

Aldo Stella*, Giancarlo Ianulardo**

The Naturalisation of the mind and neurosciences: a reform of anthropology?

1. Introduction

In the wake of the mechanistic and materialistic conception of reality, in the last decades, a vision has gained momentum which considers man not for that which makes him different from other animals, as it happened for millennia, but for that which assimilates him to them.

Sciences of mind, in particular, propose not only assimilating man to the animal, but, in some cases, even to automata. These sciences are pervaded by a form of reductionism such that the more complex processes, as *thought* and *consciousness*, are reduced to simple computational operations, well simulated by an automaton with finite states, as a Turing machine.

We think that this new conception of man is bringing about changes at the cultural level of an extreme interest; changes whose consequences we think have not yet been fully appreciated. The present article aims to reflect on the theoretical premises underlying the new paradigm, so that even its possible further implications at the anthropological level can be made more explicit.

2. Naturalisation of mind

The term «naturalism», as it is well known, points to a conception relying on the assumption that nothing exists apart from nature. Therefore, the man too must be interpreted as a natural being, by using the same concepts pertaining to empirical and experimental sciences.

Naturalism however covers theories that can be more or less radical¹. *Ontological naturalism* can be considered as the most radical

* aldo.stella@unistrapg.it

** g.ianulardo@exeter.ac.uk

¹ See among other introductions to the subject of naturalism: K. J. Clark, *The Blackwell Companion to Naturalism*, Chichester (UK), Wiley Blackwell, 2016; J. Ritchie, *Understanding Naturalism*, Stocksfield (UK), Acumen, 2008; E. Agazzi and N. Vassallo (Eds.), *Introduzione al naturalismo filosofico*, Milano (Italy), Franco Angeli, 1998.

theory, since, according to it, reality is constituted only by those objects that can be investigated by physics. Thus, ontological naturalism and physicalism tend to coincide, and we can speak of *physicalist naturalism*.

On the contrary, *epistemic naturalism* does not commit itself to a metaphysical point of view, that is it does not claim to establish what the authentic reality is and what the entities are that constitute it, but contents itself affirming that the only form of knowledge is the one provided by natural sciences and, in particular, physics.

Some authors², however, prefer to use the term *scientific naturalism* or *liberalised naturalism*, where with the former they refer to the conception of those who tend to reject all entities and properties that escape naturalisation³, whereas with the latter they refer to the conception according to which the realm of what is naturalistically acceptable is wider than the subject matter of natural sciences⁴.

A constant claim, however, is the rejection of any form of «supernaturalism», so that the true problem becomes that of defining the category of «natural», and, more specifically, whether this should include only what is the subject matter of natural sciences⁵. In this article, we will concentrate on the more radical form of naturalism, which culminates in an extreme reductionism and in a conception that is indicated as «naturalistic monism».

The naturalistic programme has been applied first of all to epistemology and Quine⁶ has proposed to consider the theory of knowledge as a chapter of psychology, taking it out from philosophy. It is worth pointing out that when Quine proposes his programme, he is confronting the behaviourist model.

Yet the following cognitivist revolution does not weaken his position but strengthens it. Indeed, this revolution is based primarily on a

² See M. De Caro and D. Macarthur, *Naturalism in Question*, Cambridge (MA), Harvard University Press, 2004.

³ Among these authors we can mention H. Field, «Physicalism», in J. Earman (Ed.), *Inference, Explanations, and Other Frustrations. Essays in the Philosophy of Science*, Berkeley (US), University of California Press, 1992, pp. 271-291.

⁴ Among those who support this point of view, we can cite J. McDowell, *Mind and World*, Cambridge (MA), Harvard University Press, 1993.

⁵ M. De Caro, «Il naturalismo scientifico contemporaneo: caratteri e problemi», in P. Costa and F. Micheli (Eds.), *Natura senza fine. Il naturalismo moderno e le sue forme*, Bologna, Edizioni Dehoniane, 2006, pp. 85-95.

⁶ W.V.O. Quine, «Epistemology Naturalized», in Id., *Ontological Relativity and Other Essays*, New York (US), Columbia University Press, 1969, pp. 69-90.

very important paradigm shift that occurs in physics, where information theory introduces a breath of fresh air. The concept of information becomes a fundamental element to explain mind and its functioning, for not only is information what physical systems exchange, but also what human minds exchange.

In fact, if behaviourists had simply denied the mind, or its relevance in the scientific domain, cognitivists, instead, consider the response to a stimulus as a function also of *hidden variables*, that is of internal processes, which are not directly observable: cognitive processes which consist precisely in processing information. After exiting from the frontdoor, mind comes back through the backdoor, for now it is no longer held that only that which is observable is scientific, but also that which is computable, since it can be reproduced thanks to a computer, thus because it can be simulated.

