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# THE COGITATIVE IN CORNELIO FABRO: FOR A NON-DUALIST PHILOSOPHY OF PERCEPTION

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*This paper considers the relevance of the theory of the cogitative power in Aquinas, as highlighted by Cornelio Fabro during his early research in the fourth decade of the past century, in contemporary neuropsychological studies, and particularly as a specific way of overcoming a dualistic approach in the psychology of perception. The thesis is coherent with an anthropological view based on the substantial unity between soul and body. As a consequence, the capacities of the cogitative faculty (estimative in animals) involve a special account of perception, irreducible to pure thought and to sensations as well, an account that is present in the psychological view of M. Merleau-Ponty and J. J. Gibson.*

## 1. INTRODUCTION

Thomas Aquinas's conception of the cogitative and estimative powers, assumed from the elaboration made by the Arab philosophers of Aristotelian psychology - especially Averroes – did not receive much attention from the Thomistic tradition for several centuries.[1] As is known, Cornelio Fabro in his study Perception and Thought (1941)[2] took it to a gnoseological foreground. Its importance can be calibrated when we consider that this animal and human faculty is at the core of the interpretation of perception as a fundamental cognitive moment, in which sensitivity, affectivity and intelligence converge in a dynamic way. This conjunction is not the mere mechanical relationship between separate psychic "modules", but rather is the result of a maturation of knowledge, taken in its increasing complexity throughout life. Thanks to this process, the various human functions or faculties - also animals, at their level - remain fused according to a form of participatory unity. In this way, thought can be embodied in the senses, following precise paths and not in any way, while the senses, on the other hand, can be elevated to the level of thought. Something analogous applies to so many other psychosomatic levels, such as the unity between intuition and cognitive elaboration, between intelligence and will, between will and sensitive emotions, and thus for many other anthropological and gnoseological dualities.

In this article, I would like to dwell on two aspects of the cogitative, which are highlighted by Fabro and very significant in his efforts to bring Aristotelian-Thomistic psychology of perception closer to the modern psychological vision of the 40s of the 20th century, something that can still be said with more reason regarding the results of contemporary neuroscience .[3]

The two aspects are: first, the importance and actuality that can be envisioned for the function assigned to the cogitative in attention to the current research of the neuropsychology of perception, which highlights a definitive overcoming of the drastic dualism between rational thinking and sensitive perception; second, the correspondence between the gnoseological thesis of cogitation and the anthropological vision of the complex unity of man, made possible ontologically - as a starting point - thanks to the Aristotelian notion of hylomorphism. That notion is far from the pure objective analytical method, for which the idea of an intrinsic union between form and matter is understandable.

## 2. THE IMPORTANCE OF THE THESIS OF THE COGITATIVE FOR THE BIOPSYCHOLOGY OF PERCEPTION

The disadvantage of the theory of cogitation, if one can speak like this, is perhaps its rather strange name, far from popular psychology and absent in modern psychological studies. We understand more easily what the ancients tell us about imagination or memory because these denominations are maintained in the current psychological vocabulary, both popular and scientific. Speaking of "cogitative" sounds remote, and thus favors the impression that it is a denomination of times gone by. However, if we attend to the functions assigned to this faculty, we are surprised by the sharpness achieved by European Arab and medieval psychology when working according to Aristotelian guidelines. The cogitative was not proposed in a lazy and a priori way to solve problems verbally, but as a result of empirical observations on the modalities of knowledge.[4]

The existence of cogitation is proposed based on the need to attribute to the perceptual powers the ability to recognize in the perceived environmental objects functions, utilities and relationships, beyond the reception of the sensitive data corresponding to the formal objects of each external sense (such as light and colors, sound, flavors, etc.) and even its perceptual integration by the work of the common sense admitted by Aristotle and Thomas Aquinas.

It is not necessary to promptly redirect such acknowledgments to the level of intelligence, thus depressing the value of sensitive knowledge, according to empiricist reductionism. It is not enough to remain in the reception of qualitative-quantitative data (such as the color distributed on a surface or diffuse is a transparent medium) in a structured way (for example, by visually recognizing a face, a flower, a garden). The same sensory power, in man but also in animals, must be able to capture, even in a non-intellectual or non-conceptual way, the role and concrete meaning of objects seen in the environment, such as

recognizing the face of an animal as expressive of a subjective intent, or a garden as a place adjacent to a house where you can walk, and things of this kind.

## 2.1 CONSEQUENCES OF THE MARGINALIZATION OF THE COGITATIVE

The abandonment of Aristotelian psychology in the initial stages of modern science (mechanicism, rationalism, empiricism) set the premises for a disjointed and dualistic conception of perception. It could even be said that the same perception was lost, as soon as its functions were directly attributed to reason. This impoverishment of the perceptual phenomenon, reduced in part to thought, joins another symptom of rationalism, which is the devaluation of intentional animal life, reduced to pure physiology (to zoology).

If animals have only configurative perceptions, but no significant acknowledgments, then it may surprise that, for example, animals are able to discriminate between other species of animals (or between natural kinds or natural classes), as this would seem to imply that they have concepts. If so, the animals will recognize that individuals of a certain species, for example, will almost always attack them, which could lead to the assumption that they have beliefs and that they act rationally according to them (for example, because they develop defense strategies against such species).[5] But attributing concepts, beliefs and reasons to act to animals, that is, assigning them authentic intelligence, is always in continuity with the rationalist tradition.

