Mediation and proprioception

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1. Self-image and self-recognition

Self-recognition is something constantly sought by humans. Who am I? From where did I come? – These are questions asked by different sciences and focus of several scholars over time. And here we try to highlight some points that relate these questions with the concept of image on human self-recognition. Evident that what is proposed here is not an attempt to define the concept of image, but rather to use concepts of image from Peircean semiotics to create a relationship with human self-recognition (or the concept of image through mediation to propose later the subject of proprioception).

To start it is possible to discuss about self-image and self-recognition with the concepts of pictorial representation and figurative reality developed respectively by Ernst Gombrich and Pierre Francastel. For Gombrich, the study of the psychology of pictorial representation reveals the pursuit of self-understanding from an imitation of nature, the function of tradition, the problem of abstraction, the validity of the perspective and the interpretation in the production of representative images. What the author seeks is the understanding of pictorial effects and its links to the way that the sensory perceived information (with emphasis on visuality) is projected in the self-image that human beings compose of themselves (Gombrich 2007). In contiguity, Francastel understands that human beings create self-image from self-understanding as figurative object, through concepts such as human signification and plastic imagination.

> I do not think there is a better way to explain for our contemporaries what is the phenomenon of nature which ensures the passage of a system of representation (the Middle Ages one) to another (the Renaissance one) than speaking of "montage". Only the belief in the existence of an objective universe brought face to face with a man as a stable thing, which as he strives, from the beginning, by taking more and more accuracy, can prevent someone from admitting the analogy that exists between the development of a new plastic display system in the Four and the current evolution of the arts, compared Painting and Theatre. From one generation to another, men interpret scenarios and represented figurative gestures in plastic screens of two dimensions due to a certain number of material and social values changing. But it is not the ship, the tower or the fountain alone, isolated – that is, the morphology – that have a meaning in itself and locate immediately, for a certain group of people, the represented scene: it is also the juxtaposition or the chaining of signs that involves a conventional signification value, absolutely necessary and constituent of a decent system to be described. As far as the symbolic material of

an era, the montage system used must therefore be examined if we want to achieve an intimate understanding of what it wanted and knew how to express[1]. (Francastel 1987, p. 230)

What the author addresses is the pursuit of the self-image representation for purposes of self-recognition, original in the social individual activities for a particular time and place. Thus revealing the power of the images in the construction of the society and of the "self". Since reports of biblical mythology, it is evident that the man's desire in express the awe and fear in relation to the power of images. Even in different contexts, as in ancient Greece, philosophy had the need to think in visuality, including the optical illusion before the existence and reality of every being. Arlindo Machado, to theorize about Plato, exemplifies this panorama:

Image, concludes Plato, might resemble the representing thing, but it has not its reality. It is a surface imitation, a mere optical illusion that fascinates only children and fools, the destitute of reason. The painter, therefore, produce a *simulacra* (*eidolon*, from which comes our word idol), that is, a false representation, a representation of what does not exist, enticement, image (*eikon*) destitute from reality, as the visions of a dream or a delirium, the shadow projected on the floor or the reflections in the water. In this sense the activity of the painter is pure quackery and the worship of the simulacra (*eidon latreia*, from which comes the term idolatry) is the non-religious form of idolatry. If Plato were alive, would be left to ask him why his attack is struck only to the images. Also the word "flute", used by the philosopher, is not able to play a song and its reference to the actual instrument is by a social convention established by the idiom[2]. (Machado 2001, p. 9-10)

Many authors make criticism to such point of view exploring the context of possibilities of Plato knowledge in his time. Clearly, any context so quoted should be taken into account for understanding the work of any author. But what should really keep in mind is that criticism and evolution of theories are needed at all times of mankind, and it is never dismissed any advent provided by researchers of any age; on the contrary, everything can be used to the eternal encouragement to philosophical studies and the scope of human intelligence. So that, it is appropriate to this moment the considerations about the context of the image in the construction of human being realities, not only as a process of representation, but as the possibility of a psychological attribute before a pictorial context. The really important factor in this context is the search that not only the philosophy has to understand the man, but all the humanities in general:

