Touching the World as It Is

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ABSTRACT

The aim of the present paper is to suggest an alternative view to the conventional distinction between ontology and epistemology, thereby reconstituting the relationship between the cognitive self and the real world. More specifically, we will criticize the distinction by shedding light on a peculiar character of the body, which can provide a critical perspective against Cartesian dualism. Furthermore, we will give a sketchy description of the philosophy of touch, and propose the notion of skin-self, or self-manifesting self, as a radical alternative to the modern conception of self.

1. Introduction

Historically speaking, one of the most persistent problems in philosophy is what the real world is and how we can know it. Ancient philosophers did not doubt that they directly perceived the world and things in it in front of them with their sensual organs. Modern philosophers, like Descartes, Locke, and Hume (among others), thought that we could only know them as mediated by mental representations. More recently, against the background of the progress in natural sciences, some argues that cognition of the world is realized in terms of the brain representation.[1]

The problem is about the status and relation of the cognitive subject to the real world. Though often treated separately, it is inherently not just epistemological, but ontological. The aim of the present paper is to criticize the prevailing idea that clearly uncouples epistemology from ontology, and to

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[1] However, the modern line of thought which provokes the brain-in-the-vat hypothesis and the argument from illusion does not necessarily fit every our experience.

(re)constitute a comprehensive view on the relationship between the subject and the world.

More concretely, we will

1. give a brief historical review of ontology and epistemology in terms of the ideas of contact and mediation,
2. argue that a specific difficulty of the epistemology in the modern era looms large in cognitive sciences,
3. consider the idea of natural self in order to overcome it,
4. approach the realm of intersection between the cognitive subject and the real world by way of deploying the metaphor of touching, and
5. suggest a new theory of self.

2. Contact and Mediation

2.1. Intentional species and contact

Aristotle famously thought that knowledge consists in the correspondence of ideas in the mind with objects in the outer world. Knowledge, he maintained, is possible because our mind directly seizes the essence of things.[2] Thus, when we see a red apple, the redness itself exists in the world. Plato held that phenomena in front of us were secondary ones in that they derived from the ideal order beyond our perceptual cognition. None the less, he did not doubt that the phenomenal world could be directly experienced through perception. Scholastics believed that humans had direct contact with the real world. Intentional species [*species intentionalis*] — more precisely, ones mocked by Descartes — were like flakes coming from, and similar to, external objects, and seeing things was supposedly the eyes' (or mind's) having contact with them.[3] Put another way, intentional species were considered to impress the simulacra of things on the eyes, the organs of recognition. In short, epistemology until the Middle Ages was modeled after tactile sensation. This line of thought has some affinity with what we call «naïve realism» or «direct realism» (Searle, 2015, p. 15).

[2] See Aristotle, 2010, p. 89-90.

[3] Merleau-Ponty places a great value on the conception of «intentional species» in his *L'Œil et l'esprit*, whose main theme is to criticize the ontological dualism and Cartesian epistemology. In La Structure du Comportment, when he talks about «the realism of the sensible which has been abandoned since Descartes» (Merleau-Ponty, 1942, p. 206.), he is referring to this conception. The present paper is aimed at developing that realism on a contemporary setting.

2.2. Ontological dualism and subject-object schema

Ontological dualism and subject-object schema:
Cartesian ontological dualism divided beings into two kinds of substance: *res cogitance* and *res extensa*. This led to the rift between the human mind and the world, which brought in a corresponding way about the subject-object schema in epistemology. It involved, however, an epistemological difficulty. According to this conception, the cognitive subject cannot directly recognize real things (objects). Recognition of an apple, for instance, is mediated by its representation with an accompanying mathematical form. True reality can be captured only through representations and mathematics. The mind, which is separated from the body, cannot have direct contact with the real world. An idea in the mind is an internal representation of the external reality and, as such, is separated «from the body and the world» (Lakoff and Johnson, 1999, p. 94). Those ideas were called «impressions» by Hume, and «sense data» by philosophers in the twentieth century (Searle, 2015, p. 21).

The epistemological schema of subject-object, which is based on ontological dualism, is closely related to indirect realism and mediational theory. Indirect realism, laid down clearly by Descartes and inherited by the analytic tradition, has an affinity with representationalism and objectivism. According to them, things are independent of any human understanding. The world is composed of the whole things, which are independent of the activity of cognition, clearly determined in advance, and exist in themselves. However, if the world and the mind or the subject have a different mode of existence, the question will occur: how are they correlated with each other?

2.3. *Camera obscura*, representation, and the mathematized world

Dioptrique is of great importance in understanding Cartesian epistemology. It shows that Descartes employed visual perception as a model for our cognitive activity. He likened the mechanism of vision to that of a *camera obscura*.

