

ANIMALS, ETHOLOGY AND PHILOSOPHY *

ANIMALES, ETOLOGÍA Y FILOSOFÍA

ROBERTO MARCHESINI
Centro Studi Filosofia Postumanista
Bologna, Italy.
estero@sua.it



ABSTRACT

The question of animal subjectivity combines philosophical and ethological research. In this essay I have faced the problem with a philosophical ethology approach. I believe it is wrong to attribute subjectivity to conscience, for two reasons: 1. it is a *petitio principii* which does not explain the subjective condition; 2. does not consider the high subjectivity of the unconscious. If consciousness is like a light that illuminates cognitive processes, subjectivity, as result of the individual's inner world, precedes consciousness. My proposal is based on a new model of animality that challenges the Cartesian vision

of animal machine, governed by automatism. The innate and learned endowments must be considered tools, available to the individual, not automatism that move him. This means applying a schema model as opposed to the traditional associative model. This transformation makes the individual user and not a slave to his endowments. The scheme model, like the map of a city, allows more functions and gives the individual the possibility to generate new uses to face novelty situations. It also responds to Morgan's canon of parsimony, because it allows the use of the same device for multiple functions and as a heuristic to make targeted attempts in solution processes. Subjectivity is then the ability to immerse oneself in situations, using endowments as tools to enter into a relationship with the world. Subjectivity is Heidegger's Dasein, an ontological quality that characterizes animality. This quality arises from the desiring nature of the animal, which continually leads it to enter into a relationship with its surroundings, hybridizing with external reality. Desire arises from the condition of "being a body" and cannot be assigned to a particular body function. Being desiring makes the animal an entity in continuous transformation, never thinkable in a static way, because it always tends to overcome itself.

Keywords: philosophical ethology; animal subjectivity; desiring condition; explanatory models; animal Dasein; animality; *Umwelt*.

RESUMEN

La cuestión de la subjetividad animal concierne a la investigación filosófica y etológica por igual. En este ensayo he enfrentado al problema desde un enfoque etológico filosófico. Creo que es incorrecto atribuir subjetividad a la conciencia, por dos razones: 1. es una petición de principio que no explica la condición subjetiva; 2. No considera la alta subjetividad del inconsciente. Si la conciencia es como una luz que ilumina los procesos cognitivos, la subjetividad, como resultado del mundo interior del individuo, precede a la conciencia. Mi propuesta se basa en un nuevo modelo de animalidad que desafía la visión cartesiana de la máquina animal, regida por automatismos. Las aptitudes innatas y aprendidas deben ser consideradas como herramientas, disponibles para el individuo, y no como automatismos que lo mueven. Esto significa aplicar un modelo de esquema en contraposición al modelo asociativo tradicional. El modelo de esquema convierte al individuo en usuario y no a un esclavo de su dotación. Este modelo es como el mapa de una ciudad, en cuanto habilita más funciones que le otorgan al individuo la posibilidad de generar nuevos usos para enfrentar situaciones novedosas. También responde al canon de parsimonia de Morgan, porque permite el uso del mismo dispositivo para múltiples funciones y como heurística para realizar intentos específicos en procesos de solución. La subjetividad es entonces la capacidad de sumergirse en situaciones diversas, utilizando la dotación como herramientas para entrar en una relación con el mundo. La subjetividad es el Dasein de Heidegger, una cualidad ontológica que caracteriza a la animalidad. Esta cualidad surge de la naturaleza deseante del animal, que lo lleva continuamente a entrar en relación con su entorno, hibridándose con la realidad externa. El deseo surge de la condición de "ser un cuerpo" y no puede asignarse a una función corporal en particular. Ser deseante convierte al animal en un ente en continua transformación, nunca pensable de forma estática, porque siempre tiende a superarse a sí mismo.

Palabras clave: etología filosófica; subjetividad animal; condición deseante; modelos explicativos; Dasein animal; animalidad; Umwelt.