The programme of naturalisation of epistemology, on the one hand, takes advantage of the cognitivist revolution; on the other hand, it provides a substantial impulse to another naturalistic programme: that directed to the naturalisation of mind, i.e. reducing the mind to a set of processes that are comparable to natural processes, for they can be described in causal terms.

In the case in which the mind is reduced to mechanical cognitive processes we have the *functionalist reductionism*; if reduced to biological processes, since mental states are reduced to brain states, we have the *materialistic reductionism*, whose extreme position is *materialistic monism*. It is precisely the latter that we will be further investigating in the next section, because our aim is to indicate some of its theoretical presuppositions and discuss them.

3. Materialistic Monism

Materialistic monism represents one of the most radical consequences of the naturalistic conception. Ritchie resumes this perspective in these terms:

Is there a description of how the world is in very general terms that should be endorsed by a naturalist? For many naturalists the answer to this question is straightforward. Naturalism is synonymous with another “-ism” – physicalism. Physicalism is the naturalistic successor to the materialism of Democritus and Hobbes. Physicalists have

learned from science that there is more to the world than the atoms and the void. There are fields and forces and superpositions of state too. Good naturalists as they are, physicalists let scientists fill in the details concerning exactly what there is.⁷

The reductionist consequence in that which concerns the analysis of human mind is the following:

Higher levels represent a new and greater degree of complexity. Entities at one level are exhaustively composed of entities at the lower level. For example, cells are composed of macromolecules, macromolecules are composed of atoms, atoms are composed of quarks, etc. The laws that govern each of these entities can be explained in terms of the laws of some more fundamental level. [...] We then argue inductively that eventually all the various levels will be reductively related to one another and ultimately to fundamental physics, and hence that everything is physical.⁸

For the most radical and reductionist form of naturalism, examining knowledge means nothing else than investigating the brain activity devoted to knowing. The very same psychological activity of empirical and experimental type is considered only as a premise of that which will be the neurobiological activity, and, finally, of the physical investigation, which constitutes for the naturalist the true science of that which, with some approximation, can be defined as «mental».

This is the reason why classical or symbolic cognitivism has been strongly criticised, since it based the mind-computer analogy on the duality of hardware (the brain, in the case of biological or natural intelligence; the electronic substratum, in the case of artificial intelligence) and software (the set of programmes that can implement both the biological and the electronic hardware).

Dualism is criticised in each of its forms, precisely because it clashes with the naturalist programme, which, in its most extreme version, reduces the subject matter of its investigation to the physical reality, the only one that truly exists. Thinking mind as a *substance*, a «thinking substance» as Descartes would have said, and contrasting it with the body substance, i.e., matter, is a mistake which is unaccepta-

⁷ J. Ritchie, *Understanding Naturalism*, Stocksfield (UK), Acumen, 2008, p. 110.

⁸ *Ibid.*, p. 112.

ble, as Damasio⁹ explicitly affirms. This claim is echoed by Dennett, who referring to Ryle¹⁰ says:

Ever since Gilbert Ryle's classic attack (1949) on what he called Descartes's "dogma of the ghost in the machine," dualists have been on the defensive. The prevailing wisdom, variously expressed and argued for, is materialism: there is only one sort of stuff, namely matter — the physical stuff of physics, chemistry, and physiology — and the mind is somehow nothing but a physical phenomenon. In short, the mind is the brain¹¹.

According to the supporters of materialistic monism, dualism cannot explain the interaction occurring between mind and body: if mind is not considered as constituted by physical states, how can it influence the brain? And Dennett goes on: «How can mind stuff both elude all physical measurement and control the body? »¹².

Radical naturalisation of mind culminates in an ontological monism, since it implies three fundamental claims: mental phenomena, including consciousness and intentionality, are natural phenomena; these phenomena can be described and explained only by means of empirical investigations, which are based on the principle of causality; any form of interaction dualism is wrong, for it violates the principle of closure of the physical world, according to which no physical event can count among its causes an event which is not itself a physical one.

Even among supporters of *qualia*, i.e., those experiences that are made in first person (as perceiving the perfume of a rose, or the blue colour of the sky) many converted to materialistic monism. Searle¹³, who defended the reality of consciousness against Dennett, referred to a monism of substance and dualism of proprieties, according to which matter is the only really existing substance, even though it presents itself in two distinct properties, one of which consists in manifesting states of consciousness.

⁹ A. Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain*, New York (US), Grosset/Putnam, 1994.

¹⁰ G Ryle, *The Concept of Mind*, London (UK), Hutchinson, 1949.

¹¹ D.C. Dennett, *Consciousness explained*, New York-Boston-London, Little, Brown and Company, 1991, p. 33.

¹² *Ibid.*, p. 35.

¹³ J.R. Searle, *The Mystery of Consciousness*, New York (NY), New York Review of Books, 1997; Id., *Mind. A Brief Introduction*, Oxford (UK), Oxford University Press, 2004.