> Suppose a chamber is all shut up apart from a single hole, and a glass lens is placed in front of this hole with a white sheet stretched at a certain distance behind it so that the light coming from objects outside forms images on the sheet. Now it is said that the room represents the eye; the hole, the pupil; the lens, the crystalline humour, or rather all the parts of the eye which cause some refraction; and the sheet, the internal membrane, which is composed of the optic nerve-endings. (Descartes, 1963, p. 686)

Generally speaking, «[d]uring the seventeenth and eighteenth centuries the *camera obscura* was without question the most widely used model for explaining human vision, and for representing the relation of a perceiver and the position of a knowing subject to an external world» (Crary, 1990, p. 27). *Dioptrique* is a study of human vision and visual enhancing apparatuses, such as a lens and a macro scope. As the opening phrase of «sight is the noblest and most comprehensive of the senses» in *Dioptrique* suggests, vision is the very engine of our cognition and sometimes identified with the mind in the modern era.

To use Don Ihde′s expression, a *camera obscura* is an «epistemology engine» which is «a technology or set of technologies that through use frequently become explicit models for describing how knowledge is produced» (Ihde, and Selinger, 2004, p. 362). This model may be illustrated as follows: There is a camera device with a homunculus sitting inside it. The homunculus stands for a subject or mind. And there exists an ideal observer, who can supposedly see things both inside and outside of the camera and determine whether the correspondence between them holds or not.

Though Cartesian epistemology presupposes, as mentioned above, that mind and body are completely separated, Descartes says in the Sixth Meditation that «[a]s for the body which by some special right I called ` mine′, my belief that this body, more than any other, belonged to me had some justification» (Descartes, 1967, p. 485). He also says that «the mind does not immediately receive the impression from all parts of the body, but only by the brain, or perhaps just by one small part of the brain, namely the part which is said to contain the ′common sense′» (Descartes, 1967, p. 500). There are a few points that I want to make about this passage.

This small part –– or what he calls «the internal membrane» –– where a homunculus receives information should be interpreted as the pineal gland, and the information reflected on it as representation. According to the epistemology modeled after the *camera obscura*, the reality exists independently of observers and has its own form of mathematical nature. It reflects itself onto the internal membrane where representations take place. Its mathematical form or regularity is conserved as long as the information is processed in the pineal gland. Descartes thought that the representations were not similar to the things in the external world; the essence of cognition is to understand the mathematical form of existence. Cartesian schema of cognition can be put as follows.

(1) external object => (optic stimulus) => eye ball => retina => optic nerves => pineal gland ---> perception in the subject (homunculus)

Cartesian epistemology has, at least, three major interrelated problems. First, the ontological status of the pineal gland is not clear in his theory. Since it is a part of the brain, and has its size and weight, we might say that it should belong to *res extensa*. If so, however, the second problem arises: how it can interact with *res cogitans*, which is the relation signified by "--->" in (1). And the third one is known as the problem of the homunculus. Even if the information can be transferred from the pineal gland to the homunculus, the process isomorphic to the one mentioned above would occur inside the brain of the homunculus. Thus an infinite series of homunculi would be involved in our perception, which is utterly implausible. If we can give a satisfactory solution to the second problem, the third one will also be dissolved. These problems concerning Cartesian epistemology are difficult to avoid as far as they presuppose mind-body dualism and the subject-object schema, in which two different realms are ontologically posited.

Descartes thinks that even basic cognition, like perception and sensation, occurs by explicitly representing the information from external things. In short, cognition in Cartesian sense is a higher one of the mind, as evident in the passage saying that «[f]irst, it is the soul which sees, and not the eye; and it does not see directly, but only by means of the brain» (Descartes, 1963, p. 710). In this context, the soul means the mind and the brain the pineal gland.

There is another feature characteristic of the *camera obscura* model. The perception was thought to be a static image, just like a snap shot, which was obtained from the ever-changing world. It contrasts remarkably with the epistemology in the Middle Ages, in which intentional species moving all around directly act on our perceptual organs.

In contrast, Descartes' conception of the outer world was simply mechanistic, which was largely influenced by a mechanistic philosophy of his time. He thought that *res extensa* as a physical object is a kind of machine and has a mathematical structure in itself. We can see here the emergence of mathematical natural philosophy.[4] Shapin encapsulates the scientific world view completed by Newton in modern Europe as follows: «the world-machine followed laws that were mathematical in form and that could be expressed in the language of mathematics» (Shapin, 1996, p. 61). Mathematizing the world

[4] See Shapin, 1996, p. 61.

completely drove out what Dreyfus and Taylor called the «contact theory» (Dreyfus and Taylor, p. 17 et al.) of cognition.

According to phenomenologists, like Husserl and Heidegger, this was the time when the world became associated with a mathematical image. The belief that natural sciences can provide a true description of the world which exists independently of our cognitive activity led to the idea of scientific realism.[5] It belongs to the tradition of a mechanical and quantified view of the world.