1. PREMISE

In this essay I take up the concept of philosophical ethology as a key idea to describe a non-reductive and non-deterministic theory of ethology. Although I draw heavily on classical ethology, cognitive ethology, and neuroscience, as well as on knowledge from behaviorism, I articulate a non-dualist and emergent understanding of ethology that must be understood as a properly philosophical undertaking. I argue to point out that Konrad Lorenz offers invaluable tools for philosophical ethology, but that Lorenz must be reread philosophically to dispense with outmoded claims and to incorporate advances in evolutionary, neuroscientific, and ontological thought. I organize my understanding of philosophical ethology around a fundamental challenge to the Cartesian dualism that persist in classical ethology and partially in cognitive ethology. A revisiting and dismantling of the Cartesian ontological frame is necessary to articulate an open and emergent systems understanding of ethology that can describe the capacity for managing novelty in the world demonstrated by animals.

On the basis of this flexible response, that is formed by phylogenesis but always contains an open horizon due to the way that animals engage novel situations in the world, in this essay I argue that animals are subjects who demonstrate ownership over their biological endowments. Animals are subjective in deciding how to act in situations made explicit in the world. I also argues that a fundamental error has been made in attempting to base subjectivity on consciousness. I believes that it is precisely the reverse, that consciousness is predicated on subjectivity – otherwise, of what would it be conscious? My theory of philosophical ethology, as expressed in this essay, is what I calls an “instrumental” understanding of biological heritage based on “ownership.” I identify the predicates that animals, humans included, receive through phylogenesis as “tools” that they use in their action in the world rather than as deterministic structures open to only one function. Since animals have “ownership” over these biological resources a multiplicity of possible actions is possible, rather than a single stimulus–response. And since the world continually presents novel situations of challenge and interaction to animals, each situation can at most stand in “similarity” to earlier ones rather than in “identity.” Animals as open

systems managing novelty in the world are continually taking on new information from interaction that modifies their being and relating.

Over the past century, the research on animal subjectivity has had to face several obstacles. On various occasions, there have also been waves of anthropomorphism and projective (more than continuist) interpretations of the animal behaviour followed by reductionist or mechano-morphic reactions. Some authors have applied the reductionist explanation to both the human being and other species – think of Skinner’s behaviourism¹ or Wilson’s sociobiology (1975)² – filling humanists with indignation and arousing fierce criticism in most of the philosophical and anthropological community. Others, instead, have preferred to follow Descartes’ dichotomy, which allows one to explain animal expression through mechanistic coordinates without harming the ownership of anthropocentrism.

To consider animality as *res extensa* means to transform its expression into a sum of automatisms that are activated either by external stimuli or by inputs directly derived from somatic physiology. The explanatory mechanism offers significant methodological guarantees, because: i) it answers, or rather seems to be devout,

¹ At a first sight, the two traditional accounts – as expressed by Skinner, on the one hand, and Tinbergen, on the other hand – describe mutually incompatible explanatory models: 1) according to behaviorism, the animal works as a trigger machine, 2) according to classical ethology, the animal is a pressure cooker. As we can see, these two explanatory models are predicated on a basic assumption that is not called into question, namely that the animal is a machine. The scientific explanation of animal behavior, in searching to define “how the animal machine functions” and restricting itself to defining features of animal mechanisms, has never problematized the Cartesian paradigm of the animal as automata. The only thing that has been problematized is whether that mechanism is an instinct or a conditioning. As in Kuhn’s view, science has only chosen the type of machine, remaining well anchored to the philosophical paradigm. For this reason, I believe that only a philosophical approach which problematizes the basic paradigm – namely the Cartesian idea of animal automata – can really overcome ontological anthropocentrism: unless the human being is viewed as nothing but a puppet deterministically moved by strings. The main principle is refusing mechanism, or, to put it differently, acknowledging animal subjectivity. In order to do so, a paradigmatic alternative to Descartes must be found.

² On this aspect, cf. Shalins 1976.

to Ockham's razor, redefined within Morgan's canon of parsimony; ii) it does not call into question external or tautological entities, such as the *res-cogitans* or the homunculus, which avoid the test of scientific explanation; iii) it agrees with the epistemological principles of description, falsifiability of the explanatory hypothesis, and causal modelling; iv) it is perfectly consistent with the canons of Western culture that radically separate animality from the human condition.