We want to draw the reader's attention to this point: materialistic monism has coincided with the recovering of *metaphysical realism*¹⁴, in its most naïve form. This occurred even to someone who, like Dennett, has been able to grasp this naivety:

We naïvely view almost all the features experienced as objective properties of the external things, observed "directly" by us [...]. Our sense organs are bombarded with physical energy in various forms, where it is "transduced" at the point of contact into nerve impulses that then travel inward to the brain. Nothing but information passes from outside to inside, and while the receipt of information might provoke the creation of some phenomenological item (to speak as neutrally as possible), it is hard to believe that the information itself — which is just an abstraction made concrete in some modulated physical medium — could be the phenomenological item¹⁵.

Is it possible to forget, thus, that the object we experience is not objective reality *in se*, but the phenomenal reality, i.e. the one modelled by our way of receiving stimuli and processing information which is contained in them? We will come back to this crucial point. Here we wanted to highlight not only that the above-mentioned naivety is unconsciously removed but, more radically, that *neurosciences* tend to put so much weight on brain states that in some cases they end up considering mental states *nothing but* brain states.

Indeed, for some decades, consciousness has been reduced to a set of biological processes and, when it undervalues the «principle of consciousness», it ends up inevitably undervaluing also the «principle of responsibility». In their introduction to a recent work, De Caro, Lavazza and Sartori write:

Results of Libet's experiments [...] seem to indicate [...] that our acts [...] are caused by a pre-conscious activity of our brain, which enters individual's consciousness only subsequently [...]. From this many deduce that our voluntary behaviour does not originate from conscious intentions, because the latter chronologically follow brain activity¹⁶.

¹⁴ The philosophical underpinnings of *metaphysical realism* and a critique thereof is provided in A. Stella, G. Ianulardo, «Metaphysical Realism and Objectivity», *Philosophia*, Springer, 2018 (in print), <https://doi.org/10.1007/s11406-018-9951-3>.

¹⁵ D.C. Dennett, *Consciousness explained*, pp. 52-55.

¹⁶ M. De Caro, A. Lavazza and G. Sartori, «Introduction» to Id., *Siamo davvero liberi? Le neuroscienze e il mistero del libero arbitrio* [Are we really free? Neurosciences and the mystery of free will], Turin (Italy), Codice Edizioni, 2010, p. XIII.

These new conceptions cannot but give rise to a *new anthropology*, for man is no longer considered as that being who is characterised by his thinking and for having a consciousness, but for his instincts, its impulses, and, especially, his unconscious processes, be they cognitive or biological, that end up assimilating him to an automaton.

The consequences of this *reform of anthropology* are dramatic. As an example, it suffices to think to the consequences at the legal and judicial level: if human actions are essentially the by-product of unconscious processes, then does it still make sense to speak of civil or criminal responsibility of individuals? In conclusion, we can question whether it still makes sense «to punish individuals who could not act differently from how they have in fact acted, since they are genetically and neurophysiologically determined»¹⁷.

Patricia S. Churchland – to mention one of the most important figures of this new conception – goes as far as to identify the self with the brain and, in her work *Touching a Nerve. The Self as Brain* she writes: «And who is *I* here if the self is just one of the things my brain builds, with a lot of help, as it turns out, from the brain's unconscious activities?»¹⁸.

In order to better understand which conception of man is being brought about by neurosciences, we think that it would be useful to further investigate the concept of reality which underlies the most radical form of reductionism.

4. The limit of naturalistic and materialistic realism

Attractive as they may appear, Libet's experiments have been very much criticised and some conclusions have been judged as untenable by many scholars. In a recent "philosophy of science" interpretation of Libet's results Radder and Meynen thus summarise their conclusions:

¹⁷ M. De Caro and M. Marraffa, «Free Will and Retribution Today», *Ethics in Progress*, Vol. 5 (2014). No. 2, pp. 13-14. Recently this theme has been more specifically analysed in M. De Caro and M. Marraffa, *Mente e morale. Una piccola introduzione* [Mind and Moral. A brief Introduction], Roma (Italy), Luiss University Press, 2016; in particular, one can profit from chapter 2 («Le scienze cognitive cambieranno il diritto?» [Shall cognitive sciences change law?]).

¹⁸ P.S. Churchland, *Touching a Nerve. The Self as Brain*, New York (US) and London (UK), W.W Norton & Company, 2013. A critique of Churchland's view is developed in A. Stella, «L'io come cervello» di Patricia S. Churchland: alcune riflessioni critiche», *Intersezioni*, XXXVI (2), 2016, pp. 265-280.

From our analyses in this article, we may conclude that the results of Libet's study and more recent Libet-type experiments do not permit strong (in particular, causal) claims about the relation between neurological processes, *conscious* free will, and motor activity. Instead, these experiments are better characterized as "exploratory experiments" [...]. We are claiming, therefore, not that the experiments do not contribute at all to the debate on neuroscience and free will, but rather that at present this contribution is still exploratory instead of providing a convincing test for or against the existence of free will¹⁹.

