

## Introduction

In philosophy, personal identity denotes the set of properties by which a subject can be defined as an individual both distinct from all others (uniqueness or synchronic identity) and identical to himself or herself over time (diachronic identity; Locke, 1689<sup>1</sup>; Hume, 1739<sup>2</sup>). This ontological definition of personal identity meets an epistemological perspective, that of the subject who feels his identity. It is often considered that experienced identity includes a temporal dimension - by which the subject relates to past selves on the autobiographical mode of continuity (narrative self; Gallagher, 2000<sup>3</sup>) - and a bodily dimension - by which the subject has a first-person experience of his own singularity (bodily self; Gallagher, 2005<sup>4</sup>). The main thesis of this work is that experienced identity makes it possible to redefine the more traditional notion of personal identity by forming it as an essentially dynamic and embodied experience.

The dual aim of this study is to determine what identity refers to - what its objective foundation is within the subject – and to understand how it works – i.e. how the subject relates to its own identity as a first person. In this introduction, we will first present the assumptions that guided our approach, then we will explain the specific methodology we adopted, and finally, we will focus on the main arguments that we defended and we will present the general evolution of the line of argument.

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<sup>1</sup> LOCKE, J. (1689), *Essai philosophique sur l'entendement humain*, Paris, Vrin, 2001, II, 27, pp.511-543.

<sup>2</sup> HUME, D. (1739), *Traité de la nature humaine*, trad. P. Baranger et P. Saltel, Paris, Flammarion, 1995, I, IV, 6, pp.342-355.

<sup>3</sup> GALLAGHER, S. (2000), Philosophical conceptions of the self: implications for cognitive sciences, *Trends in Cognitive Sciences*, 4(1): 14-21.

<sup>4</sup> GALLAGHER, S. (2005), *How the body shapes the mind*, Oxford, Oxford University Press.

## Assumptions adopted

### **A physicalist view**

Our approach is characterized by a physicalist bias which maintains that it is possible to account for mental experiences in the first person by a completely physical explanation. This study seeks to account for identity as a first-person experience within the frame of natural sciences, or in other words, to explore the physiological conditions of feeling, made of familiarity and consistency, on which the pre-theoretical intuition of the self in the common sense is based. Being able to recognize myself in front of a mirror or simply feeling that this arm is mine, or that this house in which I live is mine, would not be possible without a psychological sense of ownership or familiarity referred to as the conceptual notion of *one's own* (what is mine). In order to determine how this feeling is created, we will try to go back to the physiological conditions that support the functions related to the experience of identity. Thus, by proceeding deductively from the concept of diachronic identity as autobiographical continuity (Locke, 1689) to a possible underlying brain function, it seems that memory supports a portion of my experienced identity by a linear accumulation of my past. I can feel as a single and continuous being through time because my memory preserves what I was yesterday and enables me to recognize myself today. In this perspective, experienced identity is based on certain brain functions. Besides the fact that a physicalist interpretation of the concept of identity is based on a desire to be consistent with the contemporary scientific context, it also has the advantage of making experiments possible. We will thus be able to test the way memory functions as the first "organ" of identity through the many disorders which, by affecting the memory function, have an immediate impact on the experienced identity of the subject as his or her ability to experience oneself as self-identical through time. Our approach to identity is thus singled out by the requirement of considering the identity experience within the frame of a naturalistic theory. This approach thus responds immediately to the dualistic inability to articulate causally an immaterial identity principle and the body (*mind-body problem*) by

proposing to integrate the explanation of mental experiences in a comprehensive materialist theory.