During the twentieth century were thus developed some very convincing interpretative coordinates that seem to have put a tombstone over the theme animality: 1) the animal expression found a final explanation in the set of automatisms; some driven by phylogenetics and derived from the innate (instincts), others emerged from ontogenesis following the law of effect, and thus learned by the individual (conditioning); 2) human beings distinguish themselves by separating or emancipating themselves from the animal condition; the human evolution is not analysed in terms of adaptive specialization - that is, in a specific sense - but rather in terms of lack of adaptive declination - that is, the human being is special, free from automatisms and thus autopoietic. This interpretation separates subjectivity from animality so as to connect it closely to reason, language and consciousness.

This "speciality" - rather than "specificity" - of the human being has given rise to different interpretations, from Martin Heidegger's ontological difference³ (1995) to Arnold Gehlen's adaptive deficiency in line with the humanistic paradigm (1950). However, these interpretations are all essentially based on Descartes' dichotomy, which aims to lead animality back to the determinism of the *res extensa*, from which humans distance themselves for their meta-predicative abilities. According to this

³ Martin Heidegger understood this aspect very well when he realized that the predicative explanation, still in vogue among the old humanists fascinated by the plasticity of the Vitruvian model, was not the crux of the matter because the difference between the human being and the animal otherness was ontological and thus meta-predicative. The animal machine can perform actions, take part in some functions, be comprised in a period of time, and so on. But if/until it remains a machine, it will never be really present, because a machine is in an isochronal state and does not own a *hic-et-nunc*.

interpretation, humans were not born from a particular declination of their animality but by emancipating and distancing themselves from that dimension. Darwin's theories have been adapted to this interpretation as well, so that the human condition is not the outcome of specific adaptation or predicative declination to a certain performativity: it is rather due to a sort of reverse effect.

Animality thus falls into the realm of determinism, that is, the mechanical translation of behavioural automatisms that are necessary/exhaustive to explain animal expressiveness: the animal is the sum of its automatisms and its expression is their functional outcome. Cognitive ethology – a branch that attracted a multitude of authors, from Kohler (1947) to Griffin (2001) – tried in vain to introduce fragments of subjectivity into the animal-machine by recognizing in it levels of intentionality that, albeit lower than those of a human being, can bring out a glimmer of subjectivity by reflectively and explicitly taking care of some processes or psychological states. Subjectivity is thus related to the knowledge of states such as emotions, intentions, the creation of goals and strategies (that is, behavioural molarities), the ability to find solutions through insight, the creation and use of tools and so on. In this context, one is subjective insofar as one is aware of what one feels or expresses through behaviour.

This theory shows very well some of the main events of animal psychism: evaluation, judgment, decision, planning, simulation and creativity. However, I believe that it does not help understand the foundations of animal subjectivity, because, as long as one models the endowments as automatisms - that is, as expressive cogencies - there is no room for behavioural flexibility. A machine endowed with consciousness can only take care of the mandatory nature of its mechanisms. Therefore, to add a consciousness to the traditional model of the *res extensa*, which would only restore Descartes' dualism by trading the metaphysic *res cogitans* with an informatics or cognitive *res*, is not a solution. What really matters is to question the very principle of *res extensa*, that is, the modelling which animality is based on.

The ethological research, as well as the cognitive one, has analysed predicates in detail, without questioning Descartes' paradigm of the "animal machine". Instead, it has simply proposed, each time, a particular model of machine: i) a psy-

cho-hydraulic machine in classical ethology; ii) a cybernetic or feedback machine in behaviourism; iii) an informatics machine in cognitive proposals. My goal is therefore to question the basic paradigm, that is, the animal ontology, in a conception of existential - and therefore ethologic - plurality. In order to do this, I will start from a meta-predicative and therefore philosophical reinterpretation of the animal.

First of all, some important points have to be developed: 1) the basic model that explains the individual's natural and acquired endowments must be redefined; 2) the concept of subjectivity must be reintroduced, without falling into the tautological trap of consciousness or other dead ends that would lead to an infinite regress; 3) one must explain the emergence of the psyche rather than the total state of the body and its relations with the outside world; 4) the concept of existential plurality must be highlighted, avoiding the anthropocentric tendency to consider the human being as term of comparison so as to grant the heterospecific a certain form of presence.