If considerable part of the intellectual world is still petrified in the old-age tradition of iconoclasm, another also considerable part of the artistic, scientific and militant world are discovering that the culture, the science and the civilization of the nineteenth and twentieth century are unthinkable without the structural and constructive role developed on them by the images (from scientific iconography, photography, cinema, television and new digital media). This second part of mankind learned not to only live with images, but also to think with images and to build a complex and incendiary civilization with them. In fact, nowadays we are rally in position to assess the extent and the depth of the entire iconographic collection built and accumulated by humanity, despite all prohibitions, because only now we can understand the deeper nature of iconographic discourse, what we might call the language of images, which can reflect different realities, historically stifled by iconoclasm oppression[3]. (Machado 2001, p. 32)

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[1] Free translation.
[2] Free translation.
[3] Free translation.

Therefore, opening up the field of human recognition, it is evident that this temporal and spatial self-determination inherent to the construction of reality of each individual is directly linked to the image, not only in terms of visuality, but understanding imagery contemplation from synesthesia, from all sensorial possibilities concerning a specific human.

2. Proprioception

A term in great eminence is "proprioception", which deals with neurological, psychiatric and psychological impulses that lead a person to spatial recognition of the own body. The terminology is not so new, since Charles Scott Sherrington, a British historian, microbiologist and pathologist who obtained his professional recognition with the Nobel Prize in Physiology/Medicine in 1932, coined it around 1900.

In fact, proprioception shall be studied from the sensory receptors of the nervous system, considering that "a receptor alone lacks the ability to identify all of the different stimuli that a body receives every second" (Meldau 2011[4]). Thus, the start of this study is strictly given from bodily-kinesthetic[5] intelligence, which currently already has a different direction: it is combined to this knowledge the values of psychology of pictorial representation based on figurative reality. In other words, current studies on proprioception are based on the alliance of sensory junction concerning the human body (synesthesia[6]) and the image representation possible to the recognition of patterns in human brain.

One of the greatest exponents of this research is Oliver Sacks, especially when dealing with the term in his books *The man who mistook his wife for a hat and other clinical tales* (1997) and *The mind's eye* (2010). The author proposes the utilization of imagery representation facing psychology in the studies of proprioception from examples of prosopagnosia (inability of facial recognition) and even aphasia (inability of language use, its expression or comprehension, total or partial). In the second book cited, there is a case in which the patient is the author himself showing his difficulties of space and body recognition from the development of an eye tumor:

> On December 17, 2005, a Saturday, I went swimming in the morning as usual, then I decided to go to the movies. I arrived a few minutes before the session start and sat in the audience background. There was no hint of anything unusual before the trailers. I began immediately to realize a kind of flickering, a visual instability to the left. I thought it would be the beginning of a visual migraine, but soon I realized that whatever it was, affected only the right eye, so it had to be originated in the own eye and not in the visual cortex, as happens in migraines. When the movie screen went black after the first trailer, the local flicker left lit up like a burning coal girding spectral colors – turquoise, green, orange. […] Then I realized a blind spot inside the burning area, because just looking with the right eye to the left, where a row of lights on the ground was indicating the exit, I found that all front lamps were "missing[7]". (Sacks 2010, p. 147)

It is possible to understand that such perceptual factors determine the reality experienced by every one. So, if the perception process of every human being can make their narrative of the real and their reality, it can be concluded that signs synesthetically translated by a person

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[4] Free translation.
[5] Here the term "kinesthetic" refers to the kinetics, i.e., perception of muscular movements.
[6] It defines the synesthesia as the relationship between sensory planes.
[7] Free translation.

are characterized as elements of pictorial representation from a figurative reality, since it begins to narrate, from an internalized language, an external factor.