### **Thinking together the subjective experience in the first person and the objective knowledge in the third person**

Opposed to any form of dualism, our approach should however be formed as a unified theory of the subjective experience of being oneself and the objective knowledge of identity that can be created as a third person so as to account for all dimensions of the concept of identity. Thus, we will pay constant attention to how, on the psychological level, the subject experiences an identity capacity that will be related to a physiological activity, as we believe that the capacity of an identity model to explain these two epistemic perspectives helps us gain conceptual power. We believe that this requirement makes sense in the very structure of the reflexive subject. Indeed, since human beings are endowed with reflexive consciousness, they are able to refer to themselves in the first person – thus experiencing a highly subjective and qualitative modality of what the fact of relating to oneself means for each person. Human beings are also able to refer to themselves in the third person – thus seeking to build knowledge by concepts and objective knowledge of identity. We want to let the subject speak in the first person, not only to stay as close as possible to the intuitive nature of the concept of identity, but also, as a result, to our approach to identity as an experienced feeling of one's own. By definition, such a feeling cannot be considered from a third-person perspective only. However, in order to maintain our physicalist presupposition, it is with a physiological reality - as it may be conceptually developed in the third person – that we will report this psychological experience first given in the first person. The same concern about theoretical unification and faithfulness to the reflective structure of human experience led to our decision to place these reflections within the framework of both mind and body philosophies and thereby, phenomenology: not only because, through memory or the sense of ownership, we use brain knowledge of identity, but also because we believe it is

not possible to think about the concept of identity without registering it in the depths of the experience embodied in a specific body: mine.

## **Methodology**

### **An experimental epistemology**

Because of the two requirements aforementioned, our research was ingrained in a constant dialectical movement between the subjective experienced identity and its conceptualization in a physicalist system. It is because both objectives were followed together that the redefinition operated here has taken a particular form: that of an experimental epistemology, i.e. a method of conceptual development marked by the desire to ensure that these theoretical models face the reality of the situations they are supposed to report. Indeed, we believe that the possibility for an epistemological concept of identity to be formed in a philosophical frame of reference while being operative in explaining the empirical disorders of experienced identity increases its hermeneutic and practical power. The philosophy of science has the special feature of introducing concepts which, while informing the common sense, are also involved in the development of scientific models themselves. Identity disorders, as conceived in neuropsychology, were first interpreted in a conceptual vocabulary that belongs to the philosophy of the mind. However, the discrepancy between clinical situations and the conceptual framework does not allow us to claim an immediate therapeutic effectiveness of epistemological concepts. The dialogue between a purely theoretical conceptual development and therapeutic requirements is necessary in order to experimentally create a concept of identity which can ensure that there is a greater efficiency, both speculative and practical, when this concept is confronted with actual pathological situations.

With this objective in mind, we decided to carry out, in each dimension of identity (temporal and physical), an empirical evaluation of the redefinition that we first developed in a theoretical way. Thus, the terms of our conceptual thinking was nourished by the

implementation of two experimental protocols intended to test the explanatory and therapeutic power of our new concept of identity. In addition, in the construction of our protocols, we adopted a method already tested in science, which involves assessing the power of a theoretical model by its ability to account not only the healthy functioning of the relevant capacity but also its pathological dysfunction. Thus, to evaluate the empirical effectiveness of our conception of identity, we chose to check it against two specific experienced identity disorders: one affecting the diachronic constitution of identity via brain damage involving the functioning of the autobiographical memory (Alzheimer's disease) and one affecting the constitution of a body identity via brain damage resulting in complete paralysis of the subject (locked-in syndrome). In order to be satisfactory, our conception of identity must, on the one hand, be able to account for psychological experienced identity and physiological objective lesions observed in these two diseases, in a unified theory, and, on the other hand, be able to suggest therapeutic approaches by linking the model of healthy identity functioning and a better understanding of the identity dysfunction in its pathological context.

### **An interdisciplinary approach**

Such a method requires, as a necessary corollary, an interdisciplinary approach to identity. We tried to produce a synergic redefinition of experienced identity by comparing three specific conceptual frameworks - philosophy, psychology and neuroscience - in order to have them interact. Indeed, these three disciplines conceptualize experienced identity and its disorders in a perspective of its own, which our conceptualization should be able to account for in a single comprehensive theory in order to be as powerful as possible. Thus, philosophy first defines identity as a logical property of objects. The principle of identity provides the possibility of knowledge of the world through concepts because it defines an ontology in which objects are, in one respect at least, identical to themselves over time. If no object remained identical to itself in one respect at least, our concepts would fail to grasp reality. Most of the time, this leads to a separation between an immaterial identity principle of the body in perpetual change to ensure the diachronic persistence of the individual. When philosophy tries to deduce a cerebral substrate, it is

most often without the neurological understanding of the mobilized functions, so that this theoretical development runs the risk of not having any real clinical application. Psychology, as a science of the mind, adopts a first-person perspective: identity refers primarily to a relation with the self, tinged with emotion and loaded with a very individual meaning, so that it does not simply rely on a definition using concepts - definition that may miss the individuality in what makes it so peculiar. Finally, neuroscience, understood here as brain science, adopts the opposite perspective, assuming that experienced identity is only a strictly scientific object if, in one way or another, it is possible to relate its function to a physiological process observed in the third person. Since we aim at constituting a philosophical conception of identity that would nevertheless be capable of integrating the dimension of psychological experience while relating it to a physicalist conception of the human being, these three disciplines form the theoretical and interdisciplinary framework in which we will dialectically formulate our conceptualization of experienced identity.