It should be said from the outset that one can speak of subjectivity only by acknowledging an "ownership" of the behavioural endowments: the individual uses the endowments; they do not control him. Otherwise, if the endowments were able to directly explain animal expression, there would be no room for the subject to appear. Moreover, one must wonder whether a different paradigmatic structure could better explain the animal behaviour: i) by resolving some inconsistencies present in the current explanatory models; ii) by avoiding to call into question entities that are metaphysical or that cannot be explained clearly; iii) by respecting the principle of parsimony.

2. SHIFTING FROM AN "AUTOMATISM-BASED MODEL" TO AN "TOOL-BASED MODEL" IN ORDER TO EXPLAIN THE ENDOWMENTS

To be able to talk about true ownership, one must first of all modify the model that describes and explains behavioural endowments. The mechanistic model is based

on the concept of “automatism”, whose structure is as such able to explain the expressed function. The automatism transforms the behaviour in a sort of imperative and substantially deterministic reflection in the function produced, where an access lock for the stimuli (both internal and external) corresponds to a behavioural mechanism, such that each input matches a precise output. Both the key signal describing the instinct and its elicitive processes, and the structure of classical conditioning taking part in the dialogue between stimulus and response abide by the same basic requirement: the mechanism exhaustively and cogently explains the behaviour. The automatism thus becomes the explanatory paradigm of both the phylogenetic heritage and the learning processes.

Complex behaviours can also be explained through this modelling, considering the single automatism as nothing but the atomic unit from whose composition in sequence - the behaviourist chaining - or in other correlative, synergistic or antagonistic forms, any complex behaviour may result. To consider behaviour as the sum of automatisms activated one after the other leads to an analytical explanation of animal expression, where each molarity is led back to molecularities combinable with one another, in a context of expressive, rather than virtual, units. In order to understand this explanation, it may be useful to picture dominoes in which each piece can be a meaningful answer to the incoming wave and a stimulus for the next one.

A modelling that does not take place through virtual connections but through a succession of expressive units does not take into consideration the organization of the neurobiological system that has a connective-systemics, rather than associative, structure. As soon as one considers the mental state as a particular systemic activation of the network - that is, as one of the possible “states of the network” given by a certain connective activation of its structures - the model shifts considerably. Without considering every single behaviour as a specific expressive domino structure, the functional unit could be seen as a “group member”. However, its outcome derives from the systemics. Supposing that each functional unit allows for a different expressive conversion that depends on the systemic configuration activated at a particular time, one is faced with a model that is more parsimonious and more responsive to neural connectionism than to those autonomous units called associations.

The functional systemics thus shows endowments that are more reminiscent of a map schema than a domino game - that is, their structure can take different functional configurations, implying a series of possible expressive paths - and thus gives rise to a multiplicity of functional outcomes. So, thinking about the difference between a domino-based model and a map-based model, one can immediately realize that the functional meaning shifts considerably. While the domino-based model exemplifies the functional automatism (perfect translation of unavailability and determinism), the map-based model shows endowments as tools. This shift in the “explanatory model” is quite significant. In the automatic model, the ratio of structure (what it is) to function "F" (what it does), can be represented as 1:1 – that is, “what it is = what it does”, so that the function can be obtained from the given structure. In the instrument model, the ratio of structure to function is 1: range F – that is, the instrument-endowment a) arranges itself, b) gives competence, c) becomes available to the function but does not determine it.

To consider the systemics responsible for the specific functional translation of the endowments means to recognize a surplus in the explanation of the expressive component that cannot be directly traced back to the endowments. This does not mean to deny the endowments a performative characterization, but to think that the endowments develop a range of F (possible performative outcomes) so that every expression is nothing but the result of the particular functional configuration that the system gave to the endowment. The map defines – or, one could say, virtually subsumes - a set of possible paths without establishing which one should be taken. But then, a map is much more economical than a sequence of individual paths to manage the changes that may intervene in one's path and also to flexibly adapt the paths in ordinary situations.