Only an adequate theory of sensitive perception is able to maintain a balance between the "rationally" practical behavior of animals and the universal scope at all of human rationality. More generally, only a tight philosophy of animal life provides sufficient mediation between the spiritual and the material that is able to avoid the drastic dualism of opposing human consciousness to the "unconscious" and "irrational" material reality. The opposite reaction to this extreme is to elevate animals above what they really are, by granting them self-awareness, values, dignity and rights, as if there was no important distinction between human rational animals and non-human animals, that would be "rational" in their own way. The distinction between "people" and non-people (non-human animals) is thus very attenuated.

In an impoverished version of sensitive knowledge, typical of classical empiricism, the senses would register sensory impressions – the sense-data or "data of the senses" – caused by the physical impact of the stimuli on the sensory organs. These subjective impressions – unintentional – such as temperature, luminosity, loudness, would constitute an agglomerate in need of interpretation. The latter would be the work of intelligence.[6] With this version of knowledge, one does not see why intelligence should adapt to reality, although rationalism initially had the temptation of parallelism, according to which, rational elaborations would miraculously coincide with the intelligible structure of reality. In a second moment, with more coherence, it was more natural to think

that intellectual interpretations would be only constructions, synthetic ways of making a human reading of reality, which of his would be unknowable because he lacked his own intelligibility.

The way to avoid this gnoseological distortion, generating pseudo-problems and false solutions, is the analysis of perception at its various levels. It is significant that Fabro begins his volume Perception and Thought with a prolonged comment of the simple fact that "I look out the window and see a thing, a tree, the sky."[7] The problem must arise precisely along this line.

> The expression: 'I see the house, the tree, the sky...' has been in the past and it is still for many occasion of an insurmountable scandal. I 'see' colors, or at most colored figures. I ‘conceive', I do not see, the tree, the house, the sky; I do not see them but I only see qualified surfaces to which the mind, by its story and with its means, 'captures', under the appropriate guarantees, the character of reality and substance.[8]

Sense-data theory weighed heavily on modern gnoseology, especially in the Anglo-Saxon field, although not exclusively.[9] It is a vision of solidarity with Cartesian dualism, today very criticized, but not completely overcome. Fabro already noticed it in 1941, the year in which he wrote the following:

> The obstacle, like the core, for an adequate solution of the problem of perception in the field of modern philosophy, always finds itself in the dualism and diversity of thought and experience, inaugurated by Descartes and systematized in the heterogeneity of noumenon and phenomenon in Kant.[10]

The author of Perception and Thought called attention to the impoverishment of gnoseology in Thomistic scholasticism because of the abandonment of the function of cogitation, so that the relationship between the senses and the understanding was reduced to a simple relationship between the visual imagination ("cinematographic"), that of phantasms, and the abstract task of the intellect, while perception was simplified and attributed only to Aristotelian common sense.

> Therefore, the fact that the cogitation is almost ignored by the neo-scholastics is surprising, and perhaps this is not the last reason why, after having worked around the gnoseological problem, they have not often achieved fruits corresponding to such great waste of energy and why this problem still remains on the high seas, they have been content to talk about common sense, fantasy and memory.[11]

How can one think, for example, that the concept of bread is formed abstractly from the simple image of bread, and not instead, as is much more

plausible, of a categorization based on the complex and dynamic experience of the object “bread”, which is not properly representable and intentionally incorporated into the subject's experiential life? How is it possible to believe that this abstraction is made from remembered images, and not, instead, from non-viewable experiences (such as the intentiones insensatae of the scholastics, which we could translate as "non-representable", such as the intentio of utility or of past being)?

In conclusion, the importance of admitting the psychological functions of the estimative for animals and of the cogitation for human beings is that in this way high capacities of sensory psychism are recognized, which would otherwise be ignored, in the case of the animals, or would be rashly attributed to the intelligence or rationality of man, or further, even more misguided, we would assign the animals conceptual faculties. For those who are unaware of the theme of the faculties of Thomistic psychology, it is enough that they realize the importance of sufficiently accounting for the complex experience of animal and human sensibility and in this way, a reductive version of sensitive knowledge.

## 2.2 SENSATIONS AND PERCEPTION

The theory of perception is a point of arrival but also of departure, because we intentionally know percepts, or significant structures given, that are indicated with sensitive verbs, such as seeing, hearing, etc. and not with the verb “feel”. Normally, sensations are not isolated from perceptions, but are parts of them. The verb "feel" usually indicates rather the sensitive consciousness of the body itself or its vegetative acts as senses, that is, without an explicit intentional reference. It is normal to say "I feel a pain" (it is less frequent to say "I perceive a pain"), and instead it is natural to say "I see a tree" and it would be rare to express itself with phrases like "I feel a tree".

The sensation is rather immanent (it is my impression, my sensation), while the perception is transcendent, that is, intentional. External things are perceived and also perceived as things or entities (a tree, a park, a fruit), and not so much isolated properties, and this is also true in animals, although the latter do not perceive things as such, that is, with the recognition of its essence. Certainly, we lack the words to say what it is that the animal perceives when it sees, for example, a person, without recognizing it as such. Obviously it captures a perceptual unit and not a conglomerate of accidents. We have no choice but to say, for example, “the dog has seen Fulanito,” or “has recognized that he is facing a cat,” even when we know that he has no universal concept of a cat, and that he does not recognize Fulanito as such a human person.

The word feel can sometimes be used to indicate the uptake of sensitive qualities of external things, but it is more frequent to do so when those qualities physically affect our body, as with the “lower” senses such as touch, taste and smell. So we usually say “I feel the perfume of this rose”, “I feel the cold air”, “I feel the pressure of this body that pushes me”, “I feel a prick”, “I feel this salty

food", all expressions that denote the immanence of the sensitive act in our body and not so much the transcendence of the body that has become accessible to our sensitive knowledge.