## **Theses put forward**

### **Identity in time is plastic and dynamic**

In this work, we will defend two main theses, respectively on the temporal dimension and the bodily dimension of experienced identity. For the first of these dimensions, we will maintain that, in order to get closer to the exact subjective modalities of the experience of my diachronic identity, this experience must be understood in the performative form of self-recognition within a temporal synthesis that punctually brings me face to face with a past state of myself. Such a conception, which will be illustrated with the experience of the madeleine as reported by Proust, will enable us to counter the conception - firstly conceptual – of diachronic identity as the necessary continuity of its object. Indeed, we believe that such a view, derived theoretically from a logical definition of identity as a relationship of invariability with oneself over time, lacks the notion whereby human experience is first given as becoming rather than immutability. We will suggest the development of a dynamic (through a process of constant updating) and

plastic (able to incorporate significant changes) conception of the diachronic identity as it is first subjectively experienced by the individual. This redefinition of diachronic identity, put forward in a subjective perspective at first, will be related to a physiological reality of a cerebral nature, so that its hermeneutic power can be tested with an inductive approach, developed using a specific case of experienced identity disorder affecting the temporal dimension: Alzheimer's disease (AD). Thanks to the dialogue between our concept and the reality of a diachronic experienced identity disorder, we will demonstrate the speculative and practical benefit of our first redefinition.

### **Human identity is bodily in two ways**

The second thesis of this work deals with the relation between identity and body: it consists in interpreting experienced identity in a twofold bodily dimension. Indeed, on the one hand, in accordance with our physicalist postulate, experienced identity will be related to a physiological reality of a cerebral nature. In this sense, being able to relate to oneself means showing, in terms of first-person experience, a capacity (reflective consciousness) made possible by brain activity. Thus, abstracting an immaterial identity principle of the body, such as the Cartesian soul, pointing to the fact that the body is constantly changing, is not only no longer justified in a dynamic and plastic conception of diachronic identity, but also amounts to making the causal interaction of immaterial reality with the body impossible to explain, whereas this interaction appears to be obvious in voluntary action and in the conscious perception of healthy subjects as well as in the correlation of brain damage and experienced identity disorder in pathological conditions. In a functional sense, identity is thus a subjective experience influenced by bodily reality, understood here as primarily cerebral.

However, we believe that reducing experienced identity to its brain condition still lacks the notion of the body as a meaningful whole for the individual that I am. In this sense, my experience of identity is intimately conditioned by this particular body of mine, both by its objective qualities (size, flexibility, etc.) and by its symbolic qualities (beauty, charisma, etc.). Contrary to what occurs with a conception of identity in which the body is considered as the functional receptacle of an identity principle, we suggest that my



experienced identity is influenced by the fact that my body is the way it is. Thus, the representation and subjective meaning that I associate with my own body would be two essential components of my experienced identity. We will evaluate this concept of bodily identity through its experimental comparison with a pathological condition, the locked-in syndrome (LIS), which involves a major objective change of the body through the loss of all motor control, with the exception of oculo-palpebral movements.

## **Outline of the line of argument**

### **Part One: The three main problems about identity**

This work consists of three divisions. In the first part, we shall focus on the three major theoretical issues that the philosophical thought faces when considering experienced identity, in order to define the conceptual framework within which our redefinition of the concept shall take place. (1) It seems essential to immediately pose the paradox of a logical definition of the identity of people subject to becoming as a relationship of invariability with oneself over time: how, then, can we account for the experience of an identity that is tested, not independently but within the context of the changes, both psychological and physiological, which affect the individual? Our initial analysis will focus on the evolution from a logic identity defined by invariability (see Plato and Parmenides) to an identity which is multiple but not truly dynamic thanks to the interplay of the different meanings of the being in Aristotle. (2) The second problem stems from the first one: since it is undeniable that our body is constantly changing and that knowledge through concepts always misses the particular, how can we understand the inclusion of an identity principle in an individual and embodied being? This question will be explored using Descartes' work. Both complex – according to the modality of experienced union - and firm - with the distinction of two distinct substances - Cartesian dualism marks the question of the identity of the mind with the brain even in the most recent impacts and thus constitutes a heritage both rich and complex for the formation of a physicalist conception of identity. (3) Finally, within our physicalist perspective, we shall