On the other hand, what does it mean to shift from an “automatism-based model” to an “tool-based model”? Well, if one considers the concept of ownership a prerequisite for the debate on subjectivity, then this shift means a lot. While the automatism governs the individual, the tool *is used by* the individual. One could think of natural or acquired endowments as an instrument such as the hammer: I use the hammer; it does not control me. There is an important difference: while an

automatism would transform the animal into a puppet moved by wires, the tool is controlled by the animal who has broad flexibility in use. The functional completeness of the automatism would transform the individual in nothing more than the sum of its automatisms. This modelling metamorphosis, for example, is easily proven by the phenomenal analysis of the animal behaviour in the learning process: once an animal has learnt an operational schema, it then uses this schema in situations different from those in which it was acquired. Also, it uses it on the basis of flexibility and functional co-option, recalling Piaget's dialectic of assimilation/accommodation⁴ (1974).

The endowments can therefore be described as a "modal schema" that is body-referred (that is, it refers to the different functions of the body) and body-topical (that is, it identifies some specific involvements of the body). Furthermore, its structure implies and therefore allows for more functional paths, depending on the specific configurations of activation. The modal schema is therefore dynamic, multi-functional and evolutionary; its fractal structure in the synaptic networks allows the body to be relationally present in space. In other words, the endowments are the body's tools and not vice versa. In order to offer the best performance to the relational needs of the body, which moves in an ever-changing and therefore unique reality, the endowments cannot give rise to static, mono-functional and unidirectional structures - like the stimulus-response interpretation would suggest - and must rather predict enactivism, as in the thought of Francisco Varela. In other words, the modal schema can neither be assimilated to a sensory-motor "unity of expression", just like in the behaviourist interpretation, nor can it be assimilated to an "amodal representation" of the external reality, just like in the cognitive interpretation.

⁴ The child, for instance, uses processes of ex-aptation (Gould 2002) or assimilation-accommodation (Piaget 1970) to build new representations, therefore the sympathetic elements give him the possibility to anchor the unknown elements and to extend the representational horizon of the child. The epiphany effect raised from the recognition in the heterospecific, the co-feeling in him, but at the same time in the being gradually projected in another dimension.

To consider knowledge as the definition of a specific “modal scheme” implies that cognition does not fall outside of the body, it is not amodal or computational and it uses instruments that reproduce virtual fields of somatic relationship with the external reality. In this sense, a modal scheme is a sort of map of possible body-world conjugations related to a particular type of somatised dialogic states. The modal scheme defines some “useful functional range” so as to decline in a certain way the relationship between body and external reality. The body, therefore, indicates a field of relationships – this is the ultimate heterotrophic and vagile constitution of animality - declined through modal expressions. This relational state or embodiment cognition concerns a plurality of elements that cannot be translated into - or reduced to - the mere sensorimotor dialectics. Subjectivity, therefore, emerges from the systemics of this relational constitution that dialogues with the world through useful modal schemes.

The paradigmatic transformation implied by this modelling metamorphosis concerns different aspects: i) the parameter of instrumentality or of the expression’s distancing from the endowments themselves; b) the parameter of modality or assimilation of the endowment tool to the body; c) the parameter of relatedness or conjugative capabilities of the endowments. The tool-based model gives an endowments-based character to the phylogenetic and ontogenetic instruction, in the sense of “being useful for” - that is, to structure possible “expressive modals” instead of identifying them, that is, instead of looking for “expressive motives”. Subjectivity lies in the denial of this “functional completeness” that would turn the animal into a set of mechanisms activated by stimuli. By considering the information (innate and acquired) as tool rather than automatism, one lets the animal be the owner of its endowments: it uses them; they do not control it. A tool can be used in a thousand different ways, and with creativity as well. To be subjective means to be the owner of one’s own tools, to test them in new situations, to modify them and to create new ones as well.

But why is a tool-based model more suitable than an automatism-based one? The answer lies in the “principle of singularity of the real”⁵ (Marchesini 2014): the world presents itself in similar but never identical conformations, so that the individual is always faced with some “margins of newness”. If one’s endowments were automatisms, one could not face the changes, because the automatism does nothing more than repeat the accredited function. For this reason, a software that plays chess through an algorithm would not be realistically possible. In order to control singularity, the animal must be able to use its endowments in a free and flexible way, through ex-aptation (1982) and with creativity. At this point, the evolving nature of these endowments becomes clear: they are constantly transformed according to the individual’s specific use.

