscious; after repeated rehearsals, the '*how*' to drive has settled in our body. Implicit memory surprisingly remains almost completely unchanged in dementia patients, even in advanced stages (Eldrige, L.L., Masterman, D., Knowlton, B.J., 2002; Harrison, B., Son, G.R., Kim, J., Whall, A.L., 2007; Fuchs, T., 2020), in the form of acquired and sedimented past habits, implicit bodily knowledge, postures, emotional reactions to people or places even when the patients no longer recognise them. This type of memory is not affected in dementia and, indeed, without the possibility of the explicit recollection of memories in narrative form it becomes of enormous importance. The lived body and the implicit memory sedimented in it could, in fact, also lead to astonishing results on a therapeutic level, synergistically supplementing pharmacological treatment. Interesting studies show promising results in dance practices with patients (Karkou, V., Meekums, B., 2017) or yoga and meditation (Hüttenrauch, M., Lopez-Noguerola, J.S., Castro-Obregón S., 2021; Hüttenrauch, M., Castro-Obregón, S., 2022.).

The phenomenological-transcendental analysis has shown how in dementia not everything is lost, but there are invariants that resist the illness and persist. Patients lose the ability to explicitly narrate their experiences, but retain the minimal self; in this sense, we move away from the interpretation of the minimal self as marked only by the sense of mineness (Gallagher, S., 2000, Hutmacher, F., 2021) and prefer to embrace a more holistic and comprehensive view of the minimal self, including in addition to the sense of mineness also the temporal microstructure of consciousness and embodiment in a lived body with implicit memory – therefore, *raum-zeitlich* (Summa, M., 2020). Dementia is essentially distinguished from other types of neurodegenerative or psychiatric disorders as an *alteration of the reflexive self* (Summa, M., 2013, Fuchs, T., 2020), the narrative and explicit higher level, and at the same time - unlike, for example, schizophrenia - as the *preservation of the minimal self* in its three constituent components.

Interestingly, Husserl, although not explicitly speaking of dementia, had already arrived at these conclusions theoretically in the *C-Manuskripte*. In a passage within the C-4, in fact, dealing with the subject of *Depersonalisation*, Husserl feels the need to specify the fact that if a subject were to suddenly lose his personal memories (*personale Erinnerungen*) – we could say: lose the possibility of remembrance –, a «*Bestand menschlicher Kontinuität*»[28] would nevertheless exist. A human continuity, a continuity of the fundamental pillars that structure the life of consciousness. Therefore, Husserl goes on to say, such a subject would continue to have *bewusstseinsmäßig* (on a conscious level) the same lived body, the same perceptual environment (including a mineness, a temporality and an embodiment). Even in the absence of explicit memories, something fundamental and foundational remains: what Husserl calls in these manuscripts the «*Strom der Weltkonstitution*»[29], that basic, pre-reflexive level that the dementia patient still has.

5. Conclusions. For a 'mutual enlightenment' on a equal footing

Five years after Frau Deter's death, Husserl was invited by the neo-kantian Rickert to write a contribution for the journal *Logos*, which was to become the famous *Philosophie als stremge Wissenschaft*. The contemporary debate on the naturalisation of phenomenology – as Albertazzi rightly notes – would paradoxically seem to completely overlook what Husserl himself wrote and, in particular, the aforementioned contribution, forgetting how much the «original Husserlian stance is deeper, clearer and more advanced than most supposed contemporary improvements»[30].

As pointed out in the introduction, one gets the impression that the various and heterogeneous attempts to naturalise phenomenology and consciousness in general (Penrose, P. 1994, Edelman, G. M., 1989, 2003, Edelman, G.M., Gally, J.A., Baars, B.J., 2011) aim to place the phenomenological-transcendental study of consciousness in a quantitative and biological epistemological framework, *de facto* considering it a useful supplement to the 'true' neurological and naturalised explanation of the matter; through the naturalisation of consciousness and its reduction to neuronal activity, it can be claimed that «at

[28] Ivi, p. 104.
[29] *Ibidem.*
[30] Albertazzi, L. (2018). Naturalizing Phenomenology: A Must Have?. In *Front. Psychol.* 9:1933, p. 1.