In these considerations I have followed the indications of our current cognitive terminology, which are often a useful guide for us to correctly interpret the phenomena. The classics did not use a systematic distinction between "sensation" and "perception." Aristotle uses the term aisthesis interchangeably for what we call today sensation and perception. Hence, the traditional term of senses, used for the faculties of sensitivity, is taken from the act of "feeling." However, in Thomas Aquinas there is already some difference, not systematic, between the use of the Latin verbs sentire and percipere.[12] Modern psychology, on the other hand, clearly distinguishes between sensations and perceptions.

The perception is not born of the simple sum or combination of sensations, as the old empiricist associationism maintained. It is an original and emergent act, although it presupposes the activation (immutatio, in the usual Thomistic terminology[13]) of the external or peripheral senses, as well as the sensations related to the body itself (kinestesic, visceral, muscular, painful, etc.). To become aware of the sensations included in the perceptual operation, a quasi-reflexive effort is often needed, for example, to notice what kind of sensations are present in our psyche when we perceive something. So we will say that, when we see a house, we feel our eyes, their movements, or the amount of light we receive. There is, therefore, a cognitive (intentional) primacy of perception with respect to sensations.

## 2.3 COGNITIVE IMMEDIACY AND PSYCHOLOGICAL ELABORATION IN THE UNDERSTANDING OF THINGS

The subjective conviction, of realistic reach, of the immediacy of the sensitive/intellectual perception of things ("I see this person", "I get their benevolence and their virtues"), fundamental to the thesis of the immediate realism of knowledge, does not eliminate the complexity of psychosomatic operations, often unconscious, with which the mind - that is, the framework of cognitive faculties, also in connection with the emotional dimension and with motor skills - gradually matures, in order to finally establish the connections necessary to allow the emergence of perceptual awareness and its development and extension to wider and more complex cognitive and behavioral pictures.

It seems relevant, in this sense, a distinction introduced by Fabro between the immediacy of the content and the mediation of the functions.[14] This point is valid for all gnoseology and psychology, but I think it is important to remember when we try to explain how an uptake is produced as simple and immediate as the recognition of another person, which brings together intelligence with the senses and with all cognitive and emotional resources. The so-called "mediate realism", often linked to phenomenology and empiricism and sometimes tending to the idealistic, confuses functional mediation with a rational mediation that

would be carried out by the conscious subject with perhaps implicit reasoning, or that perhaps is attributed a little gratuitously to inferior psychological functions or even to the brain. Theories of perception,[15] such as associationism, constructivism, connectionism, computational models of perception (for example, that of David Marr[16]), as well as the corresponding neurophysiological descriptions and explanations, illustrate how successive integrations of the input data of the peripheral senses or the internal sensitivity of the organism. Thus, the formation of more elaborate representations is reached, which in the end end up building a perceptual scheme of perceptual things and even of the body itself or its parts.[17] Marr, mentioned above, talked about mathematical computations that the mind or brain would perform. Fabro knows in the book that we are following, for example, the perceptual theory of the unconscious inference that the mind would make to move from fragmentary data to the collection of a perceived totality.[18] We cannot enter into the theme of tension between the elementary explanation, which sees perception as a simple construction of a totality, and the thesis that, on the contrary, sustains the primacy of the emergence of perceived totalities, at which point insisted Gestalt psychology. It is enough to point out that the fact that a perception is elaborated little by little, in a process of perceptual maturation over time, is compatible with perceptual immediacy, which refers to what and not how.

Fabro's solution to certain objections against the immediacy of perception (how to explain perceptual errors, illusions of perception, hallucinations, if perception simply turns to the real object without having anything subjective?) is precisely the distinction between the immediacy of perceived content and the multiplicity and complexity of cognitive functions. These functions are not ordinarily noticed, just as when opening a door we do not notice the amount of muscles and physical parts that are at play in the movement of the hands that open the handle.

Representations exist, without the need for us to be representationists. They allow us to perceive and are not the perceived. They do not oppose immediate external intentionality. Moreover, in many cases they are not aware. But they are explicitly noticed, in one way or another, at the time when errors and functional imbalances occur, or when we notice that others do not perceive as we do, due to differences of the biological or cultural species, or due to the formation of different perceptual habits (for example, more rich detail for experts in a certain field of knowledge).

We can then distinguish between the inferential interpretation of a perception (this is how we know that the terrestrial rotation explains the perception of the apparent celestial movement) and the immediate "interpretation" of the perception, by which we suddenly recognize a person and many of his qualities (and we don't just grasp his body to “infer” that he is a person, as gnoseological rationalism might argue). The cogitative is for St. Thomas a collateral faculty, that is, it makes continuous comparisons (collationes) between different aspects of concrete experiences, such as a heuristic coming and going, almost "rational" (that is why it was called “cogitative” or “reasoner”). Their continuous

confrontations between images, memories, new and old experiences,[19] suggest a kind of practical rationality, subject to the mediations of a non-abstract and non-explicit logic.

This is the basis, presumably, for which it was sometimes thought that complete perception was something like the fruit of inferences or unconscious syllogisms (which would sometimes be probabilistic or based on implicit statistics). The cogitative is a dynamic capacity. Their continuous confrontations are natural, spontaneous and not necessarily conscious, although they can be guided by conscious instances of thought. This happens ordinarily in every process of maturation of perceptions and the progressive appreciation of their meanings in life.

It can also be added that, once these processes have been completed, since they are enlightened by intelligence in a rigorous sense, the intuitive – obvious – capture of an individual, person, or event in the concrete immediately occurs: the recognition of this friend, this colleague, this restaurant, etc., prior to the explicit judgments that can be made in this regard. We are in the order of an immediate pre-judgmental apprehensive knowledge, which therefore also has to do with what we consider to be immediate evidence of a perceptual order, such as knowing that we are in a street, in a room, or before these or those specific people.