The crucial point concerns precisely consciousness: materialistic monism coincides essentially with the elimination of the subject and its mental states, including consciousness, and this is the reason why it is called *eliminativism* (or *eliminative materialism*). Now, it seems important to stress that the elimination of the subject cannot but lead to the *absolutisation* of the object. What are the consequences of this absolutisation? And before answering this, let us ask: what is the nature of the object?

Scientific thought itself does not provide a unique answer to this latter question. On the one hand, it uses to refer the word «object» to a reality that would be constituted in a purely physical-material form, completely autonomous and independent from the subject. On the other hand, however, the description of the object provided by the most recent scientific psychology, when it speaks of perception, allows us to interpret it as a «cognitive construct», so that the subject would play a fundamental role in constructing the object.

This point is theoretically very much relevant and deserves careful attention. From a certain point of view, the object is assumed as *objective*, because it is thought as autonomous and self-sufficient. It is assumed as that which exists *independently* from the subject and its perceptual capacities. In other words, the objective seems to be considered *independently of its relation* to the subject and for this reason it is considered as the *authentic reality*, that reality which is *in itself (in se)* and *for itself (per se)*. From another point of view, instead, the object is considered as a result of the processing of information contained in stimuli, so that it is not the cause of what we perceive, but the effect of our receptive and processing activity. In this sense, it is claimed that

¹⁹ H. Radder and G. Meynen, «Does the brain 'initiate' freely willed processes? A philosophy of science critique of Libet-type experiments and their interpretation», *Theory & Psychology*, Sage, 23 (1), p. 17 (*italics added*).

the object is a cognitive construct and it is said that it has no *objective value*, but only an *objectual value*: the object is posited in its *relation* to the subject and cannot be thought outside this relation.

According to this second hermeneutical hypothesis, common experience objects have an objectual value and, when they are shared by the great majority of people, this does not attest their objectivity, but only their *inter-subjectivity*, in the sense they are a by-product of receptive information processes of individuals who are endowed with a complete cognitive system. Then it would be a mistake to think that what is being shared is that which *in itself* is objective, as it is happens with naïve realism. On the contrary, one must think that which is shared, even though by the majority of people, is assumed *as if* it were objective, despite being nothing else than subjective, and thus, in this case, *inter-subjective*.

Those who reject naïve realism maintain that the «as if» should never be forgotten. Actually, it is precisely the very same nature of the *given*, which is so precisely because it is *given* to a subject, who imposes that it be grasped in its intrinsic *relational value*. This means that the reality we are dealing with and we are speaking of is *empirical, not metaphysical*: that is, it does not transcend experience, but coincides with experience itself.

The object is only relatively *independent*, since it is located within the *relation* that binds it constitutively and structurally to the subject. Thus, we maintain the following hypothesis: information contained in stimuli is that starting from which the object can be *constructed* and the properties of the latter *become* as such only *after it has been constructed* in the mind/brain of the subject. The *relation* that mind has with the physical environment, which is constituted by multiple forms of energy, is thus *transformed* into multiple relations to objects *only thanks* to the subject's neurophysiological and cognitive processes.

According to us, from *naïve realism*, we need to move towards a *critical and sophisticated realism*, according to which stimuli cannot be thought of as coming from the object, but from a reality that becomes an object only within the field of subjective perception, which is then the *field of experience*.

Reaching this concept of the object means judging any reductionist perspective and materialistic monism unacceptable: the subject cannot be eliminated, not only because cognitive processes of higher order, such as categorisation and thought, imply consciousness, but also be-

cause cognitive processes of lower order do not simply consist in undergoing changes coming from external stimuli, but actively select and process information that is contained in them.

5. Denying subjectivity

Our aim is to answer the question that we asked before. We start by saying that naturalistic and materialistic realism represents a *dogmatic* metaphysical conception, completely alien to a *reflexive and critical thought*.

Moreover, naturalistic realism by affirming that the only reality is physical and material, proclaim the *most radical denial of the subject* – if by subject one means will and consciousness – and of the reflexive thought which is the ground of any theory and any conception that is formulated, including naturalistic and reductionist theories that would want to deny that reflexive thought. This denial is precisely what we intend to investigate now, for it can be considered as at the same time the *preliminary assumption* of the whole naturalistic conception, but also as its most significant *landing point*.

Our reflection can start with Schwitzgebel entry in the *Stanford Encyclopedia of Philosophy*:

Early introspective psychologists' theoretical discussions of the nature of introspection were often framed in reaction to skepticism about the scientific viability of introspection, especially the concern that the introspective act interferes with or destroys the mental state or process that is its target. The most influential formulation of this concern was Comte's:

“But as for observing in the same way intellectual phenomena at the time of their actual presence, that is a manifest impossibility. The thinker cannot divide himself into two, of whom one reasons whilst the other observes him reason. The organ observed and the organ observing being, in this case, identical, how could observation take place? This pretended psychological method is then radically null and void” (1830, using the translation of James 1890/1981, 188)²⁰.