3. Computationalism and the Problem of the Homunculus

Cartesian dualism has left an unpleasant by-product, the mind-body problem: if mind and body are different beings, how are they related to each other in a human being? From an epistemological viewpoint, as seen above, it amounts to the problem of the homunculus. The mind-body problem has two faces: the ontological and the epistemological. A bunch of views has been proposed to solve this problem, among which physicalism is the most dominant. As brain science has progressed, its proponents have strongly espoused their ontology maintaining that mental states are based on physical states of the brain. Brain science explains about our cognition as follows:

(2) external object (optic stimulus) => eyeball => retina (rod cell and cone cell) [optical signal is transformed into electric one] --→optic nerve--→lateral geniculate nucleus--→neurons of the primary visual cortex of the occipital lobe===➔Perception (subject)

In the causal chain above, the problem remains: how physical states realized in neurons are related to mental states or perceptions? In other words, even if we can describe physical states of the brain in great detail and employ the ontology that only physical states --- brain representations --- exist, there still remains an epistemological gap between subjective events of mental representations and brain representations, which is the relation signified by "===➔" in (2). Again, the homunculus appears here. This means that even if physicalism could be the best possible view on the ontological aspect of the mind-body problem, it doesn't provide a satisfactory interpretation to the epistemological one. There is not much difference between physicalism and Cartesian dualism on this point.

[5] Several definitions have been proposed for realism. For a brief summary of them, see Fine, 1984, p.51f.; Putnam 1981, p.49; Lakoff and Johnson, 1999, p. 90.

Another possibly promising view on the mind-body problem is that of computationalism, a theory which has been of great influence in cognitive science. On this conception, the mind is a kind of digital computer which performs calculations following a certain set of rules. Physicalism and computationalism seem to go well together if you think of the events inside the brain as a kind of calculation. Wilsons writes;

> The computational theory of mind avoids the problem of the homunculus because digital computers that exhibit some intelligence exist, and they do not contain undischarged homunculi. Thus, if we are fancy versions of such computers, then we can understand our intelligent capacities without positing undischarged homunculi. The way this works in computers is by having a series of programs and languages, each compiled by the one beneath it, with the most basic language directly implemented in the hardware of the machine. We avoid an endless series of homunculi because the capacities that are posited at any given level are typically simpler and more numerous than those posited at any higher level, with the lowest levels specifying instructions to perform actions that require no intelligence at all. This strategy of FUNCTIONAL DECOMPOSITION solves the problem of the homunculus if we are digital computers, assuming that it solves it for digital computers. (Wilson, 1998, p. xxviii)

To think that human beings are a kind of digital computer is to think that they perform enormous mathematical calculations. Thus, for example, when you see a coffee cup before you and stretch out a hand to it, you are processing information in the following way. Your retinae receive a piece of information of two-dimensional pattern; your visual system creates a three-dimensional representation of the external environment including the cup; the representation is fed into the motor output system; and your hand is moved toward the cup with an appropriate angle and speed. As the quotation above states, this higher level information processing can be decomposed into a combination of simpler processes, which in turn can be reduced to enormous calculations of binary zero and binary one. Even a seemingly complicated task come down to the process of following a bunch of rules, which can be described as binary calculation, computationalists argue. Intuitively, however, the assumption that humans are a kind of computer is not so compelling. It is one thing that the human behavior is fitted to a computational model, and it is another that we in fact calculate. Furthermore, it seems highly implausible that humans do a bunch of calculations that are consciously inaccessible for them.

Computationalism is compatible with physicalism which reduces the mental activity to that of the brain. The computational theory of brain holds that the brain is a kind of digital computer and performs, in fact, mathematical calculations. Even if one is highly reluctant to think of humans as a kind of digital computer, it may feel less uncomfortable to regard the brain itself as such.

Suppose that a digital computer and the brain do perform mathematical calculations. How about other physical things? For example, how about the earth orbiting around the sun, a car turning around the corner, a flying ball forming a parabolic trajectory, a piece of material falling from the tall building under construction, a stomach during the digestive process? Do all of these perform calculations? True, these things are physical exactly in the same way as a computer and a brain. The problem is whether physical objects actually perform enormous calculation or their activities can merely be described by a model of calculation.[6] If you argue that the former is true, it must make sense to say that they perform, consciously or unconsciously, calculations with certain underlying motivation and intention. It is, however, implausible that a ball can have motivation and intention. In the same way, a computer, as well as a brain, reasonably cannot give senses to the world nor act spontaneously. Humans have an intrinsic intentionality, but the intentionality seemingly found in things other than humans exists only in a derived way, that is, dependent on the intrinsic one.[7] Things like a brain, a computer and a car seem to be intentional only because we play the role of the homunculus.[8]

4. Body as Natural Self and Retrieved Reality

Admitting that the seeming intentionality of a computer is due to our playing the role of homunculus, how can we get rid of this tiny being from our cognitive process? As a matter of course, a way out will be found if we can legitimately say that the cognitive subject directly perceives an external object. For that purpose, we must be sure that the cognitive subject and the external object are ontologically homogeneous; it was the ontological heterogeneity that invited epistemological difficulties like the problem of the homunculus.[9]

[6] See Searle, 1997, p. 111.
[7] See ibid., p. 113.
[8] See ibid., p. 119.
[9] Merleau-Ponty uses the term «kinship» in order to express the ontological homogeneity between the cognitive subject and the external object. See section 5 of this paper.

