Naturalism and the Ethical Meaning of Phenomenology

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ABSTRACT

The search for spaces of cooperation between the methodology of natural sciences (cognitive sciences in particular) and the phenomenological approach has gained importance over time. However, it is necessary not to lose sight of the fact that Husserlian phenomenology was first and foremost characterized by a profound critique of ontological naturalism, a critique crucial for understanding the ethical sense of the phenomenological operation. To clarify this point, it is necessary to clarify the problematic role that naturalism has played - and continues to play - on the ethical level, and the way in which phenomenological criticism is able to neutralize it. In the following pages we will first try to illustrate the impact of ontological naturalism on the contemporary ethical vision and then to show how the phenomenological perspective is best understandable as a way to reveal the blind spots of naturalism, to denounce its implicit reductionism, and to reopen an ethical perspective that the historical establishment of a naturalistic worldview had artificially closed

In the last two decades, the search for cooperation between the methodology of natural sciences (cognitive sciences in particular) and the phenomenological system has gained prominence (cf. Petitot et al. 1999; Thompson 2003), and this certainly represents a fruitful theoretical contamination. However, it is necessary not to lose sight of the fact that Husserl′s phenomenology is above all characterized by a radical criticism of ontological naturalism, which is crucial for understanding the inapparent but deep ethical sense of the phenomenological perspective.

We want to look specifically at this point below: the peculiarly problematic role that naturalism has played - and continues to play - ethically, and the way in which phenomenological critique is able to neutralize it.

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1. On the ethical meaning of naturalism and the "sciences of nature"

First, what are we to understand by "naturalism"? The term does not have a technically univocal definition, but, in the acceptation we want to examine, it essentially names an historical attitude that has grown into an ontological perspective. In the acceptation discussed here, naturalism expresses an ontological assessment of the entities that make up reality and, derivatively, a methodological assessment of how to investigate it. A naturalistic conception, as we are going to discuss it, is a conception that tends to assume as ontological reality what is accredited as such by the natural sciences (physics above all), which also provide the privileged method for investigating reality.

Our interest, as much as Husserl's one, is prompted by the historical impact that the vision of modern naturalism has produced on social, metaphysical and ontological conceptions. Thus, we are not especially interested in possible secondary acceptations, technical contrivances, subtle redefinitions of the term "naturalism" that we may find in contemporary samples of specialistic literature, but in the broad meaning covered by the term, which has played and plays a huge role in informing ethical and ontological expectations in the contemporary world.

Historically, the vision promoted by naturalism imposes itself in parallel with the growth of influence of the modern natural sciences, and develops side by side with that overall process of "modernization", "liberalization" and "secularization" that takes place in the Western world starting from the 18th century. Treating naturalism as if it were a "corroborated scientific theory" – or worse yet, treating it as if it were just common sense – hides the fact that we are dealing primarily with an informal ontological vision, correlated with the very process of transformation of Western modernity. And this vision has produced an ethical impact which is as extensive as it is problematic.

At the heart of naturalism in the modern Western world lies not a theory but a disposition nourished by the operational success of the natural sciences. To fix our ideas, we can refer to a definition of the historical core of "naturalism" in the following terms: naturalism would be a theory according to which "reality is exhausted by nature, containing nothing 'supernatural'", where the method for studying it is the method of natural science, and where nature coincides with

physical nature.[1] Or, according to a related definition, naturalism as a world view is a theory such that "The world consists of nothing but the entities to which successful scientific explanations commit us." (De Caro, MacArthur 2010: 4) This is going to be our target, since, as we will see, these broad definitions capture the historical shift that occurred in Western ontological attitude between the eighteenth and twentieth centuries. Possible further accounts of "naturalism", insofar as they are not included in that broad definition, are beyond the scope of the following analysis.

As we have said, it is not our intention to enter into a debate around the various meanings of "naturalism", still we want to add a cursory observation around the recent attempt to redefine naturalism as a "liberal naturalism" which would not suffer from the limitations of classical naturalism. The idea here would be to define "naturalism" in a form, which does not strictly limit its objects and relationships to what is currently accommodated in the conceptual framework of natural sciences (physics in the first place). This definition would have only one core requirement: "no entity or explanation may be accepted whose existence or truth would contradict the laws of nature insofar as we know them." (De Caro, MacArthur 2010: 12) The reference to the mere requirement of *non-contradiction with the laws of nature* seems less demanding than the commitment to grant ontological reality just to physical entities, and this looks like avoiding reductionist instances. But this definition owes its apparent "liberality" to its inherent vagueness.

In the first place, it is by no means certain, and should be demonstrated, that the totality of what passes for "law of nature" constitutes a non-contradictory whole (think of the problematic coherence between relativistic and quantum accounts). Thus, before any discussion of what "naturalism" so defined may account for, a comprehensive account of what belongs to the set of the "laws of nature" should be produced, and their internal non-contradictory nature should be demonstrated.

[1] "The term "naturalism" has no very precise meaning in contemporary philosophy. Its current usage derives from debates in America in the first half of the last century. The self-proclaimed "naturalists" from that period included John Dewey, Ernest Nagel, Sidney Hook and Roy Wood Sellars. These philosophers aimed to ally philosophy more closely with science. They urged that reality is exhausted by nature, containing nothing "supernatural", and that the scientific method should be used to investigate all areas of reality, including the "human spirit". (...) A central thought in ontological naturalism is that all spatiotemporal entities must be identical to or metaphysically constituted by physical entities." (Papineau 2021: 1-2).

Secondly, it would be necessary to explain what justifies the *normative* instance according to which the "principle of non-contradiction" - specifically towards the laws of nature - *decides* what is ontologically acceptable and what is not. Certainly it is not possible to motivate a normative instance with any truth of some natural science. On the other hand, if we place a normative stance at the origin of the naturalist approach, we can be a priori certain that the extension of validity of naturalism cannot be all-encompassing, but is limited by superordinate principles.