clarify why and in what sense it is possible to suggest a physiological conception of the processes first experienced by the subject in the first person. Based on the eliminative argument, which crystallizes the more clear-cut oppositions on the issue, we shall identify the key issues of the physicalist perspective which tinges our whole approach. Based on this diaporematic study, the following two parts will display a specific conception of experienced identity.

## **Part Two: Identity and time**

The second part of the thesis focuses on the temporal dimension of identity as the ability to recognize oneself as "the same" being over time, so as to respond to the shortcomings (identified in the first part) of a logical conception of diachronic identity applied to beings in change. This analysis seeks to better reflect the mental experience encompassed by our intuition of continued identity, while trying to relate it to a brain function. Locke's model, which proposes to base diachronic identity on a continuum of consciousness extended to the past through memory, seems impractical when it comes to applying it to real living subjects. In this sense, since sleep, mild forgetfulness as well as more severe amnesia, can disrupt the continuity of my mental life as supported by memory, doesn't the criterion of continuity, just like that of invariability, represent an excessive and purely theoretical requirement of personal identity? We shall try to conceptualize the diachronic identity beyond the breaks, within the framework of a philosophy of becoming, not as a continuous and linear accumulation of my past but as recognition of the self delivered in the experience of a punctual temporal synthesis driven by my present as it supports some of my past in its current project. In order to test the role of memory continuity in the sense of identity as experienced in the first person, we shall then present an experimental protocol developed, for this work, on Alzheimer's disease: since patients suffering from AD suffer from significant memory problems, how is their identity structured in view of this discontinuity? The achievements of these first two stages will then be used as a conceptual basis in the search for the minimum requirement of identity continuity as it appears among the most contemporary naturalist theoreticians of identity, through the issue of individual survival in several works of fiction dealing with the concept of identity.

### **Part Three: Identity and body**

The third part of the thesis sets out to conceptualize the bodily dimension of identity by showing in what sense it is possible to consider that the body is the key modality of lived human identity. First, since there is no immaterial principle in a physicalist theory of identity, the body, and in this sense especially the brain, is the condition for the physiological possibility of my identity experience at the psychological level. Also, this body of mine, through its individual characteristics, determines my being in the world and thus determines my phenomenal experienced identity, this time as a bodily whole irreducible to the brain. We shall first analyze theoretically several philosophical models that seek to conceptualize that reality of human identity which is always embodied: focal unity of my being in the world, elementary phenomenological modality structuring my agentivity or innate body schema, the role the body becomes crucial in the thought about identity, both in the cerebral possibility of a experienced identity and in its symbolic modality, as experienced by a psychological subject. Following the same experimental method as in the second part, we shall present here the second empirical work completed for the thesis through the investigation of identity functioning in patients suffering from a complete paralysis of the body without cognitive disorder. Is this body, which is unable to mediate my will, still mine or can I do without the body on behalf of the continuity of my cognitive functions? If identity is a dynamic process, if it is true that it is always performative rather than already given, then we find the means to view the ownership of the body primarily as a significant act in the first person in which otherness is turned into one's own. The remaining task then consists in justifying that such a theory of identity, because it describes me entirely in bodily terms, does not exclude the meaning of my liberty or the possibility of morality, as determinism has often feared.

The objective of this work is then as follows: to give shape to a physicalist concept of personal identity that reflects experienced identity in the first person.