To understand the concept of ontological homogeneity and its relevance solution to the problem of the homunculus, we will consider Merleau-Ponty′s view in his Phénoménologie de la perception. He proposed a new type of being which is characterized as neither purely mental nor purely physical. It is a body as «the subject of perception» (Merleau-Ponty, 1945, p. 239) or «a natural self» (ibid., 199, 239, et al). The self in the Cartesian sense –– res cogitans –– is a personal one and reflectively seizes the outer situation including its own body by explicit representations. In contrast, the natural in «the natural self» means a physical property of the body as the subject of perception, which suggests a kind of homogeneity between the cognitive subject and the real world. Ontologically and epistemologically, there are significant differences between the two selves.

According to Merleau-Ponty, the body is something more than a physical entity, equipped with a distinctive property, that is, with an intentional, transcendental function of giving senses to, or constituting, the world. When employing the term «a knowing body [*un corps-connaisant*]» (ibid., p. 357, note 4), he has this function in his mind. It is not the same as the function of Cartesian mind. While the body as the subject implicitly and pre-consciously constitutes the world by itself, the Cartesian subject always does it consciously and explicitly. Merleau-Ponty called the act of giving senses in the body the ability of «I can» in contrast to the Cartesian ability of «I think» (ibid., p. 160). To use Searle′s phrase, it is «the intrinsic intentionality» (Searle, 1997, p. 113).

Let us consider Merleau-Ponty's view on the intentional function of the body. In the section of *Phénoménologie de la perception* entitled «the intentionality of the body», he wrote that to recognize things and behave is «to allow oneself to respond to their call, which is made upon it independently of any [explicit] representation. Motility, then, is not, as it were, a handmaid of consciousness, transporting the body to that point in space of which we have formed a representation beforehand» (Merleau-Ponty, 1945, p. 161). In another place, he wrote that «[f]rom the outset the grasping movement is magically at its completion» (ibid., p. 120), and that «[o]ur bodily experience of movement is not a particular case of knowledge; it provides us with a way of access to the world and the object, with a 'praktognosia..... My body has its world, or understands its world, without having to make use of explicit representations» (ibid., p. 164).

The quotation above shows that the notion of representation, which plays an important role in Cartesian epistemology, is utterly rejected. Descartes employed this notion for an epistemological reason against the background of

his ontological dualism. We should note that unlike Cartesian conception of cognition which is modeled after the *camera obscura* and static in nature, the embodied cognition is dynamic and necessarily accompanied by its bodily behavior. In addition, our body is not a slave of consciousness and does not follow explicit rules.

> If I stand holding my pipe in my closed hand, the position of my hand is not determined discursively by the angle which it makes with my forearm, and my forearm with my upper arm, and my upper arm with my trunk, and my trunk with the ground. I know indubitably where my pipe is. (Merleau-Ponty, 1945, p. 116)

Let us look at some other examples. When a skilled driver sees a car from the opposite direction, she never compares the remaining width of the road with that of her car. Such comparison would require her to represent, or calculate, them explicitly. In a similar way, we can usually hold a coffee cup on the table without any difficulty. We usually know in a tacit manner the layout and function of a familiar keyboard. These facts provide a strong criticism against computationalism, for they endorse the fact that perception and bodily behavior are performed without calculation or inference.

If we can say that human existence consists in the body with its intentionality, the mind-body problem would be dissolved. A human being is not a hybrid of the mental and the physical, but is made from one and the same material that has both properties so that we do not have to worry about an ontological relationship between the mind and physical objects. From an epistemological viewpoint, there is no room for a homunculus or for representations if we appreciate the fact that the body takes on the central role in cognition. Since the body as the cognitive subject «inhabits» (Merleau-Ponty, 1945, p. 162) the world and coexists with all of the things in it, it is not necessary to adopt the subject-object schema in epistemology. Cognition the body steers is not formed inside a *camera obscura* which is isolated from the world, but «in the midst of the world and as it were in the things» (Merleau-Ponty, 1964b, p. 176).

5. Phenomenological Theory of Sensation: Metaphor of Touch

Perception –– more generally, cognition –– is not mediated by representations, but occurs in the midst of the world and things. In order to explain this situation, Merleau-Ponty often employs a metaphor of touch. This is for the purpose of expressing that the cognitive subject directly contacts with the real world and of maintaining the familiarity between them against the modern conception of the

world. The scope of his work is broad, encompassing a thorough criticism against the quantification and mathematization of the world which has been encouraged since the modern era. «Blue is that which prompts me to see in a certain way, that which allows a specific movement of my gaze to touch it» (Merleau-Ponty, 1945, p. 243).