Third, one should explain exactly what it means for an entity or explanation to "contradict a law of nature." If for a phenomenon not contradicting the laws of physics means that it must be available *in principle* a physical explanation for it, this is essentially equivalent to classical scientific naturalism: we may not yet have a reduction to the physical, but we assume we shall do it the future. If, on the other hand, there can exist explanations which *in principle do not* fall within the class of physical explanations, then naturalism loses any character of epistemic or ontological limitation. In fact, explanations of a purely dualistic or theological type would come back into play, since they are not reducible to physical accounts, but neither do they necessarily contradict them: they simply stand on a different level. For instance, a narrative in which, at the end of Genesis, God would create the laws of nature, reserving the right to modify them with occasional miracles, is not "in contradiction with the laws of nature" because it consistently circumscribes *their* validity.

Other considerations would be possible, but the substance of these observations is that we doubt the viability of a "liberal naturalism" that avoids the reductionist outcomes of classical naturalism, while maintaining the idea that ontological validity is defined with exclusive reference to entities and explanations of the natural sciences. This is the premise on which we operate and which prompts us to use the general term "naturalism" in the following.

Let us go back to the above-mentioned opposition between what is "natural" and what is "supernatural". The first thing that we must remark is that it is not quite informative. If "supernatural" is equivalent to "spooky" as Papineau puts it,[2] we are simply expressing a value judgment on what does not

[2] "The ontological component is concerned with the contents of reality, asserting that reality has no place for "supernatural" or other "spooky" kinds of entity." (Papineau 2021: loc cit.)

fit into a "naturalistic" description, being considered prejudicial, fantastic, unfounded. In our contemporary frame of mind no serious dispute is possible: there is no plausible competition between "science" and "belief in ghosts".

What then is meant by "nature" in a naturalistic perspective? If "nature" coincides with "physical nature", what does "physical" mean here? Etymologically, speaking of "physical nature" sounds like a pleonasm, like saying "natural nature" (the Latin *natura* translates the Greek *physis*). But the specification "physical" is understandable when it implies a reference to the natural science called "physics" and its language. The priority given to "physical nature" by naturalism is a value priority assigned to descriptions produced in the language of physics. A naturalistic ontology in this sense is an ontology in which the real world is the one described in the language of physics, by physicalist categories. It is not difficult to see at the root of this approach the very old distinction between *primary and secondary qualities* that defines one of the markers of modernity. The so-called primary qualities are qualities such as length, width or weight, which are quantifiable and which allow those operations of computation and prediction which characterize the modern science of nature. Secondary qualities, on the other hand, are qualities that are believed to be peculiarly affected by the perceiving subject: flavours, colours, smells, but also pleasure and pain, etc. The operation that ontologically subordinates secondary qualities to primary qualities is in a nutshell the founding operation of naturalism. The extent of what counts as primary qualities, or is reducible to primary qualities, will widen over time, but the nature of the operation is clear from the outset.

In its initial phase, "naturalization" has a strong and well-motivated methodological meaning. The naturalistic approach is primarily an approach that allows us to deal theoretically with isolated subsets of reality, with sections chosen precisely because they can be separately considered. Galileo wants the liberty to make statements about the motion of Jupiter's satellites without having to worry about the repercussions of these discoveries on the political-cosmological hierarchy inherited from the Thomistic tradition. The fact that movements in the superlunar sphere require a rethinking of the cosmological doctrine of the spheres is, for Galileo, a concern that others could possibly take on, but which should not prevent the exposition of his own discoveries. The possibility of isolating "local truths" from their more general implications is an essential cornerstone of modern science, and it has a liberating effect, allowing for a proliferation of particular studies, produced under conditions of division of la-

bour. This emancipation of particular analyses from the overall ontological synthesis is a factor of extraordinary importance at the origins of modern science. It is a passage that is anything but obvious, since it substantially changes the idea of "*Scientia*", of "knowledge" handed down from antiquity: from this moment it is considered not only legitimate, but a priority to examine links and regularities in isolated and controlled rooms, leaving the horizon of general implications to subsequent and eventual evaluations. From Galileo to Darwin, the various controversies between modern science and traditional knowledge take this form: a scientific theory asks to be affirmed regardless of any consideration of what the repercussions could be in other fields. Freeing analysis from synthesis opens up an enormous space for science as an analytical method that takes advantage of the division of labour.

This epistemic transformation was assisted in the Renaissance by the maturation of new measurement and calculus capabilities. With the introduction of special units of measurement and by relying on a new algebra unavailable to the ancient world, it became possible to isolate the factors in play with precision and set up experiments. An experiment, in fact, compared to a free observation, intervenes on a circumscribed system by modifying it in a controlled way, and observing the effects downstream of the previous intervention. Compared to sheer experience, experiment requires precise control of the variables and of the system under consideration, to avoid unwanted interference. This methodological approach lends itself to local and selective observations, while it avoids synthetic and "holistic" observations, which only rarely allow for exact predictions.

At the same time, the nature of the variables that are the primary object of scientific attention also changes. Precisely those traits that lend themselves to exact measurement and unchanged repetition assume an exemplary role. This is the passage that lies at the heart of the separation between primary and secondary qualities. The qualities identified as "secondary" are apparently affected by a typically "subjective" lability. If and when some of these qualities can be converted into stable, measurable and repeatable units, then and only then can they become legitimate objects of scientific knowledge. This preventive selection operation is, again, perfectly understandable on a methodological level, as it breaks down the field of reality into manageable factors, on which to concentrate, and (momentarily) intractable factors, to be left out. The sphere of treatable factors is configured as characterized by two aspects: 1) they are quantifiable entities and therefore subject to computation; 2) they are entities that can be repeated

at will and therefore "inert", manipulable, not endowed with "their own will": they are mere "things".