## Part One: The three main problems about identity

First of all, we have to bring out the main difficulties and what is at stake in the concept of identity. To this end, the first part of the thesis analyses successively three major problems that form the keystone of our approach to identity. (1) Logical identity is thought of as a relation of invariability to the self over time, which contradicts the *becoming* nature of man. (2) Because of its material nature the body evolves. Deemed too changing, it was set aside from the reflection on identity, which proves to be problematic when we consider experienced identity, as man's form of existence is always already embodied. (3) Identity as it is experienced subjectively was set as a mental phenomenon, irreducible to an objective physical reality, which prevents the creation of a physicalist concept of identity. The experimental protocols of the two following parts are based on this first study of the notion. They aim at testing empirically the difficulties which are dealt with in theoretical terms here, thus allowing us to put forward a new conception of experienced identity.

## Part Two: Identity and time

The question of human identity was structured on the basis of three lines of tension: (1) thinking of diachronic identity as becoming rather than invariable, (2) thinking of the identity of a person as always already embodied, (3) thinking of identity as the place where psychological experience and physiological knowledge meet. Therefore, we have to put forward a conception of identity such as it answers these three difficulties, the first dealing with the connection between identity and time, the second with the connections between identity and the body and the third with a methodological principle that we will have to think alongside with each of the first two issues. In this second part, we will address the first of these difficulties while respecting the methodological principle set in the third one.

Having shown that the logical definition of diachronic identity, as a relation of invariability strict to itself (strict continuity model), would not correspond to the subjective experience of a changing being, we will focus, in this second part, on presenting a new conception of diachronic identity, on the basis of both the psychological subject's lived experience in the first person and the knowledge of the mental structures which can account for this experience within the framework of a physicalist theory of identity. To this end, we will identify a specific relation to time, not continuous but plastic, as this is the condition of the identity experience of self-recognition. We will then define experienced identity as the experience of self-temporality, by which the person builds himself/herself as a becoming individuality. In keeping with our methodological principle, we will then confront this theoretical concept to an empirical situation which involves a diachronic identity disorder. Thanks to an experiment led among patients with Alzheimer's disease, we will empirically demonstrate that (1) experienced identity can be retained in the absence of a continuous relation to autobiographical time - which would be impossible if identity required a strict continuity of its object - (2) that it remains in the form of punctual self-recognition integrated into a changing identity project - rather than in the form of a cumulative identity resulting from a no-longer evolving narrative continuity - and (3) that it seems to be fundamentally based on bodily experience.

## Part Three: Identity and Body

In the second part of this work, we examined a first problem - that of a diachronic identity open to becoming. In this third part, we will focus on solving the second difficulty – thinking of the identity of a being always already embodied - while keeping the third difficulty - considering it in a physicalist context which accounts for the moral issues identified in the first part.

Based on the work already carried out, it seems necessary to consider human identity as a mode of being in the world mainly embodied, i.e. to support the idea that, for everyone, being who they are is a process experienced through the body : not only as a physiological condition of one's psychological experience - in which case a person's identity could be reduced to his or her brain - but also, more deeply, as the whole of an experienced body, from its most objective materiality (size, weight, suppleness, handicaps) to its most symbolic dimension (beauty or ugliness, charisma). My body, and especially my face, is the image of my identity in social life. In this sense, my body is my interface modality both with the physical and the social world. It is in this sense that the body is the very modality of experienced identity as a being in the world. As a consequence, thinking that identity can be retained as long as mental capacities are preserved independently from the body in which they are set, as Locke suggested – « For the same consciousness being preserved, whether in the same or different substances, the personal identity is preserved »<sup>5</sup> (chapter 4, p.142) – seems to utterly miss the reality of experienced reality.

We will first analyze theoretically some models of the bodily self proposed by contemporary philosophers, while insisting on the risk, from a physicalist perspective, to reduce the experienced body to its objective materiality without being able to know how to account for the subjective experience of being in my body. Then, we will test the empirical efficiency of our new concept of bodily identity (as a mode of being in the

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<sup>5</sup> LOCKE, J. (1689), *Essai philosophique sur l'entendement humain*, Paris, Vrin, 2001, II, 27, § 10, p.524.



world both in a material and a symbolic way). We will do so thanks to a second experiment, led this time with the cooperation of patients suffering from the locked-in syndrome (total paralysis of the body with fully operational cognitive functions), in order to demonstrate that their experienced identities do not only refer to their minds but are still first and foremost determined by their experienced bodies, according to a modality related to both the representation of one's own body and the psychological investment of the subject. Finally, we will briefly present how our conception of identity, as developed throughout this work, makes it possible to answer the main objections generally addressed to physicalist theories, namely the possibility to lay the basis for morality and freedom of will, in order to give us the means to refute any dualist theory of identity down to the implicit issues at stake.