The metaphor of touch and movement vividly expresses the essence of visual sensation: an intimacy between the subject and the object. In *Le Visible et l'invisible*, vision is compared to the sense of touch more directly. «We could not access to a thing other than by touching it with our gaze» (Merleau-Ponty, 1964b, p. 173). Our gaze «envelops, touches, and coalesces with visible things» (ibid., p. 175). Vision is a palpation by eyes and «a remarkable variant» (ibid.) of touching. Furthermore, he talks about «kinship» (ibid., p. 176) among the body, things, and the world, maintaining that touching is a kind of «initiation» (ibid.) into the world. These metaphorical expressions not just give us a fresh look at our cognition, but suggest the shift of his interest from epistemology to ontology.

In later years, however, his view seems to be fluctuating. In *L'Œil et l'esprit*, he sharply criticized the Cartesian reduction of vision to a sense of touch which was delivered in *Dioptrique*, whereas in *Le visible et l'invisible*, he wrote: «[v]ision is a palpation by the gaze» (1964b, p. 175).

> [For Descartes,] it is best to think of light as an action by contact—like the action of things upon the blind man's cane. The blind, says Descartes, "see with their hands." The Cartesian model of vision is modeled after the sense of touch. (Merleau-Ponty, 1964a, p. 37)

Though both articles were written in the same period, there apparently is a certain contradiction between them. In order to dissolve it, one must understand what the sense of touch meant for Descartes. As mentioned above, in *Dioptrique*, the model of visual cognition is shaped by the situation in which a ray of light comes into the *camera obscura* — the snapshot model of cognition. The act of «the light which, ...commands our vision» (Merleau-Ponty, 1964a, p. 37) is inferred via the geometrical method. According to the Cartesian epistemology, the trajectory of light, including refraction and reflection, is analogous to the movement of a billiard ball; both can be grasped geometrically. Descartes went so far as to explain the action of light by using the metaphor of a blind man's cane. Put another way, he considered a sense of touch as something

geometrically comprehensible. One might call it a geometrically conceived touch, which is essentially different from Merleau-Ponty's conception of it.

As is clear from the following passage, Merleau-Ponty's criticism against Descartes extends to the epistemological scheme of subject/object, which is inextricably linked with the conception of perceptual space as a geometrical one.

> Space is no longer what it was in the *Dioptric*, a network of relations between objects such as would be seen by a witness to my vision or by a geometer looking over it and reconstructing it from outside. It is, rather, a space reckoned starting from me as the zero point or degree zero of spatiality. I do not see it according to its exterior envelope; I live in it from the inside; I am immersed in it. After all, the world is all around me, not in front of me. (Merleau-Ponty, 1964a, 58f.)

Here Merleau-Ponty raises an objection against the subject-object schema in epistemology as well as against the modern theory of perception based on the model of vision, or the snapshot model of perception.

Merleau-Ponty advocated an impressive thesis about vision: «[t]o see is to have at a distance [*voir, c'est avoir à distance*]» (Merleau-Ponty, 1964a, p. 27). At first glance, Merleau-Ponty seems to have rejected the reduction of vision to tactile sensation. Critics often try to endorse such an interpretation by focusing on the phrase «at a distance». In my opinion, however, the verb «have» implies, literally, a contact with the object. Though his wording of the thesis is seemingly self-contradictory, it will surely make sense once you understand that what he rejects is only the geometrical conception of touch.

6. Skin, Subject, and Otherness

6.1. Ontology of sensation

By employing the metaphor of touch, Merleau-Ponty tries to depict a landscape where epistemology and ontology merge into one. He aims at critically overcoming Cartesian ontological dualism and the subject-object schema in epistemology. In order to appreciate the significance of his endeavor, let us turn to the work of Nicholas Humphrey, a contemporary psychologist, who has developed his own theory of sensation focusing on touch.

Humphrey talks about a perception modeled after a vision and a sensation modeled after a sense of touch. He says that the prototype of sensation is bodily

actions and expressions.[10] Perception, however, does not seem to be based on bodily actions.[11] It «is the way he represents» what is happening out there «as a description of the outside world» (Humphrey, 2006, p. 92). Neurologically, the sense of touch is classified into the somatic sensation which links to the spiral cord. In contrast, the sense of vision is identified as a special sense which connects to the cerebral nerves. Considering these routes of the informational process, the sensation is naturally described as primitive and basic, while perception is characterized as a higher cognition.