Quantification and reification are two fundamental methodological instances at the origins of modern science. If an element of analysis has characteristics that are difficult to quantify and difficult to reify, it is considered scientifically imperfect, provisionally untreatable. On the contrary, the greater the quantifiability and reifiability, the more exemplary its scientific character. This is the underlying reason for the priority attributed to physical science in the ranks of modern sciences: physics is the science that deals with those entities which in the most characteristic and exemplary way allow us to be quantified and to be treated as inert things. The more we move away from this field of ideal simplification and move towards chemistry, biology, psychology, economics, sociology, history, etc. the less the playing field appears properly "scientific". The needs of quantification and reification delimit the field of scientifically relevant phenomena in a rather peremptory way. If the aforementioned instances encouraged the decomposition of the field of knowledge into dominable fractions, the need for quantification and reification encourage the exclusion of all classes of phenomena reluctant to be reduced to quantifiable things. Here the operation is particularly demanding, since it does not limit itself to reducing the extension and complexity of the phenomenal field considered, but excludes by definition all subjective acts and the entire *telic* sphere (desires, wills, hopes, expectations, mental acts generally, since every mental act is *motivated* in some way.)

All this, however, as long as it remains confined to the methodological level, does not represent any problem in the ethical sphere. There are very good reasons for proceeding with these simplifying operations, since in this way it is possible to obtain precise causal predictions for many sequences of natural events. The techno-scientific success of the last three centuries amply testifies to the fecundity of these choices in terms of control and manipulation of causal chains.

But when we move from the methodological level to the ontological level, things change. The ontological plane is the plane that concerns the beliefs around the essence of reality, of being as such. When the instances of methodological naturalism become ontological theses we are introduced to an extremely problematic worldview. Historically, the "naturalization" of ontology has involved a gradual process of shaping expectations and beliefs in a characteristic direction. It is the process by which, in Nietzschean terms, "God is dead" and by which the "soul" or "spirit" were first traced back to material entities, defined

or definable in terms of physical conceptuality, just to be eventually cancelled from the list of ontological options. Although the most explicit forms of reductionism, such as that of Ernst Nagel, no longer enjoy much credit, the inspiration of ontological naturalism is and remains constitutively reductionist, in the sense in which in principle all of reality should be able to be described through the categories of physical science. Here the methodology has been translated into epistemology, and the latter into ontology: the scientific method (hypothetical-deductive) and the categories of physical science now also define the ultimate contents of reality.

It is important to understand how in this historical transition, which has been going on for three centuries, the location of "values" and "meaning" (motivations, aspirations, ideals, etc.) has moved from the centre of the world to a shady periphery. Whatever is understood now as "value" tend to take the form of a subjective appearance, a ghost in the human mind, while the human mind is equated with a physical object among countless others: the brain. This process therefore tends to transform each "value" into a fact internal to a piece of biological matter (the central nervous system). In this sense, value, in any sense, is derealized, transformed into a "spooky" entity.[3]

The overall outcome on the ontological, and consequently ethical, level of the establishment of a naturalistic perspective is a peculiar transformation in our vision of the world. In the world of mainstream naturalism everything that has real effects belongs by definition to a sphere that can be exhaustively described in principle through the categories of physics: the world of real causes and real effects is presented as an infinite expanse of means without ends, of indifferent mechanisms. Naturalistic ontology is monistic, therefore it does not admit any otherness, anything external to itself. In the real world we can find: a) ontological regions that lend themselves to being immediately described through physical categories; b) regions which, while not immediately lending themselves to such descriptions, nevertheless do not escape them in principle (all objects of natural sciences beyond physics and all objects reducible to them

[3] Let us stress again that possible theoretical accounts that *reject* the explanatory priority of physical accounts do not fall under this categorization. There are many ways to understand "nature", both in antiquity and in modern thought, which escape the contemporary mainstream understanding where ontological nature substantially equates with "object of natural sciences". Still, among contemporary monists, theoretical developments that explicitly deny the idea that scientific (physical) accounts of nature have explanatory priority over any other account are fairly rare (and even less influent on average opinion).

in principle), and finally c) regions which do not seem to lend themselves to be described, not even in principle, through physical categories. This last sphere is marked off as a "region of facts of consciousness" and its nature in the naturalistic framework is enigmatic. Here events of ambiguous status take place, evocative perfumes, bright colours, sensations and sentiments, values and meanings, all things whose manifestation form appears unsuitable for any description through a physical language, and which precisely for this reason are believed to be altogether different from how they appear. The form in which this "ontological region" is categorized is therefore as "epiphenomenon", that is, as an appearance of efficacy to which, no real efficacy can correspond. Usually the operation that is put into place is to enclose all these phenomena in the braincase as still unexplained aspects inherent in peculiar and marginal objects of the universe: human brains.

A vision of this kind has represented and historically represents a passage full of implications in the ethics of modernity, triggering or fueling a widely recognized axiological crisis, starting at least from the second part of the 19th century. In the face of this crisis of meaning, the attitude of ontological naturalism is mostly to grant its problematic implications, but to resign itself to the "force of truth". This is the point where the phenomenological reflection engages in a crucial way.

2. Being and phenomenon in Husserlian phenomenology

As known, Husserl′s phenomenology has devoted comparatively little space and moderate attention to the explicit thematization of ethical questions. But paradoxically, most authors who have been inspired by phenomenology have manifested a remarkable ethical tension: from Scheler to Heidegger, from Sartre to Merleau-Ponty, from Binswanger to Ricoeur, the branches of the phenomenological lesson have frequently taken paths in which the ethical sphere is the essential protagonist. This is not a fortuitous case: the theoretical operation promoted by phenomenology is crucial in deactivating ontological naturalism, which is the most powerful theoretical device for the invalidation of ethics that the history of thought has ever set forth.