3. SUBJECTIVITY AS PRESENCE AND SYSTEMIC EMERGENCE COMPARED TO THE CONTENTS

To connect subjectivity to a relational systemics of the body, whose multilayer of positionality exceeds the input-output dialectics, means to overcome Descartes’ dualism that is still present in cognitivism, makes the individual’s Dasein an abstraction and desomatizes subjectivity. The disjunction from the body may indeed be pursued not only by admitting a metaphysical *res cogitans*, but also by reading it through informatics and thus translating it in an amodal way, just like it happens in the computational formalism that tries to interpret the cognitive function. Reason, language and intentionality, along the lines of the post-Cartesian philosophy, become

⁵ Knowledge anticipates being able to use a foundation of stability-familiarity to project oneself into an unknown dimension, which in turn can construct a new “plane of reality” – to quote Speusippus as recorded by Aristotle – and so to begin a new adventure. Leaning out into an unknown dimension remains dizzying, and one cannot make the transition without the assistance of an other: to construct this dialectic, the hybridizing process, which can open new epistemic dimensions, is indispensable.

disjunctive principles-operators compared to a *res-extensa* body that continues to be interpreted as a reactive entity rather than as a presence-relationship. This is a passive body that, affected by a stream of world, reacts in a mechanical way. According to dualism, one is a subject inasmuch one is emancipated from one's own corporeal root and, by assimilation, from one's own animality. In this paradigm, there is no room for an animal subjectivity. Moreover, the human subjectivity is separated from the meta-predicate of animality as well: one is a subject despite being an animal.

According to the mechanistic explanation of the *res extensa*, animality is not a relational positioning, that is, a *Dasein*. Rather, it is simply a reactive structure, that is, a set of motions activated by the stimulating and elicitive intervention on access-locks. If the animal-machine paradigm remains intact, some exhaustive models of expressiveness will inevitably be identified. Such models are able to fully explain the expression that the individual manifests in the timeless immediacy of his being. Martin Heidegger eloquently explained this subject-less animality as the stunned condition of beneficiary-reactive immediacy that, lacking presence, cannot be present.⁶ However, this is a *petitio principii*: the model that explains the animal expression was intended to fully respond to the mechanistic requisites of the automaton-animal paradigm. There have been several debates on what kind of machine the animal is, but the paradigm that relates the animal condition to the machine has never been questioned.

⁶ Heidegger clarifies Descartes' unsaid. The mechanical translation of animality created an unbridgeable gap between humans and other species and, simultaneously, it definitively sanctioned its operative freedom over the non-human universe. Since the seventeenth century, this paradigmatic development has been undoubtedly difficult and controversial: the point was to accentuate the dialectics of exclusion that was only in nuce in the early humanists. Therefore, it is no surprise that in addition to the hypothesis developed after Descartes' death (which increasingly amounted to a reductionism of animal expressiveness), proposals to restore subjectivity in nature came back, albeit in an intermittent way. On the other hand, countless factors privileged the reductionism to which Descartes offered a particularly effective paradigmatic crux - first of all, the autocratic and autopoietic operation of the human being as the sole protagonist, a principle that had already been active in the Western humanist metamorphosis for two centuries.

Moreover, I believe that the reference to the machine is important because it highlights the great differences between the animal and the machine. First of all, it is necessary to say that, despite the apparent coherence with the scientific canon, the statement “the animal is a machine” does not meet the criteria of falsifiability of the hypothesis since no machine, even as a theoretical formulation, can do what even the simplest of animals can. However, the specific characteristics of a machine are the real problem: i) the completeness of its functional contents-directions compared to the performative outcomes; ii) its self-containment, that is, the fact that it is never in a developmental condition, even when it introjects outside information; iii) its lack of only functional coordinates among the functional motives; iv) its isochronic and therefore atemporal condition compared to the unavoidable diachronicity of a living organism; e) its lack of teleological structures relatable to the individual’s past motives.