According to Humphrey's «story about the evolution» (ibid., p. 84-85), the sensation is older than perception. Even a primitive, amoeba-like organism floating in the ancient sea has, he thought, a prototype of sensation. The outer world was sensed as the set of events occurring on the surface skin. Sensations in their prototype came about on the surface of a primitive organism which has only a sense of touch.[12] «A primitive animal responses like `wriggles′ against stimuli from outside» (ibid., p. 85). It seems reasonable to think that a sense of touch involves bodily actions. Berkeley, for instance, identifies having a body with having a sense of touch in his *A New Theory of Vision*.[13]

For Humphrey′s primitive organism, the distinction between itself and the outer-world would presumably be quite vague. While staying still, its existence would blend thoroughly together with the circumstances. The moment it moves, however, it would start to sense the world. It looks like a fetus with only a sense of touch.

Here, we will examine Merleau-Ponty's theory of sensation. It has a strong affinity with Humphrey's theory, as well as its original ontological considerations. «The subject of sensation is...a power which is born into a certain environment of existence or synchronized with it» (Merleau-Ponty, 1945, p. 245). In addition, every sensation is «the primordial contact with being» (ibid., p. 255). As we can understand from these words about sensation in *Phénoménologie de la perception*, Merleau-Ponty tries to depict the «primordial», «primary layer» (ibid., p. 254, p. 276) of our recognition of the world. His description suggests an ontological relationship between the sensorial subject and the world as well. «...the sensible has not only a motor and vital significance, but is nothing other than a certain way of being in the world...»

[10] See Humphrey, 2006, p. 81-82.
[11] See Humphrey, 2001, p. 987.
[12] See Humphrey, 2006, p. 87.
[13] See Berkeley, 1910, p. 33, p. 83.

(ibid., p. 245). This passage describes the way in which cognition, or perception, and Being are closely related with each other, which is precursive of the ontology in his later years. In *Phénoménologie de la perception*, he discreetly wrote: «[t]he sensor and the sensed do not stand in relation to each other as two mutually external terms»(Merleau-Ponty, 1945, 247). Later, he would boldly call their relationship «the dehiscence of the sensible» (Merleau-Ponty, 1964b, p. 190 note). The sensible, he says, is «a Being in dehiscence» (ibid., p. 170). It is out of this metaphysical posit that both of the sensor and the sensed come into the world. It means a decisive break with the dogmatic schema of subject-object in epistemology. A Being is a latent sensible. By the dehiscence of it, the seer and the visible, the touching and the touchable, in sum, the sensor and the sensed come into being. So, the sensing red [*Rotempfindung*] is neither coincidence nor fusion with red, but the dehiscence of latent red being.[14]

The above passage suggests how human cognition emerges in tandem with her ontological commitment. The world is supposed to be made of this hypothetical stuff, from which this kind of cognition (and the cognitive subject) comes into being. We can notice the ontological-genealogical implication in late Merleau-Ponty. He often speaks of «visibility» in order to express the possibility of cognition. Instead, one may talk of «touchability», or more generally of «sensibility». Merleau-Ponty's theory of sensation motivated by a metaphor of touch plays an important role in preparing his transition from phenomenology to ontology. Furthermore, the hypothetical stuff which the world and the subject share provides a basis for his theory of body-self. In the following section, we will develop the theory of body-self in some more details.

6.2. Skin and subject

The genealogical image which Merleau-Ponty and Humphrey share is reminiscent of the beginning of human life. It is as if an embryo gradually grows up in the womb and its skin becomes a first epistemic organ. «Touch is the first of the senses to develop, appearing when the embryo is less than three centimeter long» (Benthien, 1999, p. 13). After the birth, the newborn develops «the fantasy of a common skin with the mother, based on sensations in the womb [*die Phantasie einer gemeinsamen Haut mit der Mutter*]» (ibid.). At the same time, the newborn makes sure of the existence of others and external

[14] See Merleau-Ponty, 1964b, p. 170, p. 320.

things by a sense of touch. He differentiates himself from others through it, and thus builds a basis for his self-image.

Let us recall Condillac′s thought experiment in his *Traité des sensations*. The statue without sensations, which appears in that experiment, is endowed with five senses one by one, but it cannot talk about itself even given sight, smell, taste, and hearing. After getting a sense of touch, it finally verifies «a continuity of self» (Condillac, 1984, p. 91) with its hands. In a nutshell, the skin is not just the organ of cognition, but of existence. The epistemological and ontological emphasis on the skin is an antithesis against Cartesian theory of self, and indeed against the modern way of thinking. For Descartes thought that a human mind resides inside a machine-like body, which became a central belief of the modern philosophy ---- the mind as an invisible being, a ghost in the machine.

The medieval translation of Greek medical texts into Latin, including those by Galen, paved the way for the development of anatomy in the 16th century, and encouraged the representation of the body as a machine in the modern era.[15] As the skin was flayed, parts of the body-machine, like muscles, bones, and entrails, were given the light of the day.[16] «Since the Renaissance, the occidental thought has been obsessed with an epistemological theme: to know is to break an envelope in order to attain the core» (Anzieu, 1995, p. 31).