In this way, the theory of cogitation allows explanation of not only the perception, but also the intellectual apprehension of the material concrete, something related to the immediate intellectual capture of the existence of the world, prior to the formulation of the notions of entity or complexes of entities. Fabro dedicates to this theme, as we know, a chapter of his study on cogitation.[20]

This point had been obscured in the scholastic philosophy because of the thorny controversies, with its load of technicality, around the issue of direct or indirect intellectual knowledge of the concrete singular, in the context of Thomistic, Scotist and nominalist authors. The subject is naturally related to the issue of universals. The Thomistic thesis of the indirect and reflexive intellectual knowledge of the singular, motivated by the Aristotelian version of intellectual knowledge, could suggest that the intellect would immediately capture only abstract and universal essences, and that its connection with the senses would be somewhat less natural, or that at least it was a problem. Actually, the most obvious thing is that we conceptually grasp concrete things. The gnoseological problem today is rather how to explain the abstraction of the universal.

St. Thomas, assuming the Aristotelian philosophy, assumes that we conceive universals, and therefore "his" problem is how to explain that these universals join the sensitive knowledge to give rise to the intellectual understanding of the singular. However, if we place ourselves in the perspective of the ordinary knowledge of the people, the immediate thing is the understanding of the singular things and the problem is rather to explain how the universals arise.

Fabro recognizes and assumes the position of Thomas Aquinas, while pointing out that the theory of cogitation is essential to solve it, if we do not

want to fall into nominalism, and warns that, on the contrary, the underestimation of this Thomistic point complicates a lot of things. The decisive point in Fabro is not simply the issue of the cogitative, but the thesis that the cogitative implies a genuine participation of human sensibility in universal intelligence.

## 2.4 THE COGITATIVE AND THE BRAIN

As is known, Thomas Aquinas, following the Arab medicine, assigned the headquarters in the "middle part" of the brain, where the middle ventricle is located (what we now call the third ventricle).[21] The brain, therefore, is the physical organ of the cogitative (in some sector of its own). The other high sensory functions (memory, imagination, common sense) are also located in the brain by classical authors, according to the old "ventricular theory".

This fact, although it belongs to the ancient physiology, indicates that in line of principle the high sensory functions have a cerebral radiation for the Aquinate, to the point that for him the differences of intellectual ingenuity between people have their cause in the establishment of cerebral variables of the cogitative, together with the exercise and the formation of habits.[22]

The specific functions assigned by Thomas Aquinas to the cogitative/ estimative are:

1) The capture of the meanings of environmental things, perceived in animals in order to their instinctive, "meaning" means relational aspects "not representable" by simple sensory uptake, but "estimated" or "valuable." For example, the utilities of things, their eventual danger, their social role - such as being a child or a parent, or possessing a subordinate or dominant position - and things of this kind.[23]

2) The preparation of the concrete experience, in its dynamism, so that the human agent intellect can exercise its illuminating and abstractive function.[24]

3) The understanding of specific individuals as they possess in a unique and unique way the metaphysical characteristics that intelligence captures in universal: recognition of this man as such, of this particular brother, of this concrete action as a lie or an act of charity, etc.[25] Animals do not apprehend universals, but they do perceive categorized objects, because they distinguish, for example, between individuals of both species, insofar as they have to do with their practical environmental environment, that is, related to their instinctive behavior: nutrition, aggression, sexuality, etc. In coherence with what we are seeing in Thomas Aquinas and Albert the Great, this recognition can be assigned to the estimative. Many of these points are found equally in Averroes, except for important differences regarding the nature of understanding, where, as we know, Thomas Aquinas distances himself from the Arab philosopher.

4) The estimative / cogitation moves the sensitive appetite - in man, under the direction of universal reason - and thus constitutes a principle of behavior. Thomas Aquinas gives the example of capturing the danger of the wolf that

arouses fear and thus causes flight. Therefore, the cogitative has to do with the concrete apprehension of the practical reason that controls human behavior.[26] On the other hand, as for Thomas, the will does not move the human body but through sensitive appetites,[27] we can also conclude that the will, universal rational appetite, does not move the body without the mediation of cogitation and its extension to the field of human emotion. The motor control of the body depends on the latter.

These aspects suggest that, in short, cogitation, in its close union - as a bridge – between universal intelligence and will, on the one hand, and sensitivity as a whole, on the other hand, becomes like a rationality of the concrete, in its dynamism and continuous mobility. We already saw in the previous section that, when the mature results are reached and incorporated into the memory, the procedural elaboration is compatible with the immediacy of what appears as obvious. And so the cogitative is both mobile rationality of the concrete and immediate intuititive capacity of certain apprehensions acquired by experience. All this is prior to the formulation of explicit judgments and syllogisms. The functions we are considering are not necessarily linguistic. Many times they are pre-linguistic. Therefore, they can be relatively unconscious or spontaneous, just as we do not know for sure how a series of concrete ideas may suddenly arise in our minds.

Thanks to contemporary neuroscience, we know how these psychic processes are distributed in brain circuits. It is not possible here to go down to details on such a broad topic. The acquisition of values in association with perception, emotionality and motor skills is complex and puts into action various brain sectors. It is necessary to specify what kind of value it is, since some have to do with food (which leads, for example, to learning, with a certain innate base, which are the edible substances and which are not), or with sexuality, or with aggressiveness, or with many other aspects. The cortical and subcortical circuits of motivation have to do very directly with the functions classically assigned to the estimative / cogitative. Obviously, the psychosomatic circuits that put into action the associative cortical areas, the hypothalamus, the limbic system and the prefrontal and motor areas do not work exactly the same in subhuman animals and in man.