²⁰ E. Schwitzgebel, «Introspection», *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), E. N. Zalta (Ed.), URL = <<https://plato.stanford.edu/archives/win2016/entries/introspection/>>. Comte's citation is contained in: A. Comte, *Cours de philosophie positive*, vol. 1, Paris, Bacheleier, Libraire pour les Mathématiques, 1830.

The problem highlighted by Comte represents undoubtedly the fundamental problem of self-consciousness: those who interpret the principle of identity in a formal sense, without grasping its intrinsic dynamics, identify a contradiction in the splitting of self-consciousness. To Comte's objection, which has been accepted by many contemporary scholars and researchers, we must oppose two considerations: the first concerns the principle of identity and the second gives value to the reflexive property of thought, which constitute the very ground of self-consciousness.

With respect to the principle of identity, we can recall the definition provided by Aristotle: «sameness is a kind of oneness, either of the being of more than one thing or when a thing is treated as more than one (as for instance when someone says that a thing is the same as itself, which is to treat it as two things)»²¹.

Thus, sameness expresses either that a thing is identical to another (A *identical to* B, A is B) or that a thing is identical to itself (A *identical to* A, A is A). In both cases, the fundamental point, which must be stressed, is the following: sameness is constituted as identity *between* two terms. This allows us highlighting that sameness is grounded on the relation or, in other words, relation is constitutive of identity. Otherness (non-A), indeed, is required – even though it is required to be then denied – to let the *substantial* sameness of both terms emerge, despite, on a *formal level*, these terms are presented as distinct.

This applies also when one affirms the sameness of a thing with itself. This sameness too is expressed by the formula «A is A», that is as a relation, ratified by the copula «is», and this relation is nothing but an identity because the first term coincides with the second one. Thus, if the two terms were not posited as *two*, one could conclude that they are the same, so that *relation* plays a vital role in the concept of sameness, which is intrinsically constituted by virtue of *difference*.

Now, supporters of materialistic monism reject precisely the relational structure of identity, which is explicitly formalised in the *Principle of Contradiction* (which affirms that a thing is identical with itself *because it is not* another thing) and Comte belongs *pleno iure* to this group of thinkers. Thus, materialistic monists do not acknowledge

²¹ Aristotle, *Metaphysics*, V, 9, 1018a, 7-9; Translated with Notes by Christopher Kirwan, *Aristotle's Metaphysics, Books Γ, Δ, and E*, 2nd ed., Oxford (UK), Clarendon Press, 1993, p. 42.

the dynamical character of identity and think that any determined identity (any «thing») is autonomous and self-sufficient. However, it is not so: indeed, any determined identity is posited thanks to a *limit*, which determines something (A) only to the extent that it refers it (A) to something else (non-A), so that, even from this point of view, it is evident that relation has a primary and foundational value. But relation does not fit within a rigidly monistic perspective, for it should postulate only a formal difference, given that the substance is unique. However, by maintaining the difference between *form* and *substance*, one cannot but reproduce another form of *dualism*.

With respect to thought, moreover, *reflexive property* is the most authentic expression of an identity which is *explicitly* grounded on the difference: thought only can posit itself as an object of its own activity, i.e., it can reflect on itself, and this does not prove its contradictory nature, but its strength and richness.

To better understand this, we can refer again to Schwitzgebel:

Introspective psychologists tended to react to this concern in one of three ways. The most concessive approach—recommended, for example, by James (1890/1981; see also Mill 1865/1961; Lyons 1986)—was to grant Comte's point for concurrent introspection, that is, introspection simultaneous with the target state or process, and to emphasize in contrast immediate retrospection, that is, reflecting on or attending to the target process (usually a conscious experience) very shortly after it occurs. Since the scientific observation occurs only after the target process is complete, it does not interfere with that process; but of course the delay between the process and the observation must be as brief as possible to ensure that the process is accurately remembered²².

This position has become an *irrevocable assumption* of the naturalistic perspective: awareness can only be referred to past psychological states, so that we can never be aware of the present. Nonetheless, we ask: can we have a past without a present? Moreover: if that which appears to consciousness as present, in fact is only past, does the awareness of this belong to the present or the past? This leads to the following question: can we affirm something by forgetting the very essence of *adfirmare* (to affirm), that is, «holding firm»? If that which I affirm is only the past of my psychological states, even this present claim – i.e., the claim that we hold firm only past states – belongs to the past and, thus,

²² E. Schwitzgebel, «Introspection», op. cit.

we can think of a present that denies it and which will become clear to me only in the future, when again it will appear as *memory* (of past states).