Phenomenology performs this task as side effect of an attempt at a radical epistemological foundation. For Husserl the crux is, in the first instance, an understanding of what properly deserves the name of "truth" and what the name

of "science". His reflection is placed right at the centre of the claims of naturalistic ontology, which is a metaphysical thesis, but which presents itself as a somehow inescapable effect of the *validity of scientific truths*.

The Husserlian perspective is directed from the outset to a question paradoxically neglected by scientific methodology, namely the problem of what counts as a founding truth, and why it does. The problem of the nature, criteria and reasons behind a scientific truth has rarely been a central theme within the scientific debate itself; this order of questions was brought to the fore in the 20th century, first by Husserl, and then, in different forms, by philosophers of science such as Kuhn, Feyerabend, etc.

The problem posed by the plurality of sciences has been open since Comte's positivism and the crisis of the foundations of mathematics, which unfolds approximately in the same years in which Husserl lays the foundations of his phenomenology. The fact that there are several sciences with different and not mutually translatable conceptualities represents a huge problem for anyone who takes science's claim to "saying the truth about the world" seriously. It is a conspicuous epistemological problem that, say, biology or psychology use concepts of a teleological order (instinct, function, desire, life, consciousness), while these concepts have no place in physics or chemistry. In the absence of a convincing way to unify these conceptualities, we are forced either to conceal the problem or to admit that "scientific truths" cannot be what they claim to be, that is, "representations mirroring reality". The main solution to this state of affairs was the one attempted by Ernst Nagel's reductionism, according to which a science, physics, had to represent the basic conceptuality, the one "faithful to reality", while all other sciences had to count as approximate and provisional forms, which in principle should have been reduced to physical conceptuality (the less accurate, the more their concepts distanced themselves from the physical ones). This solution, the feasibility of which was unsuccessfully explored by neo-positivism, left out of the game the embarrassing problem posed by mathematics, which on the one hand displayed features of scientific accuracy and stability superior to physics and on the other suffered from an ambiguous ontological status and of unsolved foundation problems. The problem posed by the scientific nature of mathematics is not trivial from a naturalistic point of view, given that the most apparent criterion for defining the "hard scientific character" of a science, from Galileo onwards, was precisely the ability to apply mathematics with predictive success. If the outstanding characteristics of a scientific truth

were to be univocality, certainty and stability, then it would be more mathematics than physics that should count as a "paradigmatic science". But if mathematics were science par excellence, then the naive representation of science as a "mirroring of facts", as an adequate representation of nature conceived as an object, could not hold.

It is certainly this train of thought that initially prompted the mathematician Husserl, through a confrontation with Frege's "Platonism" (Frege 1884), to contest the naturalist paradigm in a radical way. This Husserlian critique initially took place with particular reference to "psychologism" (Hua XVIII), i.e. the theory that sought to reduce the forms of thought to "facts of the psyche". In this inaugural reflection of phenomenology, what comes to the fore is the senselessness of conceiving the world as a sum of particular facts. In a world of particular facts it is rigorously impossible to define any process of "confirmation" or "verification", and therefore also any truth. If reality is a summation of particular facts, then a truth must be imagined more or less as the encounter between a particular natural fact in the world and a particular fact in the brain (mental state). But then all we could have is the meeting of two particular facts, which is just a third particular fact. And there is no way to raise this particular sphere to the level of stable judgements, of replicable truths: every single encounter between particular facts will result in further particular facts, without ever generating anything that could count as a "truth", which always has a claim to general validity (Hua XVIII: §§ 32-38).

Furthermore, no truth can emerge without there being a *purposeful activity* of research, verification, confirmation, but in a world represented as a mere sum of particular facts there is nothing that is legitimated to present itself as a purposeful activity: a fact is a given, and nature hosts only entities endowed with an objective and "inert" character (events, things, states of affairs, facts).

The lack of 1) a sphere of general meanings, and 2) an active dimension of consciousness, makes the obtainment of true judgments, in science as in any other field, unthinkable. It is for this reason that Husserl introduces, as a necessary foundational complement for any claim to scientific truth, the sphere of *intentional acts*, which are acts of consciousness bearing meaning. This is the first fundamental step out of a naturalistic paradigm: a world conceived as a summation of particular facts proves to be scientifically inaccessible and incapable of truth. In order to have a valid discussion of truthful and scientific claims, a fundamental role must be granted to acts of consciousness that carry meaning (intentional acts).

The second theoretical step that Husserl takes, after the publication of the *Logical Investigations*, is that of defining the original sphere of "what there is", of reality in its most comprehensive sense. The vision of reality as a summation of objects, of things, of particular facts is denounced by Husserl under the name of "objectivism". It is a vision, often implicit, according to which the world is imagined as the set of all "things", of all "objects", while removing from the picture the subjectivity for which those objects are given. This metaphysical vision, which characterizes naturalism, is prejudicial and unjustifiable. On the historical level, it simply responds to the attempt to reduce the scientifically investigable field to the most immediately explorable components: stable and repeatable objective appearances.

To prepare the ground for the identification of "original evidence" Husserl develops his methodological approach, whose heart consists in the suspension of judgment around the *ontological status of appearances*. The phenomenological description puts in brackets not so much the "theoretical presuppositions" in general (presuppositions that are not easy to suspend, being inherent in the very language we use), but rather the evaluations concerning the *status of reality* of what is being described (Hua XXXIV: 130). This move specifically knocks out any assumption about what is real and what isn't, what is "more real" and what is less. A percept and a thought, an expectation and a pain, a memory and a perfume can be described in their relationships without implicitly recalling any prejudicial theory, idealist or materialistic or empiricist or otherwise, which assumes to know which phenomenal area has the ontological primacy. Any foundational relationships between phenomena must emerge as relationships that emerge from the phenomenological description. It is only starting from this descriptive level that it can be established, for example, that perception has a founding priority with respect to both memory and imagination, even if neither memory nor imagination can be reduced to percepts (perhaps "faint" ones, like Hume's "ideas").