To give just one example related to the brain, today we know how, thanks to the discovery of the mirror neurons,[28] many sensory perceptions capture teleological actions of other subjects in a sensory-motor way, that is, they give rise to an imitation of the percipient subject. Less imaginative of the same action captured externally. This phenomenon is congruent with the function of the estimative/cogitation that involves apprehending in the perceived thing not only its spatial or qualitative configuration, but its intent or practical meaning, for example, capturing a movement as the execution of a task, at the same time that this is imitated or reflected internally by the percipient subject.[29]

## 2.5 ANIMAL INTELLIGENCE

The animal estimative is not simply reduced to what we call "instinct." This refers, in its usual meaning, rather to the innate appetitive inclinations of animals. The estimative is a form of practical and concrete intelligence – it can also be called "concrete rationality" – whereby the animal captures what is relevant in its environment based on its needs and in the face of its future performance. This acquisition sometimes involves learning that is incorporated into memory. In many cases it involves making associations based on conditioning and reinforcements.[30]

It is remarkable the "modernity" with which Albert the Great conceives the dynamism of the animal estimative, a faculty that moves through emotions, but also has imagination and memory. Affectus (emotion) and motus (motor action) are born in the animal from the assessment made by the estimative and not from the single imagination or vision of a food.[31] Animals do not choose deliberately, but they do choose some things and reject others based on long-term tasks, such as the construction of burrows or the provision of food for a long time. They perform these tasks with their imagination thanks to the estimating power that discriminates between images and "intentions" (as estimated by this faculty).[32] When an injury occurs in the brain area where the estimative is based, animals can no longer make good discriminations between forms and "intentions." Thus their behavior is disturbed (regimen vitae) and they become psychically ill (they become angry or furious).[33]

In short, the estimative of animals appears as the highest sensory faculty. He directs his behavior together and unitarily, mediating between perception and emotion. In man this is done thanks to universal reason and will, as long as they are linked to the cogitative and the passions.

## 2.6 A COMPARISON WITH MERLEAU-PONTY AND GIBSON

To end these considerations, I will now indicate two important authors of the twentieth century regarding the issue of phenomenology of perception: Merleau-Ponty and Gibson.

Maurice Merleau-Ponty (1908-1961), as is known, applied the phenomenological method to the psychology of perception. The phenomenological (Husserlian) consciousness of the essential objects in Merleau-Ponty is transformed into an existential perception. The Phénoménologie de la perception of Merleau-Ponty is from 1945, that is to say, it was published four years later than the Phenomenology of Perception of Fabro.[34]

The French author claims in this book, with numerous arguments, the primacy of perception, against the empiricist elementalism that gives a primary role, instead, to sensations. Talking about "pure" sensations disorients, because our sensations are not isolated, but are always given in a meaningful context - in

a sense horizon - that is given in perception.[35] Merleau-Ponty criticizes, in this sense, the precipitated appeal to the trial to explain the perception, typical of an intellectualist position: "the trial is usually introduced as what the sensation lacks to make perception possible."[36] According to this approach, to perceive would be to "judge", that is, when seeing some individuals from a window, it would be necessary to say that "I do not see them, but I judge that they are there,"[37] so that "perception is it transforms into a 'interpretation' of the signs that sensitivity provides based on corporeal stimuli a 'hypothesis' that the spirit performs to 'explain its impressions.'"[38] On these pages you can see a strong critique of intellectualism / empiricism which begins with Descartes and ends in idealism. On the contrary, notes Merleau-Ponty (in full agreement with Fabro), "there is a human act that in a single blow crosses all possible doubts to settle in the heart of truth: this act is the perception, in the broad sense of knowledge of existence."[39]

The other author that we can relate to the estimative is the psychologist James J. Gibson (1904-1979), known for his writing An ecological approach to visual perception (1979).[40] As in the case of Merleau-Ponty, this work is opposes, in a strictly psychological perspective - restricted to vision, but with a thesis that can be extended to the other senses - to the explanation that reduces vision - we could translate by "perception" - to an elaborative process of information, a process that would end for forging an "inner representation" of the object seen. According to Gibson, to see is not to have a retinal or cerebral representation or image that would then be attributed to the world, but rather is to immediately apprehend an environment inhabited by real and physical things ("ecological environment").

The environment is given to a moving subject who perceives physical things in relation to their practical utilities, a perspective for which Gibson proposes the English term, difficult to translate, of affordances. The affordances are the ecological functions or the potential uses of the objects with respect to the agents that perceive them, such as, for example, seeing the water as what serves us to wash, to drink, to swim, or to see the ground as a reality solid on which you can walk safely. The perception, therefore, is immediate, but it is related to the agent's potential actions on them: we perceive in the actions, at least potential (Gibson does not care to distinguish men from animals and does not refer to intellectual knowledge).