Now, when the brain science is advanced, the mind, which was supposed to exist inside of the body, allegedly dwells in the skull, or brain cortex. However, «in the embryo, the skin and the brain formed from the same membrane, the ectoderm» (Benthien, 1999, p.12). An organism, during the very early stage of development, «divides into ectoderm and endoderm.....skin and brain are made from this ectoderm at the same time.... skin and brain both are surface» (Anzieu, 1995, p. 31). Whether the subject, or the self, «is hidden inside or reveals itself on the outermost layer of the body?» (Benthien, 1999, p.31).

As Benthien writes, a bunch of idiomatic phrases and sayings convey «identity and self-consciousness» which are stored in languages.[17] And there are

[15] See Mandressi, 2006.

[16] Since the era of Galileo and Descartes, nature has been described as a complex machine, to which the human body belongs as a part.

[17] Die eigene Haut retten wollen [save one′s own skin; save one′s own hide], eine ehrliche Haut sein [be an honest skin; be an honest man], nicht aus seiner Haut können [cannot get out of one′s skin; cannot change one′s spots], aus der Haut fahren [run out of the skin; fly off the handle; lose one′s temper]sich in seiner Haut nicht wohl fühlen [not feel comfortable in his skin; be frustrated with his circumstances]. See Benthin, p. 14.

clearly two different ways of representation about skin: «the self as skin and the self as in the skin» (ibid., p.32). We can say that the representation of the self as inside the skin is a modern image par excellence.

However, it seems that the development of medical sciences, especially that of anatomy, played an ambivalent role in building the image of humans. They did largely develop the idea of the body as a machine in anatomical terms, while at the same time did not really contribute to working out how the mind works.

Freudian psychoanalysis referred to the subject, or the self, as a «superficial being [*Oberflächenwesen*]» (Freud, 1978). Hans Henny Jahnn, a German novelist, disrupts the conception of the modern self in a bizarre way.

> In his expressionistic early work, *Pastor Ephraim Magnus* (1919), a deranged "seeker" kills and dismembers a woman. In court he states that he eventually "peeled the skin off the face" because he believed that "a face had to be hidden behind this mask". But to his disappointment he found "only raw, bloody flesh". (Benthien, 1999, p. 44)

Merleau-Ponty, who was strongly influenced by Freudian thought, clearly stated that «I am my body» (Merleau-Ponty, 1945, p. 231). The body in this sense is not «the objective body» as an object of anatomy, but «the phenomenal body» (ibid., p. 123 et al.) as a subject of perception. To borrow Dainton's terminology, we can speak of it as «the phenomenal self» (Dainton, 2018). As I told above, the body in a Merleau-Pontian sense is sometimes called the body-subject. We might speak of it as a post-modern conception, which contrasts sharply with the modernistic one –– the body as an object or the body as a machine.

When taking above points into consideration, it is clear that the self, as Merleau-Ponty conceives it, is not behind skin, but manifest on the surface, or the skin. This interpretation should gain a better sense of Merleau-Ponty's theory of sensation, because his theory relocates the sense of vision, which is thought as the inner mind, onto the skin. As we will see below, Merleau-Ponty′s theory of otherness endorses, in a way, this interpretation.

6.3. Phenomenology of skin-otherness

Davidson gave a controversial argument about others' behavior and mental states.

> If the mental states of others are known only through their behavioral and other outward manifestation, while this is not true of our own mental states, why should we think our own mental states are anything like those of others? (Davidson, 2001, p. 207)

In general, skeptical challenges, like that of Davidson's, are hard to meet. If, however, it is knowledge by inference when Davidson refers to that given «through behavioral and other outward manifestation» (ibid.), he may be neglecting a more intuitional, or phenomenological, way of understanding.

Gallagher and Zahavi, who actively engage in cognitive science and highly appreciate phenomenological way of thought, especially that of Merleau-Ponty, write:

> The philosophy of mind based on analytic philosophy denies «that it is possible to directly *experience* other minded creatures; this is supposedly why we need to rely on and employ either theoretical inferences or internal simulations. Both accounts consequently share the view that the minds of others are hidden». (Gallagher and Zahavi, 2008, p. 183)

Their argument is deeply influenced by Merleau-Ponty's view. He gave an impressive description of the other's mind and the envelop-skin. «[W]e must abandon the fundamental prejudice according to which the psyche is that which is accessible only to myself and cannot be seen from outside» (Merleau-Ponty, 1997, p.175-176). «A face is a center of human expression, the transparent envelop of the attitudes and desires of others, the place of manifestation, the barely material support for a multitude of intentions» (Merleau-Ponty, 1942, p. 181).