When one observes an animal and tries to interpret its behaviour, one is inevitably faced with an “explanatory deficit”. Therefore, one usually adopts epistemological strategies based on causal plurality, such as the presence of both proximate and remote causes in Ernst Mayr’s formulation (1997) or Niko Tinbergen’s four questions of ethology (1951).⁷ The mechanistic translation cannot grasp the surplus of the animal behaviour; this can be grasped only by confusing the shared styles with the individual’s actual expressive interpretation. Such a process can be attributed to an epistemic bias of categorization. Animality is thus the individual’s unique position in the here-and-now: the individual’s ability to interpret her own here-and-now

⁷ These two statements are misleading, but they offer themselves to reificatory projections. Starting from statement a), both Ernst Mayr, when talking of remote and proximal causal duality, and Nikolaas Tinbergen, in posing his four questions, exhorted us not to conflate evolutionary compatibility, dictated by the fitness of the subject, and elicitive compatibility governed by hedonic-elicitive principles that the individual is subject to. So if it can be proven that the fitness of altruistic behavior responds to the parameters of Hamilton’s coefficient of relatedness, then it is equally true that an individual possessing a given trait may express it toward any entity which is capable of eliciting it, for example the expression of maternal instinct by an adult female of one species toward a cub of a different species. The explanation that refers to fitness tells us only whether an attribute is compatible in individuals of a given species, not why an individual would express it.

with creativity, flexibility and partiality. One can therefore say that if the endowments, either natural or acquired, were a script for the individual to follow, the animal would be the result of the actor's interpretation rather than the mere repetition of the contents of the script.

If the endowments are considered as tools rather than automatisms, the expression cannot be derived directly from these; it should rather be derived from the positional systemics of the individual who bends the tool to a particular function. The behaviour is thus a manifestation of the animals' unique and systemic state. The animal uses its own modal schemas by extracting the specific function from the range of virtualities required by the schema. Mentioning once again the example of the script, one can thus say that subjectivity lies in this interpretative singularity, in the actor's ownership of his part, on the basis of an overall status. In other words, the best way to understand subjectivity is to consider it as a result of an emerging singularity of the systemics. The animal expression, therefore, should not be regarded as the sum of the mechanical expressive units, but as an overall state of the system that, as a whole, extracts a particular functional declination from the functional virtuality of the endowments.

Subjectivity is thus the animal expression that cannot be reduced to its endowments, despite the modal value that they introject. When one talks about a systemic condition and an emerging singularity, one refers to an entity that owes its virtuality to the redundancy - rather than linearity - of the expressive mechanism. The body is not made of strings and pulleys; it is a living entity that is constantly growing and converses with the outside world so much that every liminal definition is arbitrary. Where does the body begin? Where does it end? The answer would be apparently simple but, on closer inspection, every definition of "border" is arbitrary. The body is placed on a variety of levels (sensory, metabolic, endocrine, immunological, motoric, symbiotic) that converse with the outside world. Also, positionality - the emerging singularity - is the chaotic outcome of this continuous chatter of the body. In this sense, the subject's mental state can be considered not as a homunculus, but rather as a set of overlapping hierarchical levels whose predicates appear before the units that compose it.

Consequently, there is no control unit or place of subjectivity, but an emergence of functional states that define “different levels of subjectivity”. These levels must carry out different functions, since the subject’s behavioural needs are different. However, in their entirety, they define an inner world assembled in a way that is anything but logical, with very dystonic identity instances. Diachronically, the emerging positionality creates a continuity of identity: an inner world that, through its partiality, expresses this momentary “feeling a certain way” - the title of the singularity. To be subjective means to have an identity - a biography - that is the outcome of several moments (the history of the species, gestation, developmental age, adulthood) and relationships with the world. These stories coexist and each one bears specific motives. A causal plurality is therefore determined: the subject is always a Harlequin serving several masters. These stories are summarized in the individual that, precisely for this reason, is singular: this means to be unique and unrepeatable but, above all, it means that an animal’s behaviour can never be predicted in detail.

However, this unpredictability should be attributed to being part of different casual temporalities rather than to the mere fact of being a complex system. The individual suffers from what her species has phylogenetically learned and introjected within the genetic and epigenetic inheritance of phenotypic translation, within the parental and cultural structures of ontogenetic translation. The individual is affected by both the first relationships she had with her parents as a baby and those that she had with her peers during childhood and that built her basic character. The individual is affected by her experiences and by the proximal plan of experience introjected. She has developed an evolutionary differential that depends on the received stimuli; she has built a specific knowledge. She responds to all this. Biographical identity is a work in progress, because the animal is constantly learning and therefore constantly changing its identity. The expression of a given behaviour is also the exercise of certain behavioural traits, so that every time that an animal performs an action, it transforms its own identity. The constant evolution of identity could be compared to muscles that are trained and therefore grow while working.