We are thus in a *status* in which we remember, but without *knowing* that we are remembering and without *knowing* what it means remembering; on the contrary we are mistaking knowing with remembering. In this way, what we are missing is precisely the *knowing* and the foundational role that it plays, since what I affirm is nothing but what I believe that I know «at the present».

This theme is explicitly discussed by Dennett, when he criticises the «Cartesian Theater, a place where 'It all comes together' and consciousness happens»²³. We cannot speak any longer of a conscious self, according to Dennett, but only of a narrative in which the self is resolved: «Just what we are conscious of within any particular time duration is not defined independently of the probes we use to precipitate a narrative about that period. [...] But any narrative (or narrative fragment) that does get precipitated provides a "time line," a subjective sequence of events from the point of view of an observer, that may then be compared with other time lines, in particular with the objective sequence of events occurring in the brain of that observer»²⁴.

Thus, Dennett opposes a «subjective or narrative sequence»²⁵ to an «objective sequence», which is constituted by brain states. But he forgets that the claim of objective sequence, precisely as a claim, is part of a narrative, so that it cannot have any objective value. It is only by forgetting this that he can reach the following conclusion:

A self, according to my theory, is not any old mathematical point, but an abstraction defined by the myriads of attributions and interpretations (including self-attributions and self-interpretations) that have composed the biography of the living body whose Center of Narrative Gravity it is. [...] And where is the thing your self-representation is about? It is wherever you are. And what is this thing? It's nothing more than, and nothing less than, your center of narrative gravity²⁶.

Therefore, the self is resolved in the narrative, it is one of the objects of this same narrative, and for this reason it is objectified by

²³ D.C. Dennett, *Consciousness explained*, p. 39.

²⁴ *Ibid.*, p. 136.

²⁵ *Ibidem*.

²⁶ *Ibid.*, pp. 426-429.

Dennett. But we can ask: can we have a narrative without someone who narrates? Furthermore: can we have a self in its objectified form, i.e., as a «center of gravity», without an *I* who is objectifying this *self*?

We can add that Dennett presupposes a centre of narrative gravity which, however, not only ignores to be such, but also does not know what a narrative is. Therefore, the narrative he is speaking of is completely mechanical and unconscious. Who can then say that we are dealing with a narrative? The claim that it is a narrative requires a subject that, by knowing himself, also knows what effectively is that which he does and, thus, what a true narrative is. In conclusion, Dennett's claim is a *true claim* if, and only if, Dennett is an authentic *subject*.

Objectification, which is the same as narrative, cannot but require an *objectifying condition*, that is a condition that, on the one hand, allows positing the objectification; and, on the other hand, allows this only because it emerges beyond the same objectification. If, indeed, the objectifying condition would be objectified itself, then it would cease being as objectifying.

We think that this represents the central issue: *reflexive thought* is the foundation of any claim and the possibility of exercising a critique rests essentially on a self-critique, that is on the power, which is typical of reflexive thought, of *splitting* itself in an objectifying and an objectified thought. This is precisely that which, instead, Comte meant to deny.

More generally, we could say that the inadequate attention devoted to reflexive thought by scientific thought is related to the pretence of reducing thought to a *procedure*, for procedures can only be described as a sequence of states, that can be analysed and represented.

The *act of thinking* – that Plato and Aristotle called as *noesis* or *nous*, as something different from *dianoia* (which is indeed procedural thought) – is considered as foreign to the scientific conception, since it cannot be objectified, thus it is not representable. Nonetheless, in rejecting the objectifying act one loses *eo ipso* the possibility of *grounding* the series of that which is objectified (the series of conditioned), whatever the series or the narrative is that one is speaking of.

In fact, even if it is only admitted the existence of reflexive thought, this represents the most radical denial of any reductionism. The latter admits that knowledge is placed on only one level and cate-

gorically excludes any meta-level, which, according to reductionists, should be reduced to the only admitted level.

On the contrary, reflexive thought not only stays as a meta-cognition, and for this reason it can be placed on a meta-level, but more radically it transcends that aspect, which is still mechanical and characterises the meta-cognitive level, as psychologists say. Thought is reflexive precisely because it questions its own being placed on a formal level, i.e. its own proceeding: not only its own starting and moving points, but also the rules that govern the procedures. And procedures are completely conditioned by assumptions and rules.

We have thus reached the crucial point: reductionism is characterised by a first reduction, wherefrom all other are derived: the reduction of the *ground* to the *beginning*. What comes first in the order of a series (the *primitive* or *initial*) is assumed as the ground of the series itself (i.e. as a *ground*) and this seems to be a very serious conceptual error.

6. Reducing the ground to the beginning

One of the assumptions on which the naturalistic programme rests, as we saw, is the rejection of the inner spectator, that is, of introspection, that Dennett has defined as «Cartesian Theater». Marraffa clarifies this point very well when he refers to intentional states:

The second problem concerns the mechanics of thinking over time. The folk psychological laws that govern intentional mental processes subsume causal interactions among intentional states preserving their semantic coherence. For example, reasoning (the mental process par excellence) is a causal sequence of intentional states that tends to preserve their semantic (rational, epistemic) properties. But what if not an inner interpreter might be sensitive to such properties? Here RTM [Representational Theory of Mind] is at risk of the above-mentioned homunculus fallacy²⁷.