The space of "phenomena" that Husserl opens up is the most comprehensive space of raw evidence conceivable: everything that has meaning for us appears in it. The way in which the relationship between these meanings is examined is primarily the description of the appearance of how they relate: the opposition between reality and appearance has no prima facie reason to exist, since everything that appears has some degree and form of existence. Secondarily, with the emergence of foundational orders between phenomena, we can define

priorities, such that, for example, a visual memory must be based on a visual perception. This does not make the memory "unreal", but establishes its reality status as subordinate to the status of perception.

Husserl distinguishes the concept of "real" (*real*) that characterizes naturalistic objectivism, where it is linked to the spatiotemporal location of an entity, from the more comprehensive concept of "real" (*reel*), which includes the entire sphere of what has meaning (Hua III: §§ 39-42). Husserlian analyses on the constitution of spatiality in the sphere of perceptual praxis show how the *spatial* determination of an entity (*Realität*) by no means resolves "everything that is" in itself (Hua XVI).

These considerations by Husserl are a methodologically stricter elaboration of observations already made by Berkeley, who noted that it is not possible to have any access to the "primary qualities" without passing through the "secondary qualities": a consciousness without perceptual access to reality would have no conceivable access to the ideas of extension, solidity, weight, etc. Naturalism imagines the sphere of "primary qualities", and in general of entities defined by physical units of measurement, as something which, once discovered, can rightfully leave behind all conscious, subjective, perceptual components, as irrelevant. Subjective consciousness would be, so to speak, only the ladder that can be thrown away once knowledge of physical reality is achieved.

This way of proceeding, by isolating from the list of phenomena those which guarantee stability and replicability between different subjects at different times, builds a sphere which is meant to be independent of individually subjective factors. Thereby, it is believed that subjectivity as such has been put out of play. But what systematically escapes this approach is the indispensable and permanent role played by two factors that are inconceivable without a fundamental reference to the subjective sphere: *motivations* and *meanings*. Let us try to discuss these two aspects separately (although they are never completely separable in principle).

3. The ontological status of motivations

Every "regional ontology", i.e. every sphere of investigation assigned to a science, is open to a specific intentionality and specific questions, which cannot be replaced in principle by the intentionality and questions of another science. Suppose that biology is a field opened up by questions about the essence of life,

that psychology is opened up by questions around the essence of personal consciousness, that economics is opened up by questions around the essence of transactions aimed at the satisfaction of needs, etc., in what sense could these regions of inquiry be replaced in principle by questions aimed at identifying physical laws? How could a series of answers aimed at defining inertial physical regularities in principle satisfy the original questions of biology, psychology or economics? In fact, there is no principled space in the procedures and validity criteria of physics for questions about survival instinct, or personal identity, or collective needs, etc. And each of these questions, as questions, is animated by a *motivation*, without which nothing like a search for truth can be set in motion.

But then let us ask ourselves, echoing a famous Nietzschean question, why are we looking for truth and not rather illusion? Husserl inscribes the drive towards truth in a teleological framework that concerns the entire movement of reason (*Vernunft*) (Hua XXVII: 25). Knowledge is a *telic* (motivated) praxis since its initial roots in perceptual exploration. Even the general epistemological instance whereby the search for simpler and more comprehensive solutions is preferred to the search for more complex and less comprehensive solutions is a *preferential* intention that is valid upstream of scientific investigation, and without which it cannot take place. The primitive isolation of some perceptual units as salient is already a finalistic process: if we perceive two trees as two units against the indefinite background of a meadow, this salience is a telic process in which our perception highlights two entities which for us have a unitary meaning at the expense of a less prominent background. We are never dealing with a passive mirroring of the visual data, but with the apprehension of significant units.

When we imagine a causal mechanism, as well as when we set up an experimental apparatus to test it, we imagine two events meant to count respectively as cause and effect. However, it is obvious that if we were mere recorders of the available reality we could not isolate an event by circumscribing its "*borders*". In fact, in physical reality, there is no circumscribed event, since a necessary threshold between the event and the consequences of the event does not exist and cannot exist in principle. If I hit a ball with a baseball bat, where does the event begin and where does it end? Where do the causes and where the effects of the event begin? It is obvious that in an objective sense there is never any intrinsically circumscribed event in the world and that whenever we consider an event, what actually happens is that we select an *ideal perceptual unit* (it may not be physically perceptible) and we place it in the spotlight for further purposes.

In all of this there would be nothing mysterious, if we didn't pretend to move in a sphere where the subjective sphere of motivations has no right of citizenship.

Considerations of a similar nature have been expressed by Georg von Wright in his examination of the attribution of causality (von Wright 1971). In fact - von Wright observed – no mere regularity is enough to identify a relationship of causality, since every regular connection recorded between two events can simply be the double effect of an antecedent third cause, acting offstage. To discern an accidental regularity from an effective causality, the only way we have is to intervene on the system and to evaluate what is changing after our intervention. Therefore, as von Wright observes, it is only the idea of *subjective action* that makes explicit and defines a causal attribution: only our subjective action can be uniquely perceived as a "cause"; and this happens because we are *motivated* to interpret our action as irreducible to any upstream cause, as an *origin*. Thanks to this elect role of agent intervention we can articulate the world into causes and effects, while if we were to rely on a passive recording (assuming this is conceivable) we could never articulate the world into events, neither causes nor effects.

4. The epiphenomenalism of the mental and the ontological status of meanings

Within the naturalist tradition, the most advanced concession to the irreducibility of the subjective is represented by the idea of an "explanatory gap" between the descriptions of phenomena in terms of conscience and the descriptions of phenomena in physical terms.