The Gibsonian notion of affordances coincides with the object of the estimative (and partly of the cogitative), although Gibson was not aware of it. Personally, I interpret the work of this psychologist as a contribution to the Thomistic theory of the estimative. I do not know if Fabro got to know this writing, which became belatedly famous, when Fabro was no longer engaged in the themes of Perception and Thought for a long time. The difference with the latter is that Gibson "does not want to know anything", something drastically, of perceptual elaborations - neither psychological, nor neural - while Fabro can assume them, without his immediate realism being attenuated, as we saw

above, thanks to its distinction between the immediacy of perceived content and psychological and functional mediation.[41]

## 3. STRUCTURAL ASPECTS: FORMALIZATION AND PARTICIPATIONS OF COGNITIVE FUNCTIONS

To understand the thesis of cogitation as a bridge between intelligence and sensitivity, it is necessary to admit the possibility that a source of information or, even more, that an act with a certain content may be formalized by a higher content, qualitatively heterogeneous, while in turn it is capable of formalizing an act with a lower and equally heterogeneous content. I speak of "high" and "low" with a certain hierarchical vision, that is, appealing to strata or levels. With Aristotelian terminology in a broad sense, one of these levels can be said formal with respect to a base that we can call material. The levels are cascaded, where a low grade can be formal compared to an even lower one, and at the same time it can be material with respect to a higher grade.

Only in this way can one understand why Fabro says, as the central thesis of his book:

> Perception is a certain 'synthesis' of sensitivity and thought. Better yet, rather than talk of synthesis, which sounds too much of extrincisity, let's say that the same perception is a thought, not pure and abstract, but as soon as it is immediately objectified in sensitive content, a thought that 'incorporates' experience itself, which is why it has been justly said that the essential moment in perception is the 'incorporation of meaning' (Michotte). Perception, therefore, is neither a pure sensation nor pure thought; rather, it is a 'lived thought', to which I cannot be strange the same pure thought , and without which no form of pure thought is possible.It is this immanence of the abstract in the concrete, and the corresponding incorporation of one into the other, those that enable both our thinking and our perception.[42]

The analytical thinking of a certain scientific tradition conceives ideas (and also things) as clearly defined - with a rigid univocity - and always separated from each other. Between two or more elements there could be only one distinction or one identity, but never a "participation of one in the other". An image, thus, is never a concept, and a concept can never be another concept. The material it can never be spiritual, just as the theoretical can never be practical, and thus following for all kinds of dualities (reason and faith, the human and the divine, etc.).

Without falling at the other end of undifferentiated confusion, in which the distinctions fade and eventually lose meaning (confusion between sensitivity and

intelligence, between psychism and corporality, between natural and sensitivity and intelligence, between soul and body, between the natural and the artificial), it should be recognized that some dimensions can formalize others, with an intrinsic communication relationship that we can call participatory.

The Aristotelian-Thomistic thesis of hylomorphism and the concept of dynamic (non-logical) participation are in solidarity with a vision of reality understood as a unit in complexity. For objective scientific thinking – typical of the rationalist method of making philosophy – these notions are incomprehensible and even scandalous (they would be "vague", "not very rigorous", etc.). Reality clearly shows the phenomenon of ontological formalization of hierarchical dimensions in the constitution of the living and, in general, in all reality it competes. A smile, for example, is both an incarnate act and a personal and communicative act, and not, instead, a causal concatenation of acts (of the body, of the spirit, etc.). A smile or a word does not contain a physical act "moved" by an act of the spirit, but is a single act that contains a high physical dimension - high sensomotor level - and an embodied spiritual dimension (intellectual and voluntary). Thus we can say that the spirit communicates with matter, is embodied in it, formalized, given to it in participation. The natural sciences cannot speak in these terms because of their reductive methodology, but remember that their vision is partial. The unity between these dimensions is an integration. In the case of knowledge, it is a perceptual fusion.[43]

The unity between the senses and the understanding is nothing more than a consequence of the substantial unity between soul and body.[44] Therefore, not only gnoseology, but also anthropology is at stake. This is how human reason can improve perception and take it to a higher level. It is understood how the animality of man is not identical to that of sub-human animals, but is transformed, in the sense of high, and this both in the intentional cognitive dimension and in the affective plane.

Thus it is understood, for example, how human sexuality can be intrinsically elevated to the spiritual and personal level, for which the mediation of virtues comes into play.

According to Thomas Aquinas,

> The cogitative and the human memory have this superiority [with respect to the estimative and the animal memory] not with regard to the sensory area, but because they have an affinity and closeness to the universal reason, some reflux [refluentiam]. They are not different powers, but the same ones that animals have, but elevated [perfectiores].[45]

Why should we say - Fabro wonders - that the human eye not only sees colors, but sees this or that other thing (a real substance, an essential property of a thing)?[46] His answer is that the ultimate reason is gnoseological participation as a dynamic unit among the powers.[47]

This point allows us to better understand the intimate union between human faculties. For example, the reciprocal belonging between intelligence and will (which allows to establish certain Trinitarian analogies, as Saint Augustine did). Very different is the static conception according to which intelligence and will would be like two "things" that simply interact in the individual.

Human faculties are not juxtaposed and are not extrinsic to each other - in a logical or purely analytical view - but rather "emanate" or sprout from the soul as from a source, according to a Neoplatonic perspective that sees the essence dynamically and that Saint Thomas fully assumes this order of "processions" is somewhat inverse with respect to the generative, that is, with respect to the order relative to individual development from more elementary material situations (evolution of the embryo until adult maturity).[48]

The dynamic consequence of this complex and stratified unit is a continuous exchange of information between the high and low levels of knowledge.

> This establishes a flow and reflux of the data of the cogitative in the understanding and of the data of the cogitative: for this reason, the first can understand the data of the experience, and the second can organize them in order to be included.[49]

In conclusion, the gnoseological theory of the cogitative of Thomas Aquinas is not only a happy notion that agrees with the orientations of contemporary neuropsychological research, but also contains important core points for gnoseological realism and for the anthropology of the unit of the person, and especially for a more definitive overcoming of rationalist dualism.