the end of our studies, when we [will] have grasped its mechanisms in greater detail, consciousness will lose its mystery and be generally accepted as part of the natural order»[31]. What the American biologist Edelman proposes, for example, is a totally naturalised explanation of consciousness: a biological approach that explains and exhausts the study of consciousness through neuronal processes. Edelman also states that a biological explanation does not need metaphysical proposals of any kind (Edelman, G.M., 2011); consciousness, therefore, becomes to all intents and purposes an exclusively biological phenomenon. It is precisely to this claim that Husserl already responded effectively more than a century ago, affirming the possibility of a philosophy that is rigorous science through *Wesenschauung*, which, we repeat, allows us to arrive at apodictic and universal results. A transcendental phenomenology of consciousness differs markedly from an empirical psychology or, in contemporary terms, from neurobiology.

The natural sciences have a method that has proved excellent in the study of nature. However, it would be a mistake to try to extend the scientific method to all possible questions and all of existence or, rather, to consider all of existence from this perspective alone. Famous is Bergson's criticism of those who believe they can study the internal time, real duration, with quantitative instruments alone, accusing them of an undue spatialisation of real duration. «Pure duration», writes Bergson, «that which consciousness perceives [...] strictly speaking [...] it is not a quantity, and as soon as we try to measure it, we unwittingly replace it by space»[32]. The doubt that a total naturalisation of consciousness and phenomenology gives rise to is in this sense similar to Bergson's critique. If, for Bergson, spatialising real duration is a mistake, because it means neglecting the true nature of the object of investigation (which, in Bergson's case, is incompatible with quantitative analysis), the present contribution hopes to have shown how problematic, in this case, is *the complete naturalisation* of the more general question of consciousness and of more particular questions, such as dementia.

Treating these issues solely and exclusively from the point of view of naturalized sciences does not allow to embrace them with a broad scope, but rather with a shortsighted gaze; this extreme Occam's razor, which would reduce

[31] Edelman, G.M. (2003). Naturalizing consciousness: a theoretical framework. In *Proceedings of the National Academy of Sciences*, 100(9), p. 5524.
[32] Bergson, H. (2001). *Time and Free Will. An Essay on the Immediate Data of Consciousness*. Trans. F. L. Pogson. Mineola-New York: Dover Publications, p. 106.

the whole issue to neuronal activity, can only result in an overall impoverishment of research and a one-sidedness that, so to speak, mutilates the real in its transcendental aspect.

> There is no need now, especially after all the explanations already given, of further refinements to enable us to see most clearly and for the most profound reasons what has already been presented above: that all psychological knowledge in the ordinary sense[33] presupposes essential knowledge of the psychical, and that the hope of investigating the essence of recollection, judgment, will, etc. by means of casual inner perceptions or experiences, in order thereby to acquire the strict concepts that alone can give scientific value to the designation of the psychical in psychophysical statements and to these statements themselves – that such a hope would be the height of absurdity.[34]

The transcendental is not an «other-wordly, ghostly, homunculus»[35]; rather, it is the directly experienced dimension of the real, not as objects in the world, but as subjects experiencing this world. An analysis of consciousness experience is subjective and from the 'inside', but nevertheless universal in its general characteristics. Empirical study and transcendental study are not reducible to one another (Gallagher, S., 2013) precisely because of the different perspective from which they start, but this does not mean that they cannot work together. The aim of the article was to demonstrate concretely how mutual enlightenment is possible and, above all, how fertile and promising it is. The neurodegenerative pathology of dementia certainly requires biological analysis; however, a transcendental-phenomenological study of the disease manifests fundamental aspects of the disease itself, which are necessary in order to arrive at a holistic and integral understanding and, indeed, also useful on a therapeutic level . Therefore, not a mere integration, but a collaboration, we could say, '*on an equal footing*'.

REFERENCES

Albertazzi, L. (2018). Naturalizing Phenomenology: A Must Have?. In *Frontiers in Psychology*, 9(1933).

[33] Or, we might say at the present time, neurological naturalized knowledge.
[34] Husserl, E. (1965), p. 118.
[35] Zahavi, D. (2004). Phenomenology and the project of naturalization. In *Phenomenology and the Cognitive Sciences*, 3, p. 335.

Ashworth, A. (2003). The lifeworld as phenomenon and as research heuristic, exemplified by a study of the lifeworld of a person suffering Alzheimer's Disease. In *Journal of Phenomenological Psychology*, 34(2), 179, pp 179-205.