By "explanatory gap" we mean, starting from its first use in Levine (1983), a critique of the epistemological thesis of *psycho-physical identity*, i.e. a critique of the idea that it is generally legitimate to place a physical event and a psychical event in equivalence as in the statements: "pain is nothing but the stimulation of the C fibers", or "red is nothing but the electromagnetic wavelength between 630 and 740 nanometers". However, admitting the problematic nature of such an equivalence does not yet mean agreeing on where the problem lies. Often the theme is made to coincide with the idea, proposed by David Chalmers, of a peculiarly "hard" explanatory problem, which would be represented by consciousness:

> The really hard problem of consciousness is the problem of experience. (...) It is undeniable that some organisms are subjects of experience. But the question of

> how it is that these systems are subjects of experience is perplexing. Why is it that when our cognitive systems engage in visual and auditory information-processing, we have visual or auditory experience: the quality of deep blue, the sensation of middle C? How can we explain why there is something it is like to entertain a mental image, or to experience an emotion? It is widely agreed that experience arises from a physical basis, but we have no good explanation of why and how it so arises. Why should physical processing give rise to a rich inner life at all? It seems objectively unreasonable that it should, and yet it does." (Chalmers 1995: 201)

Here the problem arises in terms of an incommensurability between experiential qualities and physical descriptions of their substrates. Taken for granted that psychical phenomena have a material (cerebral) substrate in which they are inherent, however, the fashion such phenomena manifest themselves as conscious experiences presents a discontinuity with respect to the physical descriptions of cerebral or bodily processes in general. Here the problem ends up being formulated in two main forms: one can remain anchored to the idea of a merely *formal incommensurability* between the language of consciousness and physical language; or, one can arrive at the thesis of the *epiphenomenalism of consciousness*, which involves the causal inefficiency of the mental.

The idea of a formal incommensurability between conscious descriptions and physical descriptions suffers from a fundamental problem. Although it is intuitive and understandable that the language of physics and that, let's say, of psychology, are different, there remains an assumption that reduces this incommensurability to a "merely epistemic" problem: if we assume, as we have good reasons to do, that the "facts of consciousness" and the "physical facts" belong to the same reality (monism), then the incommensurability of the descriptions tends to be understood as a merely cognitive limitation, whereas actual reality would be ruled by just one causality, that unifies the physical and the mental. Once the problem has been set out in this way, since physical conceptuality is meant to be applicable to every entity, while psychological conceptuality is meant to be applicable to the limited field of "minds", it follows that an extension in principle of the physicalist model of explanation also to the sphere of consciousness will be assumed as plausible – even if this reduction might never be complete. As is clear, this approach ends up promoting an unlimited ontological naturalism, which could rely in principle on a complete reduction, in the long run, of the mental to the physical, or, at most can resign itself to an empirical

inability to completely perform this reduction. On this basis, the transition towards the thesis of the epiphenomenalism of the mental is spontaneous.

The epiphenomenal outcome implies that, faced with the difference between the appearance of cerebral and mental processes, we may be surprised by the odd existence of experiential qualities (*qualia*), but we must not attribute any *ontological role* to them. Here conscious experiences appear as mere accompanying gloss of the hard physical reality.

The epiphenomenal option has had many defences. One of the best known is the one promoted by Daniel Wegner (2002), according to which, what we call "conscious will" properly belongs to the category of feelings or emotions, and has no actual causal relationship with the actions we believe to be moved by our will. Wegner's arguments aim to show first that we have no direct intuition of the causal power of our will, about which we can be easily deceived. Secondly, this misalignment between our sensation of will and the reality of our causal powers would demonstrate the epiphenomenal nature of our consciousness of voluntary acts, and this would be supported by arguments (as famous as they are controversial) such as those drawn from the Libet's experiment (Libet 1985), which Wegner extensively resumes (Wegner 2002: 52f.).

Yet, we do not intend to tackle this argumentative course here, because, in line with the setting of the "explanatory gap" and the "hard problem of consciousness", this argument moves from the start from a misleading and compromised basis. The problem of consciousness is treated as a problem defined by the existence of "qualia", qualities that can be perceived in the first person and for which there would be no correlate in the physical language. The essence of consciousness is therefore reduced from the outset to a sensation, to a "what it is like" to have certain experiences, thus, to a fundamentally *passive* dimension.

This approach removes from the table what is most essential in the dimension of consciousness, i.e. the *active sphere of meaning*. This approach seems to forget that already the very game we are playing now, as we argue and counter-argue about the limits of the ontological or the epistemic, is taking place within a sphere of meanings. Since it is impossible that this is not known, the only way to be able to deem it irrelevant is to suppose that meanings can exist independently of forms of consciousness. Probably upstream of this implicit assumption there is the idea that there could exist in principle a way of reducing all the units of meaning to a "causal mechanism" or to a "software", but this is again an idle reductionist assumption. Each unit of meaning is woven of *telic*

material; each unit of meaning carries within it selective factors for *importance*, *expectations* and *functions*. Whether I speak of "chairs"" or of "ontologies", of "nature" or of "inertial mass" of "faith" or of "science", each conceptual unit is the precipitate of operations, perceptions, habits, linguistic practices, etc., all things that presuppose telic activities of a living being, and without which those semantic units do not exist. Proving that something like meaning can occur even in the absence of conscious activity is something that bears the full burden of proof: until proven otherwise, a computer does impressive things, but it doesn't think, doesn't handle units of meaning. The entire thought process in which meanings occur is an *activity*, something that is *motivated*: every concept is inhabited by a motivational dimension. A concept is used by us for different purposes, explicit or implicit, from time to time, and its "living nature" is made manifest by the fact that we produce further meanings from previous meanings, by drawing metaphors, similes, ironies, etc.