3. Reality and image

Following this, comes to light the close relationship that the terms "reality" and "image" take together. Juremir Machado da Silva says:

> Reality is an imaginary. It is solid as an ice cube. From it there are only images and successive approximations. It is a flagrant of an eternal spiral motion. It is a constant evaporation in the name of stability. Real is an intermediate between two entropy peaks. The great magic of the real consists in simulate what it is not: a truth absolutely external to the observer[8]. (Silva 2006, p. 163)

At this point, it is possible to elucidate that the anthropological and social morphism connotation is shown in the expression, action and/or development of figuration by the conscience and the interrelation of psychic functions relating to human cognitive system as part of expression of an internalized signic network in form of language and narrative. Therewith, it is possible to clarify that differentiation, as well as cognitive irregularity, is what makes each human being possess an individual in building society; understanding the term "figuration" as explained and sometimes criticized by Pierre Francastel, by placing the Form as an imaginary thinking scheme:

> The relationship between Form and shapes regard in particular on the problem very present to historians, the nature of the properly historical facts. For reaction against the factual history, there is a tendency to do not take into consideration unless situations that for its long term referred to a very large number of men[9]. (Francastel 2011, p. 11)

Therewith, for the beginning of a new investigative form of self-recognition and the possible vivacity to the beings that proposes themselves human, it is necessary to aggregate the image to the environment to which it really belongs: the senses. This is what leads to the study of a continuous process in which a being proposes humanity when creating a signic relation inside a percept web that, in turn, causes the endless possibilities of beings that one only being can wear on the path of reality construction.

4. Contemplation and affection

This proposal becomes clear when understanding the term "contemplation" used by Spinoza over his works. What the author proposes is a deduction of the mind as idea of body through the idea of imagination. According to Luís César Guimarães Oliva (2011, p. 369), Spinoza specifically chooses the term "contemplation" so that it must not be mistaken as a synonym to "see" or "consider".

> It is this kind of constitution that will allow Spinoza, in the continuation of the scholium, expose the imagination: "moreover, to employ the usual words, we will name Images of things the affections of human body whose ideas represent external bodies as present to us, even if it does not reproduce the figure of things. And when the mind contemplates the bodies in this way, I

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[8] Free translation.
[9] Free translation.

will say I imagine." That is, the imagination is the ability of the human mind to contemplate external bodies as if they are present from the affections of the body, which, while involving the externality, are images[10]. (Oliva 2011, p. 372-373)

At this point, self-recognition can be understood through the contemplation of body and mind as inseparable, because according to the terms of self-image a "mind does not know itself but while realizing the ideas of body affections[11]" (Spinoza *apud* Oliva 2011, p. 374). Therewith, the external determination of body and mind is given by the repertoire externally determined to contemplate a singular, while "the Mind is internally determined to intellect the conveniences and oppositions between things from the simultaneous contemplation of many singulars[12]" (Spinoza *apud* Oliva 2011, p. 375-376).

> The Mind has not appropriated recognition of itself, or even of its body or external bodies, but it is only a confused and mutilated recognition every time that perceive things in the order of nature, i.e., every time that it is externally determined from the fortuitous encounter of things, to contemplate this or that[13]. (Spinoza *apud* Oliva 2011, p. 375-376)

Under such a view, it should be noted, therefore, that the self-recognition process, in the construction of proprioception, can be understood by the imagery construction in the senses, as stated earlier, but cannot be assessed only in the perceptive level; to this it is also pertinent the exploration of the term "affection".

> Different of perception, that measures the reflective power of the body, affection measure the absorbent power, it points to the interior of the body, to what this body adds to the external bodies. Thus, more than prolong external stimuli in consecutive actions and react in predictable accordance with the habit and the immediate demands, the indetermination center can produce a singular experience, create new habits, awake new provisions[14]. (Fatorelli 2012, p. 49)

So, self-recognition is given through a system of mental image combination that is produced in a continuous process of re-signification of perceived and affected objects, having the concept of "self" also as one of those objects. Such modes of action body (perception and affection) lead to two forms of proprioceptive self-recognition construction:

> On the one hand, the body memory, constituted by sensorimotor systems organized by habit, that seek in the past the register of previous experiences with a view to the best performance of immediate practical action; and, on the other hand, the contribution of spontaneous and personal memory, the pure memory, which constricts the regions of the past, its different levels and strata. Differently from image-action that mobilizes the sensorimotor mechanisms mounted on the acquired habits and the automation of perception, always in order to prolong the stimuli received in consecutive actions, image-affection mobilizes the pure memory in the creation of a new entity, changed or even produced, more or less in a autonomously way[15]. (Fatorelli 2012, p. 49-50)

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[10] Free translation.
[11] Free translation.
[12] Free translation.
[13] Free translation.
[14] Free translation.
[15] Free translation.