It should be noted that Merleau-Ponty speaks of the other's mental phenomena with the word «envelop». Although confined to a face in this context, it can easily be applied to the whole body, since we use various parts of the body when expressing our mental states like anger, joy, and so on. In a nutshell, Merleau-Ponty holds the notion of «the self as surface-skin».

6. Concluding Remarks

We have discussed some of the problems with the ontological dualism set forth by Descartes, and those with the subject-object schema in epistemology based on Cartesian ontology. This epistemological framework, modeled after the

camera obscura, epitomizes the predominance of vision in modern philosophy. We maintained that the schema remains essentially the same in the cognitive science today, so that the latter is troubled, though inconspicuously, with the homunculus problem.

In order to cope with this knotty problem, we shed light on a distinctive character of the body --- «the natural self», as phenomenologists called it --- which can provide a critical perspective against Cartesian dualism. Furthermore, we gave a sketchy description of the philosophy of touch, relying on the writings of Merleau-Ponty and Humprey's theory of sensation, and in doing so, we showed a kind of homogeneity between the cognitive subject and the real world. Finally, we proposed the notion of skin-self, or self-manifesting self, which is a radical alternative to the modern conception of self. We believe that by developing the philosophy of touch, we can get a different look at the conventional distinction among ontology, epistemology, and the theory of self.

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REFERENCES

Anzieu, D. (1995) *Le Moi-peau*. Paris: Dunod.

Aristotle. (2010), *De Anima*. Translated, with Introduction and Notes Shiffman, M., Newburyport, MA: Focus Publishing/R. Pullins Co.

Benthien, C. (1999) *Haut*. Hamburg: Rowohlt Taschenbuch Verlag GmbH.

Berkeley, G. (1910) *A New Theory of Vision and Other Writings*. London: J. M. Dent & Sons Ltd.

Condillac, E. B. de. (1984) *Traité des Sensations*. Paris: Librairie Arthème Fayard.

Crary, J. (1990) *Techniques of the Observer: On Vision and Modernity in the 19th Century*. Cambridge, MA: MIT Press.

Dainton, B (2008) *The Phenomenal Self*. New York, NY: Oxford University Press.

Davidson, D. (2001) *Subjective, Intersubjective, Objective*. New York, NY: Oxford University Press.

Descartes, R. (1963, 1967, 1973) *Œuvres philosophiques*, 3 tomes, Paris: Éditions Garnier.

Dreyfus, H. L. & Taylor, C. (2015) *Retrieving Realism*. Cambridge, MA: Harvard University Press.

Fine, A. (1984) And Not Anti-Realism Either. *Noûs, 18(1)*, 51-65.

Freud, S. (1978) Das Ich und das Es. In *Psychologie des Unbewußtsein. Studienausgabe 3*, Hg. Alexander Mitscherlich u. a. Frankfurt a. M.: Fischer, 273-330.

Gallagher, S., Zahavi, D. (2008) The phenomenological mind: an introduction to philosophy of mind and cognitive science, 2nd edn. London: Routledge.

Humphrey, N. (2001) Doing It My Way: Sensation, Perception-and Feeling Red. *Behavioral and Brain Sciences, 24(5)*, 987.

Humphrey, N. (2006) *Seeing Red*. Cambridge, MA: Harvard University Press.

Ihde, D., Selinger, E. (2004) Merleau-Ponty and Epistemology Engines. *Human Studies*, 27(4), 361-376.

Lakoff. G., Johnson, M. (1999) *Philosophy in the Flesh*. New York, NY: Basic Books.

Mandressi, R. (2006) Dissection et Anatomie. In G. Vigarello (ed.), *Histoire du corps 1: De la Renaissance aux Lumières*. Paris: Éditions du Seuil, 327-350.

Merleau-Ponty, M. (1942) *Le Structure de Comportment*. Paris: Editions Gallimard.

Merleau-Ponty, M. (1945) *Phénoménology de la perception*. Paris: Éditions Gallimard.

Merleau-Ponty, M. (1964a) *L´Œil et l´esprit*, Paris. Éditions Gallimard

Merleau-Ponty, M. (1964b) *Le Visible et l'invisible*. Paris: Éditions Gallimard.

Merleau-Ponty, M. (1997) *Parcours 1935-1951*. Paris: Éditions Verdier.

Putnam, H. (1981) *Reason, Truth and History*. New York, NY: Cambridge University Press.

Searle, J. R. (1997) The Explanation of Cognition. In J. Preston (Ed.), *Thought and Language*. New York, NY: Cambridge University Press, 103-126.

Searle, J. (2015) *Seeing Things As They are: A Theory of Perception*. New York, NY: Oxford University Press.

Shapin, S. (1996) *The Scientific Revolution*. Chicago, IL: The University of Chicago Press.

Wilson, R. A. (1998) Introduction: Philosophy. In R. A. Wilson & F. C. Keil (Eds.), *The MIT Encyclopedia of the Cognitive Sciences*. Cambridge, MA: The MIT Press, XV-XXXVII.