As long as one imagines the specificity of consciousness in the form of a sensation that accompanies experiences (*qualia*), the temptation to reduce consciousness to an epiphenomenon can never be eliminated, because sensations can always be imagined as passive side effects of the substance of thought. But once we understand that the sphere of meanings is the heart of consciousness, and that this sphere is conceptually irreducible to physical objects or mechanisms, the possibility of credibly hypothesizing that consciousness is an epiphenomenon dissolves. To suppose that the conceptuality that we elaborate, learn and teach, is devoid of causal powers of its own is extraordinarily implausible, given the care that we take in devising and transmitting such apparatus of meanings to the next generation; and we take so much care precisely because, when some meanings are learned, they do change the following behaviour. A community motivated by a religious belief in the afterlife, or by a cult of ancestors, behaves differently from a community without such beliefs. Anyone who wants to argue that the beliefs in question are mere epiphenomena, with no effects on behaviour, bears again the full burden of proof.

What makes the epiphenomenal perspective somehow less implausible than it would otherwise appear, is mostly a misleading conception of causality, and of mental causality in particular. If we take Libet's famous experiment and boils it down to its core, we see how it states that there is a brain state RP (*Readiness Potential*) which can be associated with a certain action A, and which seems to precede the awareness W of the will to perform action A. The conclusion that epiphenomenalists draw from this finding is that this temporal order (RP before

W) would demonstrate that the "true cause" of A lies in the cerebral state and not in consciousness. The problem is framed as if we had to decide between the causal power of the brain without consciousness or of consciousness without the brain. The idea is basically to decide what deserves to be considered causally efficacious between the mental and the physical on a "who comes first" basis.

Now, the question is: are we sure that we know how to think a causality defined by *irreducible priority*? Under what conditions would we be willing to grant an undisputed "causal faculty" belonging to acts of conscience? Had we found in the Libet's experiment that the state of consciousness W had no manifest physical correlates nor antecedents, would we have drawn the conclusion that W counts as uncaused causes? Well, even if we had detected no physical correlates of W, we would probably have assumed that the mental state was inherent in an unknown brain state (it supervened on it), and in any case we would have looked for a chain of antecedent material events.

Yet, if true causality equates with irreducible priority, how should we portray the hypothetical case where mental states are irreducible causal origins? If we wanted to make sure that mental states are irreducible origins, without physical antecedents or correlates, we should contemplate a sort of continuous miracle, where acts of consciousness take place without any material concurrence, creating energy from nothing and supplying it to the body limbs. In other terms, if only the irreducible antecedent counts as "true cause", then the hypothesis that we are called to test borders with magic: no principle of conservation of energy would apply, and everything would happen only because a pure and disembodied consciousness is expressing itself. Yet, how could we ever verify the occurrence of a state of consciousness without any physical incarnation? Should we trust what a subject tells us about his/her interior events? But even the utterance of words is already a concurring physical event. In fact, a purely and totally disembodied state of consciousness does not even seem testable in principle.

But if our conceptual model does not even clearly allow us to envisage conditions of verification or falsification for what otherwise appears obvious to us (the causal relevance of our acts of conscience), perhaps it is our very model that is defective. Perhaps the problem lies precisely in stiffening the identification of causality in the search for temporal antecedents. Actually, if we were to legitimize only an irreducible antecedent as cause, neither any physical event could be uncontroversially defined as cause, since every state of matter, cerebral states included, will have been preceded by an infinite unknown chain of events.

And if among these causes someone liked to recognize as "*primum movens*" the creative will of a god rather than primordial chaos, this would be a matter of metaphysical taste rather than scientific demonstration.

This is the same paradigm of ontological causality that we find in the so-called principle of causal closure of the physical world, such that "if a physical event has a cause at t, then it has a physical cause at t" (Kim 2006: 200). This principle is informative, and not merely redundant, only if "physical" indicates a restrictive, specifying characteristic in the field of descriptions, and not if it merely coincides with everything that somehow "is". If "physical" means "describable in the language of physical science", then this principle defines the scope of what counts as actual reality. Yet, in that case we should assume that we have at our disposal a physicalist description for every causal process we recognize as such; and this is not just very far from being true, but even far from being clearly conceivable. If, on the other hand, "physical" generically means "having a material component", then a more realistic scenario opens up.

We can get out of this impasse by questioning the reductive notion of causality which conceives it as a sort of undifferentiated transmission of "causal power" ("matter-energy") from the antecedent to the consequent.

Actual causality cannot be meaningfully represented by the mere idea of a quantitative energy transfer. What is essential for the identification of a cause and an effect is that a certain qualified event produces another qualified one: that the seed produces the plant, that rain makes it bloom, that fire destroys it are representations of ordinary causal sequences. The idea of causality conceived as a homogeneous transfer of the same shapeless "power" (energy) can account just for a minimal subset of the relationships that we interpret as causes. It accounts for abstract ideal situations like when the increase of a force applied to a mass contributes to its acceleration. But the causes we ordinarily experience are such that an event endowed with a form produces another event endowed with a form: the buried seed germinates and grows if wet, and burns if set on fire. Structured events give rise to other structured events, qualified things produce other qualified things, and imagining these mechanisms as if they were the non-specific transmission of a homogeneous substance (matter-energy) is a way of forcibly reducing quality to quantity.

Each entity endowed with a form does not limit itself to operating as a non-specific quantum of energy, but produces effects which are qualified by what it *is*: an excited atom will transmit certain effects, depending on what atom it is, and so will a specific cell, so will a certain organism, etc. Each link in a causal

chain *modulates downstream effects*, informing them with its own characteristics. The causal transmission therefore depends on the "*form*" of the entities involved in it. There are causal processes that selectively *concentrate* energy through positive feedback processes and others that *dissipate* it through negative feedback processes. It is not enough to say that in a previous step some amount of energy was available, but it is essential to know what was the nature (essence) of the elements involved in its propagation.