Now, the inner interpret means nothing else than a self-conscious subject. According to us, self-consciousness acts as an authentic ground precisely because it can break the *regressus in indefinitum*: it is only because the subject is self-conscious that it can be conscious of

²⁷ M. Marraffa, «Setting the stage: Persons, minds and brains», in M. Marraffa, M. De Caro and F. Ferretti, *Cartographies of the Mind. Philosophy and Psychology in Intersection*, Dordrecht (The Netherlands), Springer, 2007, p. 10.

that which is other from it. Self-consciousness represents that *causa sui* which is required lest we move backwards infinitely in the search for causes.

On the contrary, the naturalistic conception, at least in its most extreme version, finds it unacceptable to turn to a self-conscious subject, and claims that it is the same self-conscious subject which determines the infinite regress, that is the problem of homunculus:

First and foremost, the fundamental objection that Skinner had to the mentalistic explanation in psychology, namely the homunculus fallacy, is a vital constraint on any serious mentalistic psychology. That is, a plausible theory of cognition must avoid the infinite regress triggered by the attempt to explain a cognitive capacity by tacitly positing an internal agent with that very capacity²⁸.

Thus, what is at stake here is the problem of explanation. Explaining means, in synthesis, binding an *explicandum* to an *explanans*, which allows explaining the *explicandum*. Explaining a phenomenon amounts to bringing it back (i.e. reducing it) to the cause that has produced it or the condition that has made it possible.

According to naturalists, if intelligence is to be explained, we cannot assume it as the *explicans*: intelligence cannot explain itself. We think that this assumption has not been carefully pondered and too hastily it has been abandoned in favour of an explanation that derives intelligence from simple, non-intelligent, elements. This functional decomposition is clearly synthesised by Feser:

Dennett's reply to such an objection would seem to lie in his influential strategy of homuncular decomposition. The idea is this. We can usefully regard our minds as comprised of a number of subsystems that perform various mental functions: visual processing, linguistic competence, and so on. Each subsystem can itself be metaphorically understood as a "homunculus"—a "little man" who performs some particular task. But the functions performed by each of these homunculi can, like our own minds, be thought of as comprised of yet more basic functions performed by smaller subsystems; in other words, each of the homunculi comprising our own minds can be thought of as comprising smaller homunculi of its own. At the level of our minds as a whole, we are dealing with what we have reason to treat as systems possessing a very high degree of intentionality. But the homunculi that comprise our minds, precisely because they perform more specific, less comprehensive

²⁸ *Ibid.*, p. 6.

functions, possess a lower degree of intentionality; and by the same token, the smaller homunculi that comprise them possess even less intentionality. If we keep decomposing each level of homunculi into ever smaller levels, eventually we will come to a basic level of homunculi who, because they perform functions as simple as possible, have as little intentionality as possible. Think of these as extremely stupid homunculi – homunculi whose task is no more complicated than flipping a switch back and forth²⁹.

We are thus faced with the following alternative: *aut* the starting point (the *explicans*) is not all intelligent, and then it can't explain intelligence without presupposing it; *aut* it maintains a certain share of intelligence, but then the homunculus has not yet been «dismissed». This type of explanation not only presumes to be able to explain intelligence by means of unintelligent operations, but it also purports to explain consciousness by means of the unconscious and the complex by means of the simple: the structure of the argument is the same.

However, according to us, we must distinguish between two levels of explanation. On the first level, we have the *mechanistic explanation*, according to which temporal priority coincides with causal priority. The radically naturalistic conception can only accept this type of explanation.

According to us instead we must acknowledge a further level, that pertaining to *reasons*, which can be assimilated to the Aristotelian *formal causes*. Now in some sense consciousness is a reason of the unconscious, that is it acts as its possibility condition (intelligibility), since only *by virtue* of consciousness it is possible to define something as unconscious: the unconscious in fact is detected by consciousness as something different from it. Here we are dealing with a *logical priority*, which expresses that a *condition of intelligibility*, rather than a temporal antecedent, is necessarily required.

The difference between *cause* and *reason* is the same as that between *beginning* and *ground*. The beginning of a series (of a system) of elements *opens* the series but being the *first* element of a series is inseparably tied to what follows and so it suffers the conditioning of that which is conditioned by it.

It seems to temporally precede the series, but in fact it only exists if the series is already given. Without the series, it could not count as the beginning: indeed, it would be the beginning of what? In this case we

²⁹ E. Feser, *Philosophy of Mind*, Oxford (UK), Oneworld Publications, 2006, pp. 191-192.

are thus really in a *regressus in indefinitum* which is the circle of presupposition: the series presupposes the beginning of it, but the latter presupposes the series (without which it would be the beginning of nothing, i.e. not a beginning at all), so on infinitely. That *homunculus*, which one wanted «to dismiss», comes back inevitably in.