5. Mediation

Such sensory-motor systems organized by habit and the contribution of personal and spontaneous memory also lead to understand the values of proprioception under the term "mediation" in the theory of Charles Sanders Peirce.

> I choose this instance because it is represented as instantaneous. Had there been any process intervening between the causal act and the effect, this would have been a medial, or third, element. Thirdness, in the sense of the category, is the same as mediation. For that reason, pure dyadism is an act of arbitrary will or of blind force; for if there is any reason, or law, governing it, that mediates between the two subjects and brings about their connection. The dyad is an individual fact, as it existentially is; and it has no generality in it. The being of a monadic quality is a mere potentiality, without existence. Existence is purely dyadic. (CP 1.328)

In Peirce's theory, it is possible to understand that proprioception is linked to self-awareness on the casual act and effect, i.e. in the mediation of imagery sings that form the self-recognition through self-image; understanding that Image, for Peirce, is directly linked to the possibility of sensitive languages notions. That is way, for the scope of this research, Peircean semiotics will serve as a methodological basis of analysis (understanding that other authors are also important in this context and taking into account the relevance of a phenomenological semiotics).

The mediation of images that lead to the understanding of the self must be evaluated facing: (1) passive consciousness of quality, the perception of external images without recognition or analysis; (2) consciousness of an interruption in the field of consciousness, the mental act of action and reaction in the recognition of an external factor; (3) synthetic consciousness, the sense of thought that starts the process of self-recognition in the proliferation of new images mediated by the previous repertoire of each person, i.e., the mediated set bonding time that brings new considerations about a perceived event.

> If we accept these [as] the fundamental elementary modes of consciousness, they afford a psychological explanation of the three logical conceptions of quality, relation, and synthesis or mediation. The conception of quality, which is absolutely simple in itself and yet viewed in its relations is seen to be full of variety, would arise whenever feeling or the singular consciousness becomes prominent. The conception of relation comes from the dual consciousness or sense of action and reaction. The conception of mediation springs out of the plural consciousness or sense of learning. (CP 1.378)

As can be seen, the human being is, therefore, a being who builds the sense of self through a plural consciousness or sense of learning. It is what leads to understand the notion of thirdness in Peirce's theory, i.e. "the category of mediation, of habit, of remembrance, of continuity, of synthesis, of communication and semiosis, of representations or of signs[16]" (Santanella; Nöth 1998, p. 143). These signs, which are the development of proprioception, can be evaluated on the relationship they have with the objects perceived from law virtues.

> [...] usually an association of ideas, which operate to cause the symbol to be interpreted as referring to that object. It is, in itself, a law or general type, namely a legisign. As such, it operates through a replica. It is not only general, but also the object to which it refers is of general nature. Now, what is general has its existence in cases that determines. Therefore, there

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must be existing cases of what the symbol denotes, although we must here consider "existing" as existing in the possibly imaginary universe to which the symbol relates. Through an association or another law, the symbol will be indirectly affected by these cases, and with it, the symbol will involve a sort of index, although a special type of index. However, it is by no means true that the slight effect of these cases on the symbol explains the significant character of the symbol[17]. (Peirce *apud* Santanella, 2005, p. 246)

In this process, such signs cannot only be evaluated facing its general symbolic content, because the relation of self-image has essential qualitative aspects for the development of self-recognition and proprioception. It means that the power of mimesis of the symbol must the character to be highlighted in the construction of self-recognition, since the human being form the self-recognition from the qualitative evaluation of perceived signs and signs retuned to the universe that it belongs to. For Peirce, these factors are linked to the qualitative possibilities, the existence and the mentality:

> To express the Firstness of Thirdness, the peculiar flavor or color of mediation, we have no really good word. Mentality is, perhaps, as good as any, poor and inadequate as it is. Here, then, are three kinds of Firstness, qualitative possibility, existence, mentality, resulting from applying Firstness to the three categories. We might strike new words for them: primity, secundity, tertiality. (CP 1.533)

Santaella shows, in the work *Matrizes de Linguagem e Pensamento* – 2005 (*Matrices of Language and Thought*), the power of these signs to demonstrate the action of representative forms by analogy, specifically the power of similarity of images. The author proposes a kind of form that keeps bond of similarity with what it represents. Therewith, in the areas of sign reception that lead to the self-recognition (proprioception), it can be seen that self-image is formed by signs that have general laws established by cultural convention, but still have an analogy relationship characterized by an apparent or diagrammatic similarity. Deeper into this theory, it is possible to understand that the human being proposes self-recognition trough three aspects: the imitative representation, the figurative representation and the ideational representational.