## General Conclusion

“For self-knowledge would certainly be maintained by me to be the very essence of knowledge, and in this I agree with him who dedicated the inscription, "Know thyself!" at Delphi.”

Plato, *Charmide*, 164d<sup>6</sup>

If philosophical work seeks to base wisdom on self-knowledge, then the question “Who am I?” is fundamental. We have presented one of the possible answers to that question, an answer marked by the contemporary scientific context as well as the singularity of the author of this thesis, for the essence of experience consisting in being oneself cannot be reached through impersonal work. However, and this was the main issue of this work, individual subjectivity must become an object of science in order to avoid the solipsism of introspection and appear as an intelligible concept, in all its experienced complexity. In keeping with this particular perspective, our research fully accepted the identity claim to designate an experience in the first person while trying to give an account of this experience within the framework of a physicalist theory of man.

Our methodological requirement was twofold. On the one hand, we wanted to propose an experimental overhaul of the concept of experienced identity, by confronting the existing philosophical theories to the real empirical situations they must account for at the conceptual level. Our work consisted of three steps: first, the bases of a purely conceptual definition of identity were presented in all their complexity so as to identify the operating difficulties of these models. Then a new conceptualization of identity was proposed, seeking to remedy the shortcomings previously identified. Finally, the confrontation of our concept to pathologies involving identity disorders, through the development of two original research protocols dealing respectively with Alzheimer's disease and the locked-in syndrome, led to some changes whose power, both hermeneutic

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<sup>6</sup> PLATON (1940), *Charmide*, 164d, in *Platon, Œuvres complètes, I*, trad. L. Robin, Paris, Gallimard, Bibliothèque de la Pléiade, p.269.



and practical, was evaluated. On the other hand, our entire approach was meant to propose a conceptualization of identity that holds together its subjective dimension, as experienced in the first person by a psychological subject, and its physical dimension, as conceptualized in the third person by the epistemologist. In order to be complete and appropriate to the nature of its object, a theory of identity must account for these two dimensions. Assuming a physicalist postulate, we set these two approaches - which are epistemologically distinct from an ontologically identical object - back in the reflexive structure of man as it may be related to brain activity, thus enabling us to account for them within a unified theory of experienced identity. The results of this work, both conceptual and practical, seem to attest to the legitimacy and effectiveness of our approach. After this redefinition process, we shall recall the main arguments that guided the movement.

The first part of this work helped define the conceptual and theoretical framework by identifying the main difficulties caused by the concept of experienced identity. We spotted three major problems which then guided our conceptual development: (1) Logic identity is conceived as a relationship of invariability with oneself over time, which conflicts with the *becoming* character of man. (2) The body, considered too changing due to its material nature, was dismissed from the reflection on identity, which is a problem when it comes to experienced identity, as man's mode of existence is always already embodied. (3) Identity as subjectively experienced was asserted as a mental phenomenon, irreducible to an objective physical reality, which prevents the formation of a physicalist concept of identity.

The first of these problems was brought back to a logical conception of identity as a relationship of invariability with oneself which fossilizes the being in time to make him or her accessible via knowledge by concepts. However, we felt that the lived experience of identity defies this conception in two ways: that of the individual, first, since everyone considers themselves unique in what makes their innermost identity, and that of becoming, since we don't experience an un failing invariability that would define us from birth to death as much as we experience a constant updating of the very idea of who we are over the years. The second part of this work is based on this first analysis and consists of the explanation of how identity works over time, apart from a fixist ontology. This first

analysis was also at the origin of a methodological principle by specifying the rules for the experimental use of the concept, in order to create knowledge by concepts that would never lose touch with the reality it makes conceivable, so as to avoid the creation of purely conceptual entities. Finally, attention was drawn to an implicit moral issue raised by an idealist conception of identity: this issue represents a real challenge for a competing theory – the latter must therefore rise to in order to be fully able to refute it.