There is only one way to prevent this infinite regress: understanding the ground in the sense that it grounds itself, and because of this, it grounds the whole series. This applies only to the *act of consciousness*. However, we must add that grounding the series means grasping the *limit* of intelligibility of it, not its legitimation on the formal (factual) plan: the ground does not confer truth to that which is grounded but grasps the limit of the latter.

In conclusion, according to us, we cannot do without the classical concept of ground, which we consider essential to legitimate a theory. Having dismissed this concept has led to a series of claims that have not solved the problem of ground but have only led to the illusion of doing without this concept.

This theme is however inescapable, because if we maintain that it is non-intelligence that constitutes the genesis of intelligence, then we will have to ask ourselves if the passage from the non-intelligible to the intelligible is really *intelligible*. This means that one should develop an *intelligent* theory on the origin of intelligence and only by virtue of this theory (i.e. by the force of *reason*) one would be able to maintain the causal (thus also temporal) primacy of non-intelligence.

We must thus conclude that just like the unconscious finds in consciousness the condition for its intelligibility (possibility), so non-intelligence must be grounded on intelligence, since the latter acknowledges the former in its limit and characterises it as such. And it does not make sense to reduce the ground to the beginning, because in this way one is replicating again that vicious circle which one intended to eliminate.

This is why we can reaffirm that only consciousness (i.e. reflexive thought) amounts to an authentic ground, because knowing itself it can acquire knowledge of everything that is other from itself. Moreover, since reflexive thought is the emerging of the act of thought on its own objectified forms, it follows that any pretence to completely solve *knowing* in the simple empirical and factual consciousness, as naturalism purports to do, is unacceptable, given the necessity of a *meta-level*

on which an objectifying knowing – irreducible to objectified knowledge – can be placed.

7. Concluding remarks

The conception of man that has emerged from the last developments in the science of mind must attract the greatest attention. If the cognitivist conception, in its manifold facets, tends to reduce mental functions to computational operations, to algorithms, and thought itself is considered as a rule following procedure, losing its reflexive and critical value which is the ground of the very same constitution of consciousness, neurosciences tend to reduce mental states to brain states. In the first case, one is dealing with *functionalist monism*, in the second with *biological or materialistic monism*.

Nonetheless, if materialistic monism does not want, through an act of knowing, to deny knowledge, it must accept first of all that matter objectify itself in order to know itself, thus making itself *other* from itself and denying monism; furthermore, for the same reason, it must acknowledge that the same matter is resolved in knowledge, which makes the *object* of knowledge only one of the terms of *knowledge relation*.

In this way, that human being – who had to be reduced to matter and brain – re-merges essentially as *thought* and *consciousness*, since knowledge is such only because it is the result of reflexive thought and known as knowledge. To synthesise, materialistic monism ends up denying itself at the very same time in which it proposes itself as a *conception* of man and reality.

Furthermore, through to the *epoché* that it applies to the principle of consciousness, materialistic monism runs the risk of applying the same *epoché* to the principle of responsibility as well. The consequences of this authentic *reform of anthropology* are very serious on many levels, first of all at the level of individual behaviour, since no one will feel responsible for his own actions and will feel legitimated to undertake the most atrocious acts. To us this seems to be a very serious attack to the man, his value and his dignity.

Riassunto

La naturalizzazione della mente e le neuroscienze sembrano proporre una nuova antropologia, giacché l'uomo viene sempre di più assimilato a un

automa e pensato nella sua continuità con l'animale. In questo lavoro vengono messi in luce alcuni dei punti qualificanti di questo programma di ricerca e vengono svolte riflessioni critiche su di essi, per approdare alla conclusione che il monismo materialistico non soltanto finisce per negare se stesso, nel proporsi come una concezione – dunque un sistema di idee – della realtà e dell'uomo, ma altresì, epochizzando il principio di coscienza, epochizza anche il principio di responsabilità, con conseguenze che possono essere nefaste sul piano antropologico.

Parole chiave: Naturalizzazione, monismo materialistico, riduzionismo, coscienza, antropologia

Abstract

Naturalisation of mind and neurosciences seem to propose a new anthropology, since man is identified more and more to an automaton and thought in continuation with the animal. In this article we highlight some of the defining characteristics of this research programme and we propose some theoretical reflections on it, concluding that materialistic monism not only ends up being self-refuting, by presenting itself as a conception – thus as a system of ideas – of reality and of man, but also, by bracketing the principle of consciousness, it abstracts also from the principle of responsibility, with potential ill-fated consequences at the anthropological level.

Keywords: Naturalisation, materialistic monism, reductionism, consciousness, anthropology