**Notes**

1. This is not the case, naturally, of the specific authors who have studied this faculty in St. Thomas, among which Fabro stands out. Cf in this regard, among others, R. Allers, “La vis cogitativa e la valutazione”, in *The New Scholasticism* 15 (1941) 195-221; G. Klubertanz, *The Discursive Power*, St Louis 3 (Missouri), The Modern Schoolman, 1952; M. Manzanedo, “La cogitativa del hombre y la inteligencia de los animales”, en *Angelicum* 67/3 (1990) 329-363; L. Mazzone, La vis cogitativa nella Antropologia di San Tommaso d’Aquino 1995; M. A. García Jaramillo, *La cogitativa en Tomás de Aquino y sus fuentes*, Pamplona, Eunsa, 1997; A. J. Lisska, “A look at inner sense in Aquinas: A long-neglected faculty psychology”, in *Proceedings of the American Philosophical Association* 80 (2006) 1-19; H. Muszaiki, “El objeto formal de la vis cogitativa en Santo Tomás de Aquino”, en *Sapientia* 70/235 (2014) 75-102; J. d’Àvila Juanola Cadena, *La estimativa, facultad nuclear de la vida psíquica*, en https://www.academia.edu/3478117/La_estimativa_facultad_nuclear_de_la_vida_ps%C3%ADquica [consultado: 22-12-2014]. D. de Haan, “Perception and the Vis Cogitativa: A Thomistic Analysis of Aspectual, Actional, and Affectional Percept”, *American Catholic Philosophical Quarterly* 88 (2014) 397-437.

2. Cf. C. Fabro, *Perception and Thought*, Segni (Roma), Edivi, 2008 (1st Edition, Milano, Vita e Pensiero, 1941). Castillion Translation: *Percepción y pensamiento*, Pamplona, Eunsa, 1978.

3. On the cogitative in Fabro, cf. J. J. Sanguineti “Hermeneutics of perceptive learning”, in *Euntes Docete* 50/1-2 (1997) 195-212 and G. de Anna, “Cornelio Fabro between Thomism and cognitive psychology: a neo-Aristotelian solution to the gnoseological problem”, in D. Castellano et al. (ed.), *Per Cornelio Fabro* 1999, pp. 67-89.

4. Fabro points out in this regard (*Perception and Thought*, p. 238): “The speculative value that Sto. Tomás attributes to the cogitativa he does not rely on the abstract doctrine that it is a specific faculty […]. If it is placed as a faculty to oneself, it is not out of laziness [...] but for the reason that once the specificity of a function is recognized, it is necessary to make it correspond to a proportionate proximate principle.”

5. Cf. A. Macintryre, *Dependent Rational Animals*, Chicago and La Salle (Illinois), Open Court, 1999, pp. 12-41, where this author attributes beliefs, thoughts and reasons for acting to higher animals. Dolphins, for example, will demonstrate a capacity for perception, perceptual attention, recognition, desires, emotions, judgments, intentions, orienting their actions towards chosen ends that specify motives for doing one thing or another. "If we are justified in making these attributions, presumably we are also justified in attributing thoughts and beliefs to dolphins" (p. 27). The essential difference with man would be that he is able to reflect on these capacities. The author, even though he is a Thomist and in no way materialistic, cannot avoid this language that he uses to mention the high capacities of animals because he lacks, in my opinion, an adequate theory of perception.

6. Fabro maintains in *Freedom and Thought in Man. 1962/63. Pupils’ Notes*, p. 53 (unpublished document existing in the background of modern wisdom is born from this mistake: that sensation is the fundamental primary knowledge.” The pages of these lessons partially expose, in an agile and lively way, the theses contained in Perception and Thought.

7. Cf. C. Fabro, *Perception and Thought*, p. 28.

8. C. Fabro, *Perception and Thought*, p. 32.

9. J. L. Austin this theory in his writing *Sense and Sensibility* (*Sense and Perception*, Madrid, Tecnos, 1981). H. Putnam welcomed this criticism with enthusiasm in his work *The Treefold Cord: Mind, Body, and World,* New York Columbia University Press, 1999 (*The Triple-Corded Braid: The Mind, The Body and The World*, Madrid, Siglo XXI de España Editores, 2001).

10. C. Fabro, *Perception and Thought*, p. 233

11. C. Fabro, *Perception and Thought*, p. 234. Fabro then points out that Suárez's objection (shown with a quote on p. 235) that it is not understood how a sensitive power can reason about faculties has had an impact on many authors (*Perception and Thought*, p. 376 , note 376): “that the doctrine of the cogitative is difficult, I am willing to admit it, because I have verified it: nevertheless I have the intimate conviction that any gnoseology, and not only the Thomistic one, disperses and falls if it is not you accept". I don't think I mean it in the strict sense of necessarily having to assume this faculty as such, but I do mean its function, that is, to admit the possibility of an intimate interpenetration between thought and sensible perception, avoiding their separation.

12. Thus, for example, to indicate that the animal captures the intentions of the estimate, Thomas Aquinas uses the verb *percipiunt* and not the verb "feel" (S. Th., I, q. 78, a. 4). (S. Th., I, q. 78, a. 4), and also speaks of "perceiving" to refer to the perception

that the senses have of their own acts (S. Th., I, q. 78, a 4, first *praeterea* of objections). In S. Th., I, q. 76, a. 1, we read that man "perceives" that he understands and feels, and in q. 75, a. 2 is expressed by saying that the tongue "perceives" the sweet or the bitter.

13. Cf. S. Th., I, q. 78, a. 3.

14. Cf. C. Fabro, *Perception and Thought*, pp. 418-430.

15. Cf., On this point, J. J. Sanguineti, Madrid, Palabra, 2014, pp. 327-335.

16. Cf. D. Marr, Vision. *A Computational Investigation into the Human Representation and Processing of Visual Information*, New York, Freeman, 1982.