We analyzed the second problem in the context of Descartes' dualist theory, which opposes an immutable identity principle to a changing physical nature. In this sense, human identity would be guaranteed by the soul despite the vagaries of the body. However, Descartes introduces an interesting precision by distinguishing speculative knowledge of identity, as conceptualized in a dualist system from a experienced identity experience, which is given by the specific modality of a soul-body union. This leads to a first definition of identity as a reality engraved in an individualizing bodily experience. However, Descartes keeps a difference in nature between the soul and the physical world - governed by the mechanism – in order to preserve, above all, freedom of the will as causality independent of the laws of nature. Based on this second analysis, the third part of this work explains the physical nature of the identity principle, including its most subjective body experience. This second analysis also confirmed that the possibility of a physicalist conception of identity needed to be demonstrated. We set out to do it in the study of the third problem mentioned above. Finally, another issue was at stake in a dualist theory of identity: the ability to account for freedom of will; this issue had to be taken into account within the framework of our theory.

Finally, we sought to address the third problem by placing our research in the context of the most radical theory of physicalism, in order to explain in what sense and for what reasons it is possible to think of experienced identity as the psychological manifestation of a physiological state, cerebral in this case. The adoption of this hermeneutic framework was justified by three arguments: firstly, scientific evolution follows a global movement that naturalizes mental functions; secondly, being able to correlate theoretical models with physical reality is a methodological advantage for an epistemology; and lastly - this is the requirement that guides our work, justifies it and

singles it out - a physicalist conception of identity is efficient, both at the hermeneutic and therapeutic level, when applied to the understanding and treatment of pathological disorders related to experienced identity.

At the end of this first part, we were thus able to clarify the purpose and method of our redefinition of the concept of identity: we proposed an experimental conceptualization of the identity concept based on the empirical study of two identity disorders – this conceptualization being able to incorporate subjective experience in a physicalist explanation and to take into account, within the same framework, the underlying issues of morality and freedom of will.

In the second part of this work, we developed in more practical terms what a conception of diachronic identity would be if it did not fossilize its object in time by the assertion of an objective principle of permanence. In order to do so, we highlighted the difficulties that arise from a strict application to man of the continuity criterion before proposing an overhaul of the concept, guided primarily by the requirement to account for a deep foundation of human experienced identity in a becoming. According to us, the relation to the self over time takes less the form of a perseverance than that of a self-recognition, both dynamic (through a process of constant updating) and plastic (able to incorporate significant changes), in the form of a punctual temporal synthesis. Thus, we felt that the *madeleine* experience reported by Proust was emblematic of a current resurgence of a past form of the self within the present project itself. Identity, in this sense, is less guaranteed by the linear accumulation of my past in autobiographical memory than by the possibility, determined by my plan for the future, to recognize myself, in a global and punctual way, in a certain actuality of a precise moment from my past.

It is this theoretical model of how the identity works over time that we wanted to assess through the development of an interdisciplinary protocol tailored to determine empirically if our new concept had greater operative power than the one we refuted. Alzheimer's disease was chosen because of the major autobiographical memory disorders observed in these patients. Indeed, according to Locke's conception, such disorders should make all experienced identity impossible since the subject fails to maintain a memory

unity. Our results suggest, first, that experienced identity can be maintained in the absence of a continuous relation to autobiographical time and, on the other hand, that it remains so in the form of punctual self-recognition integrated into an identity project in the making. Our concept thus makes it easier to reflect the reality of identity disorders as they occur in a pathology directly affecting autobiographical memory. However, apart from its greater hermeneutic power, our concept also demonstrates a therapeutic power that follows directly from its physicalist conceptualization. It is because we conceive of diachronic identity as leaning on the brain ability to recognize the self (mirror self-recognition test with one's own face) that we can suggest a way to maintain the experienced identity of demented patients via a regular confrontation with the mirror.

Moreover, it is clear from this first experiment that there is a very resistant bodily foundation for the experienced identity of demented patients so that further work was focused on this bodily dimension of experienced identity. We analyzed several theoretical fictions designed to test the importance of the body in the survival of the individual. This is a complex formulation of the identity problem for at least three reasons. First, we talk about a diachronic identity as it deals with the survival of an individual at T0 and T +1, but the aim is to establish that survival on the basis of the body criterion since the experiments concern body manipulation. Finally, all these models are drawn from science fiction rather than science so that they rely on imaginary physical laws that make any empirical relevance questionable. Based on these analyses, we drew a distinction that subsequently guided our conceptualization of body identity in the third party, namely, the temptation - in a physicalist perspective - to reduce the identity of an individual to his or her brain rather than to understand it as an experience of the whole body. We believe, on the contrary, that experienced identity is not just bodily in the sense that it is physical but is also bodily in the psychological perspective of the subject in the first person, that is to say as an experience of that specific body.