Benini, A. (2018). *La mente fragile. L'enigma dell'Alzheimer*. Milano: Raffaello Cortina Editore.

Benini, A. (2020). *Neurobiologia del tempo*. Milano: Raffaello Cortina Editore.

Bizzari, V., Vanacore, R. (2021). *Il corpo vivo nel mondo. Introduzione al pensiero di Thomas Fuchs*. Roma: Giovanni Fioriti Editore.

Bergson, H. (2001). *Time and Free Will. An Essay on the Immediate Data of Consciousness*. Trans. F. L. Pogson. Mineola-New York: Dover Publications.

Bergson, H. (2007). *Matière et mémoire. Essai sur la relation du corps à l'esprit*. Paris: PUF.

Charmaz, K. (1987). Struggling for a self: Identity levels of the chronically ill. In *Research in the Sociology of Health Care*, 6, pp. 283-321.

Cohen, D., Eisdorfer, C. (1986). *The loss of self*. New York: W.W Norton.

Costa, V. (1999). *L'estetica trascendentale fenomenologica. Sensibilità e razionalità nella filosofia di Edmund Husserl*. Milano: Vita e Pensiero.

De Warren, N. (2009). *Husserl and the Promise of Time. Subjectivity in Transcendental Phenomenology*. Cambridge: Cambridge University Press.

De Witt L., Ploeg J., Black M. (2010). Living alone with dementia: an interpretative phenomenological study with older women. In *Journal of Advanced Nursing*, 66(8), pp 1698-1707.

Edelman, G.M. (1989). *The Remembered Present: A Biological Theory of Consciousness*. New York: Basic Books.

Edelman, G.M. (2003). Naturalizing consciousness: a theoretical framework. In *Proceedings of the National Academy of Sciences*, 100(9), pp. 5530-5524.

Edelman, G.M., Gally, J.A., Baars, B.J., (2011). Biology of consciousness. In

Frontiers in Psychology, 2(4).

Eldrige, L.L., Masterman, D., Knowlton, B. J. (2002). Intact Implicit Habit Learning in Alzheimer's Disease. In *Behavioral Neuroscience*, 116(4), pp. 722-726.

Esiri M. M., Lee, V. M.-Y., Trojanowski, J.Q. (2004). *The neuropathology of dementia*. Cambridge: Cambridge University Press.

Fazio, S., Mitchell, D. B. (2009). Persistence of self in individuals with Alzheimer's disease. Evidence from language and visual recognition. In *Dementia*, 8(1), pp. 39-59.

Fuchs, T. (2005). Implicit and explicit temporality. In *Philosophy, Psychiatry & Psychology*, 12(3), pp. 195-198.

Fuchs, T. (2018). Leiblichkeit und personale Identität in der Demenz. In *Deutsche Zeitschrift für Philosophie*, 66(1), pp. 48-61.

Fuchs, T. (2012). The phenomenology of body memory. In Koch S. C., Fuchs T., Summa M., Müller C., *Body, Memory, Metaphor and Movement*, Amsterdam: John Benjamins Publishing Company, pp. 9-22.

Gallagher, S. (2000). Philosophical conceptions of the self: implications for cognitive science. In *Trends in Cognitive Sciences*, 4, pp- 14–21.

Gallagher, S. (2013). On the possibility of naturalizing phenomenology. In D. Zahavi. *Oxford Handbook of Contemporary Phenomenology*. Oxford: Oxford University Press, pp. 70-93.

Harrison, B., Son, G. R., Kim, J., Whall, A.L. (2007). Preserved Implicit Memory in Dementia: A Potential Model of Care. In *American Journal of Alzheimer's Disease and Other Dementias*, 22(4), pp. 286-293.

Husserl, E. (1965). *Phenomenology and the Crisis of Philosophy*. Trans. Q. Lauer. New York: Harper and Row.

Husserl, E. (1991). *On the Phenomenology of the Consciousness of Internal Time (1893-1917)*. Trans. J. B. Brough. Dordrecht: Springer.

Husserl, E. (2001). *Analyses Concerning Passive and Active Synthesis: Lectures on Trasnscendental Logic*. Trans. A. J. Steinbock. Dordrecht: Springer.