17. Cf. J. J. Sanguineti,, pp. 283-288 and 300-320. 18 Cf. C. Fabro, *Perception and Thought*, pp. 419-423.

18. Cf. C. Fabro, *Perception and Thought*, pp. 419-423.

19. Cf. C. Fabro, *Perception and Thought*, p. 420, note 12.

20. Cf. C. Fabro, *Perception and Thought*, pp. 295-335. Cf., on this theme, M. Echavarria, “The Intellectual Knowledge of the Material Individual According to Thomas Aquinas”, Espíritu LXIII/148 (2014) 347-379.

21. Cf. St. Thomas Aquinas, S. Th., I, q. 78, a. 4.

22. Cf. St. Thomas Aquinas, C. G., II, 60 and 73.

23. St. Thomas Aquinas is not very explicit about this type of meaning (it is usually limited to the case of the warning of a dangerous animal). Albert the Great is much more so, on points where Aquinate, anyway, agrees peacefully. Cf. Albert the Great, De Anima, ed. Cl. Stroick, Aschendorff, 1968, lib. 2, tract. 4, ch. 7, where he mentions the discernment that an animal makes of its mother or children, or of a custodian (“ovis noscit filium et alii et non alii porrigit ubera lactando et fugit lupum ut inimicum et canem sequitur ut custodem”).

24. Cf. C. Fabro, *Perception and Thought*, p. 220 (with various citations of St. Thomas).

25. Cf. C. Fabro, *Perception and Thought*, p. 220.

26. Cf. St. Thomas Aquinas, S. Th., I, q. 82, a. 3 and C. Fabro, Perception and Thought, pp. 222-223.

27. Cf. St. Thomas Aquinas, S. Th., I, q. 20, a. 1, ad 1. Cf., on this theme, J. J. Sanguineti, Philosophy of the Mind, Madrid, Palabra, 2007, pp. 196-204.

28. Cf. M. Iacoboni, The Mirror Neurons, Madrid, Katz, 2009.

29. Cf. on this theme J. A. lombo, J. M. Giménez Amaya, The Unity of the Person, Pamplona, Eunsa, 2013, pp. 75-79.

30. Cf. J. J. Sanguineti, Philosophy of the Mind, pp. 267-304.

31. Cf. Albert the Great, De Anima, lib. 3, tract. 1, cap. 2.

32. Cf. Albert the Great, De Anima, lib. 3, tract. 1, cap. 3.

33. Cf. Albert the Great, De Anima, lib. 2, tract. 4, cap. 7.

34. Cf. M. Merleau-Ponty, *Phenemenology of Perception*, Paris, Gallimard, 1985 (original from 1945; in Spanish: *Fenomenonología de la percepción*. C. Fabro, *The Phenemenology of Perception*, Milano, Vita e Pensiero, 1941 (cf. the current edition in Editrice del Verbo Incarnato, Segni [Rome], 2006). This work appeared almost at the same time as *Perception and Thought*, Milano, Vita e Pensiero, 1941, as a first part, more scientific, that prepares the theses that are developed in this second work.

35. Cf. M. Merleau-Ponty, *Phenemenology of Perception*, pp. 9-19.

36. M. Merleau-Ponty, *Phenemenology of Perception*, p. 40. My translation of these texts.

37. M. Merleau-Ponty, *Phenemenology of Perception*, p. 41. My translation of these texts. Footnote 3 refers to Helmholtz's perceptual theory of "implicit inference."

38. M. Merleau-Ponty, *Phenomenology of Perception*, p. 42. The criticism refers specifically to the so-called "constructivist theory" of perception, which reduces it to a hypothetical interpretation proposed at the level of intellectual judgment.

39. M. Merleau-Ponty, *Phenomenology of Perception*, p. 50. Cf. The conference also expresses this same fundamental thesis, not understood by many members of this society, as can be seen when reading the debate: M. Merleau-Ponty, Le primat de la perception, Vendôme, Verdier,1996.

40. Cf. J. J. Gibson, *The Ecological Approach to Visual Perception*, Boston, Houghton Mifflin, 1979.

41. Cf. A. Paternoster, *Philosophy and the Senses*, Roma, Carocci, 2007. This author supports representative negation at the level of sub-personal processes, avoiding reducing perception to conceptualization. We directly perceive real objects, not representations, but perceptions are made possible by sub-personal informational structures. Such structures are not conscious objects of a representation, but are like a "scaffolding" that cannot be seen, that is, they are means through which we see reality. This position recalls Thomas Aquinas's distinction between the intentional species as the medium quo (through which) is known and the extra-mental reality as the quod object of knowledge ("what" is known): cf. S. Th., I, q. 85, a. 2.

42. C. Fabro, *Perception and Thought*, p. 33.

43. Cf. C. Fabro, *Perception and Thought*, pp. 174 y ss., where the notion of "perceptual fusion" is used.

44. Cf. C. Fabro, *Perception and Thought*, p. 331.

45. St. Thomas Aquinas, S. Th., I, q. 78, a. 4, ad 5 (my translation). In *Perception and Thought*, p. 299, note 45, Fabro cites the significance of Aquinas' affirmation: [in man] the sensitive part, joining the intellect, becomes more powerful ( virtuosior ): S. Th., I, q. 85, a. 1, ad 4.

46. Cf. C. Fabro, *Perception and Thought*, p. 230.

47. Cf. C. Fabro, *Perception and Thought*, p. 230.

48. Cf. C. Fabro, *Perception and Thought*, pp. 224-231.

49. C. Fabro, *Perception and Thought*, p. 227.