In the third part of this work, we proposed a redefinition of the concept of experienced identity in its relationship to one's own body. Neither neutral receptacle nor simple physiological condition of my identity, the body is the very modality of my experienced identity. Several philosophical models suggested that body identity be

defined by using agentivity, in the sense that my body would primarily be an agent capable of a motor action in the world. Others focused on the mode of the body by the subject, placing identity within the limits of one's own body in relation to the other's body. Finally, others related body identity to the mere prospect of the first person as defined by a single spatiotemporal location. It seems that all these models still lack the psychological modality according to which I refer spontaneously to my body: these models are perhaps too physicalist, in the sense that they forget that the body is first experienced subjectively, rather than through objective functions. These models must be confronted with the practical experience of the body in both its psychological dimension (my body makes sense to me) and its plastic dimension (I shape my identity based on the changes in my body and not in spite of them).

In order to empirically test this concept of bodily identity, we developed a second experimental protocol, conducted this time with the cooperation of patients suffering from the locked-in syndrome. The locked-in syndrome was chosen because it represents a major traumatic event for body identity (total paralysis of the body except for oculo-palpebral movements) – traumatic both in its active dimension and in its symbolic meaning. If the body is crucial in experienced identity, such a change should have consequences on the experienced identities of the patients questioned. Our results tend to confirm, in the bodily dimension, what we had found in the temporal dimension, i.e. experienced identity may integrate significant changes in the objective body, thus confirming our definition of identity as a dynamic and plastic relation to the self. Furthermore, this protocol is innovative as it reverses the supposed relationship between body and identity by showing that the experienced identity of patients is closely related to the representation they have of their bodies. Thus, their identity is not preserved in spite of body changes but in relation to these changes, which again confirms the possibility to deduct therapeutic recommendations from the concept overhaul, namely to increase body care to achieve two purposes: motor recovery and a subjective appropriation of the body. Finally - and this is a major issue for our second methodological requirement, i.e. considering together the experience in the first person and the conceptualization of identity in the third person - our results show that bodily identity is experienced following a strong subjective modality that might distort our approach if the latter, in the name of a

physicalist theory, tried to conceptualize identity from a third person perspective only. We must therefore comply with both our requirements: to account for subjective experienced identity and to do so within a physicalist explanation.

The last section was devoted to the consideration of the issues involved in a dualist theory of identity, in the form of both freedom of the will – as causality independent of the laws of nature - and morality - as the value of free acts. It is important, for any physicalist theory proposing to replace a dualist theory of identity, to show how a materialist conception of man does not prevent man from giving meaning to his freedom or to guarantee the sense of a morality in his actions. With this in mind, we showed how freedom and moral judgment could be related to the reflexive structure of self-awareness, as it allows the subject to consider himself at the same time in the first person, according to his immediate desires, and in the third person, according to a sense of desire as it may be perceived and experienced by others. It is only thanks to this brain function - experienced psychologically as a rational power opposed to bodily drives although it finds its existence in the very body - that man can develop as a free and moral subject. As a result, the physicalist conception of identity that we proposed is not opposed to the issues that justified the reluctance of the dualists, but can actually account for them.

Having demonstrated a greater hermeneutic power than previous conceptions through the empirical confrontation with actual identity disorders (which, in addition, allowed us to account for experienced identity in the first person and a bodily foundation of identity, within one theory) it seems that our concept of experienced identity answers the two methodological requirements that guided our work. Experienced identity conceptualized within a physicalist theory - as, on the one hand, a relation to the self both dynamic and plastic, given in acknowledgement of a synthetic temporality of one's own and, on the other hand, as a reflexive experience of one's own body as a significant whole - is a purely epistemological concept, engraved in a conceptual framework both philosophical and operational in its scientific application. We believe that forging epistemological concepts within an interdisciplinary dialogue between philosophical



Dissertation Abstract

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The Self and the Other : the concept of identity in the first person perspective



theory and medical practice is a way to participate, as epistemologists, in the development of the scientific spirit.