In a human being the very same molecule, such as serotonin, depending on the organic configuration in which it is inserted, can condition the development of the pulmonary smooth muscle in the embryonic phase, it can influence the adult's peristaltic movements, sleep, bladder functioning, stress response, cardiovascular functioning, mood, etc. This picture can find expression by recovering the notion of *formal cause* from the philosophical tradition. The so-called "efficient cause" understood as a quantitative physical cause is only a quite particular instance of formal causation, which is the ordinary causal genus, where the type and extent of the produced effects depend on the nature of the elements involved.

This reasoning paves the way for understanding how mental states can be causal powers: they are not causes in that they "add energy", but in that they "give shape" to the matter-energy with which they interact. Thoughts, projects, units of meaning give form to a way of perceiving and acting, which in turn can shape an entire environment. The subject who grasps the configuration of meanings inherent in the idea of "house" can transmit that configuration to others, and over time this may lead to building a city. In turn, the kind of experiences that can be made in a city, and the very effects of the urban environment, can constitute new formal units, new units of meaning that can lead to varied effects of a historical-social nature. These are manifest instantiations of ordinary mental causation.

This view must not be confused with an idealist vision in which mind produces matter. The most sensible way of conceiving consciousness as a formal cause is to recognize that the mind is something that grows together with the surrounding matter (environment), something that informs it and at the same time is informed by it. An evolutionary vision in which the mind is envisaged as an "emergent form of matter" is quite compatible with this picture.

This perspective allows us to understand in what sense consciousness as such can be understood as a *determinant of reality*. What shapes both the per-

ception of objective phenomena and their functional descriptions is consciousness. Here we must return to the initial considerations that we have introduced regarding the nature of "phenomena" and their bearing on reality. In phenomenological terms, not all phenomena have the same level of reality, but all phenomena *are realities*, they are *reel* (not *real*).[4] What we call "illusion" is simply a phenomenon that is placed at an inappropriate level of reality: for example, an imagination that is hallucinated as perception is illusory. But this does not mean that imagination as such has no reality. That imagination has reality is demonstrated most clearly by the fact that certain things can *only* come into existence if previously imagined (by plans).

In Husserl the key concept for understanding the relationship between consciousness and the world is that of "constitution" (*Konstitution*). Consciousness is said to "constitute" the world not in the idealistic sense of a creation, but as individuation of the units of meaning into which being is segmented.[5] This already happens starting from the living bodily sphere from which consciousness emerges: the sensible world is articulated (is constituted) in unity as it is correlated with the sensuous consciousness that animates our body (Hua V: 119-120). The *being* of which an ontology can speak is therefore determined by the necessary universal correlation between consciousness and the world (Hua VI: 169). On the ontological level, this can be translated into a revival of the Aristotelian notion of "formal causality".

Consciousness does not affect reality as if it provided an autonomous source of "energy", which would give it a properly "supernatural" character, breaking the laws of conservation. Consciousness intervenes as a formal dimension that orders, selects, and modulates what pertains to life in its own *Umwelt*. Idealism has often been tempted to read this fact by ascribing to consciousness a sort of sovereign power over the world, an ordering capacity that issued into full-fledged creativity, but the most correct way to understand the role of consciousness is to see its character as *structural correlate* of the world. It is in the nature of consciousness to be a concretion of being that *selects the way ontological efficacy can touch it* and thereby *selects which effects can become real*. Con-

[4] In Husserl *Realität* names the spatiotemporally identifiable reality, which is constituted by difference from the immanent sphere of experiences which is also real (*reel*) (see Hua III, §§ 41-42).
[5] "Alle realen Einheiten sind Einheiten des Sinnes. Sinneseinheiten setzen [...] sinngebendes Bewußtsein voraus" (Hua III: 120)

sciousness (the mind) is a system that selects and modulates the ontological efficacy to which it is always already entrusted (the flow of "matter-energy" from which it emerged).

5. Conclusions

At this point we can return to the initial questions and draw some basic conclusions. Naturalism is that vision on the basis of which subjectivity - consciousness - cannot play any fundamental role on the ontological level, on pain of falling into dualism or a form of supernaturalism. The implications of this approach have hit hard in particular the *ethical* system of the Western world, where, in the wake of the operational success of the natural sciences, an objectivist ontological model established itself, whereby the entire axiological sphere can only claim an unreal status. A world in which consciousness and value are debased into mere appearance or epiphenomena is a world inevitably and necessarily emptied of any dimension of sense and meaning.

The phenomenological perspective is able to reopen a horizon of meaning that the naturalist approach had artificially closed. Compared to the options that came forth once the naturalistic ontology had consolidated ("supernaturalistic" dualism or "epiphenomenalism" of consciousness), the phenomenological approach brings to light a third option. This third way gets rid of that kind of illusory projection according to which "natural reality" must ideally coincide with its *physical description*. Physicalist accounts in this framework represent only a peculiar descriptive mode, a secondary source on what reality is (the primary one being perception). The prestige enjoyed by physical accounts is not an ontological property, but a pragmatic preference, which depends entirely on the functionality of these descriptions for the subject (or better: for some subjects in a historical phase).

The only sensible way to conceive "reality in itself" is as a *relational whole* of which an indispensable pole is represented by consciousness and its telic tendencies. When naturalism describes "natural reality" as a mere object, we are in the presence of a form of intellectual prestidigitation, which makes disappear the describing subject and its instances.

Husserl's phenomenology, therefore, is the historical counter-move capable of defusing the process of "disanimation" (*Entseelung*) and emptying of meaning produced by the historical establishment of naturalistic objectivism. Its fundamental ethical contribution therefore does not lie so much in providing a

positive ethical proposal, as in reopening a horizon of meaning that had been removed and hidden by the theoretical constructs of modernity.

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