> (In the imitative representation) there is a prominence of the mimetic function of representation. As representation, the visual form is linked to its object by a convention or convention system, but the imitative aspect is so present that the conventionality works just like an imperceptible support. […] The figurative representation is the representation when denoting figures holds conventions. As representative visual forms, symbolic, they are forms that signify something by culturally established conventions. […] The figure, in fact, indicates what it denotes. However, what it denotes is not a singular but a general. So are the pictographs, i.e., pictorial messages corresponding to propositions and sometimes even narratives. (In the ideational representation), while the pictograms are private figures representing the concepts of objects or concrete actions corresponding to the indicated figures, the ideograms represent concepts or abstract ideas. Ideograms are more schematic figures and conventionalized than the pictograms because it works as diagrammatic indications of ideas[18]. (Santanella 2005, p. 250-252)

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[17] Free translation.
[18] Free translation.

As representative forms, these signs that form the reception and the affection of how the human being fits into the universe to which it belongs, demonstrate the ability to mediate the possible realities of a being.

> Being in thirdness level, representative or symbolic visual forms are very instructive for understanding how the thirdness inlays secondness and secondness inlays firstness. By the fact that they are forms more often figurative, diagrammatic or even images, they keep a sharp level of indexicality, i.e., figures that indicate something of the visible world, from where comes their level of secondness, denotative, referential. But this referentiality is only possible because there is an apparent or abstract similarity between the form and what it denotes, from where comes their level of firstness, iconic, mimetic. However, even maintaining the presence of these two levels on them, the representative forms also add an additional level of meaning that can only be grasped by those who have mastered the system of cultural conventions from which the figures are ordered. An excellent example of these three levels of significance can be found in medieval iconography whose images, therefore, have been called by many authors of symbolic images. They are figurative, indexical, insofar as they relate to the painter time reality. Costumes, scenery, furniture etc. work in these images as epoch indicators. They are also iconic because the figures show similarity with what denote. However, on these two levels of semiotization, erects to a third party, the conventions from which the image is organized[19]. (Santanella 2005, p. 247)

Such forms, a third in Peirce's theory, provide the ability to represent more accurately the infinite realities and self-recognition of a being. The proposal outlined here shows that every being has the freedom to enter into a harmonious space-time reality, without assumptions on individual characteristics; made in an original consciousness of universal content. For Peirce, these realities are not independent of imagery mediation:

> Peirce's "reality" is not "independent of thought", just like Scotus's *realistas* is an *ens rationis*, or mental entity, in the sense that we make the distinction in our mind (but still has a basis in the existent thing). Reality for Scotus has a basis in the existent thing, a Second. Peirce takes Scotus's notion of reality, frees it form the "idle" and complicated distinctions which burden it (like non-adequate identities and such), and recycles it, after adding the notions of the scientific method and synechism, defining it as the object of final opinion. As a result, the basis for the notion of reality for Peirce is a Third. (Mayorga 2007, p. 153)

In short, it is understood that, for each human being, "all reality is a social construction cropped by individual path[20]" (Silva 2006, p. 163). Thus, the process of self-recognition and proprioception must be given at different stages, comprising a multiplicity of I's possible to each human being, since the infinite existing realities for every human being is given by mediated images and decisive situations. It is what leads to understand the conception of the self through the image as reality, i.e., infinite imagery mediations as reality and nature liable to different interpretations in accordance with the repertoire acquired by any being. Thus, the proprioceptive process undergoes an innumerable variety of self-recognition processes; it is aligned to a human right, a value to be defended, that is, image mediation.

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[19] Free translation.
[20] Free translation.

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