Husserl, E. (2001). *Die Bernauer Manuskripte über das Zeitbewusstsein (1917/18)*. Dordrecht: Springer.

Husserl, E. (2002). *Zur phänomenologischen Reduktion. Texte aus dem Nachlass (1926-1935). Die C-Manuskripte*. Dordrecht: Springer.

Hutmacher, F. (2021). Understanding the self of people with dementia: psychological and philosophical considerations. In *Z Gerontol Geriatr.*, 54(2), pp. 161-166.

Hüttenrauch, M., Lopez-Noguerola, J.S., Castro-Obregón S. (2021). Connecting Mind-Body Therapy-Mediated Effects to Pathological Features of Alzheimer's Disease. In *Journal of Alzheimer's Disease*, 82(1), pp. 65-90.

Hüttenrauch, M., Castro-Obregón, S. (2022). How mind-body therapies might reduce pathological features of Alzheimer's disease. In *Neural Regeneration Research*, 17(8), pp. 1757-1758.

Johnson, H. F. (2016). Exploring the Lived Experience of People with Dementia Through Interpretative Phenomenological Analysis. In *The Qualitative Report*, 21(4), pp. 695-711.

Karkou, V., Meekums, B. (2017). Dance movement therapy for dementia. In *Cochrane Database of Systematic Review*, 2(2).

Kitwood, T. (1997). *Dementia reconsidered: The person comes first*. Buckingham: Open University Press.

Koyrè, A. (1962). *Du monde clos à l'Univers infini*. Paris: Presses Universitaires de France.

Levy, B., Dreier, T. (1997). Preservation of temporal skills in Alzheimer's disease. In *Neuropsychology*, 23, pp. 178-188.

McGowin, D.F. (1993). Living in the labyrinth: A personal journey through the maze of Alzheimer's. San Francisco, CA: Elder Books.

Metzger, W. (1936). *Laws of Seeing*. Trans. L. Spillmann, S. Lehar, M. Stromeyer, and M. Wertheimer. Cambridge: MIT Press.

Millett, S. (2011). Self and embodiment: A bio-phenomenological approach to dementia. In *Dementia*, 0(0), pp. 1-14.

Neisser, U. (1988). Five kinds of self-knowledge. In *Philosophical Psychology*, 1(1), pp. 35-39.

Paci, E. (1961). *Tempo e verità nella fenomenologia di Husserl*. Bari: Laterza.

Penrose, P. (1994). *Shadows of the Mind: A Search for the Missing Science of Consciousness*. New York: Oxford University Press.

Petitot, J., Varela, F. J., Pachoud, B. and Roy, J. M. (1999), *Naturalizing Phenomenology: Issues In Contemporary Phenomenology and Cognitive Science*. Stanford: Stanford University Press.

Piana, G. (1967). *Elementi di una dottrina dell'esperienza*. Milano: Il Saggiatore.

Reisberg, B. (1982). The global deterioration scale for assessment of primary degenerative dementia. In *American Journal of Psychiatry*, 139, pp. 1136-1139.

Sturchio, A., Dwived,i A.K., Malm, T., Wood, M.J.A., Cilia, R., Sharma, J.S., Hill, E.J., Schneider, L.S., Graff-Radford, N.R., Mori, H., Nübling, G., El Andaloussi, S.,

Svenningsson, P., Ezzat, K., Espay, A.J. 2022. High Soluble Amyloid-β42 Predicts Normal Cognition in Amyloid-Positive Individuals with Alzheimer's Disease-Causing Mutations. In *Journal of Alzheimer's Disease*, 90(1), pp. 333-348.

Summa, M. (2013). The Disoriented Self. Layers and Dynamics of Self-experience in Dementia and Schizophrenia. In *Phenomenology and the Cognitive Sciences*, 13(3), pp. 477-496.

Summa, M., & Fuchs, T. (2014). Self-experience in dementia. In *Rivista internationale di filosofia e psicologia*, 6(2), pp. 387–405.

Tappen R. M., Williams C., Fishman S., Touhy T. (1999). Persistence of Self in Advanced Alzheimer's Disease. In *Image J Nurs Sch.*, 31(2), pp. 121-125.

Zahavi, D. (2004). Phenomenology and the project of naturalization. In *Phenomenology and the Cognitive Sciences*, 3, pp. 331-347.