Therefore, to be subjective means to change, to never be equal to oneself, to be unfaithful to one’s past. Also, learning is not a particular moment of subjectivity,

but the very foundation of the subject: subjectivity means to possess an inner world in constant transformation. To be an animal means to dream, plan, build strategies, reflect on possibilities, evaluate the hidden contents of a situation, do mental simulations on different tactics. Subjectivity is the result of the animal's mental life, that is, a sort of inner theatre where each orientation is compared with all the others: Lorenz called it the parliament of instincts (1966). The result is therefore always systemic, reflective and interactive involving different parts; it is never mechanical, analytical or like a ripple effect.

The mind as a system gives life to thought. It retreats into itself and leads to more or less conscious global decisions. However, the mind is not consciousness: consciousness is just one of the many functions of the mind. Moreover, mental subjectivity takes place especially in the unconscious: nothing is more subjective than the unconscious that manifests itself through desires, dreams, states of alteration, emotional images, unfolded memories, confused projects. In fact, one could say that consciousness is often a censor of subjectivity. The mind is an internal ecosystem: a microcosm that cannot overlap the macrocosm world in which processes of reality take place. The mind puts the animal being in the world, but at the same time it allows it to distance itself and reflect on given situations through a complex elaboration of all available information. The mind can transform all the events of the world in meanings – that is, it can translate them into categories of risks and opportunities and therefore perform an immediate decoding that allows it to make decisions.

4. PSYCHIC EMERGENCE AND POSITIONAL-RELATIONAL STATE OF THE BODY

The idea that the mind emerges through levels of appearance from all over the body and is not simply related to it, leads one to consider the psychic phenomenon as the result of being-a-body, disagreeing with Descartes' having-a-body and all its amodal and representational variants. The animal's ontological level must therefore be redefined and subjectivity must be brought back to the very character of animality. To

be an animal does not mean to orient oneself towards something in an exclusively motor sense, but rather to assume a constitutive lack that demands to be revived through the relationship with the world. The body is shaken by positional states in its very metabolic entity that “is-done” and can never be defined statically. This means to distance oneself from the mechanical model that, at any time, can always be indexed in terms of functional contents from which to deduce performativity.

A metabolic entity constantly redefines its terms at stake. In other words, it is never executive because it always tends to overcome itself. This constitutive circularity interrupts the subject-world disjunction as phenomenology emphasizes; I am referring in particular to Merleau-Ponty (1962). When I talk about the unique emergency of positionality, therefore, I do not consider the problem of predictability as a distinctive meta-predicate of subjectivity: behavioural phenomena with a high degree of predictability can appear as, on the other hand, there are abiotic events whose course is absolutely unpredictable. I would like to point out the absolute arbitrariness of the explanatory coordinates of cause-effect. If the mind emerges from the entire body, it makes no sense to consider the mental state as the representation of something. In fact, it would be more plausible to somatically correlate the concept of intentionality: to be a body means to refer to something external – that is, to refer to something, to build one’s own contents co-factorially.

The body can thus be regarded as a field where multiple games between different teams take place - phylogenetic instances that are related to ontogeny, needs that are confronted with environmental opportunities, stimuli that have to deal with the subject’s here-and-now dispositions, memories that casually emerged during the dream phase changing the present prospective. Also, subjectivity is nothing but the set of results of this body-world conjugation. Subjectivity is an “expressive mode” – that is, a state declination. Therefore, it becomes unintelligible if one claims to extract it from the individual alchemically and in purity, by referring to the brain or some part of the CNS and failing to extend this ownership to the body. This is the most important reason why I do not think that an animal is a machine, however complex, unpredictable and interactive it may be: a machine performs functions on the environment, an animal achieves positional states *with* the environment. The

concept of *res extensa* is based on the principle of the entity's completeness in the performative explanation, but the animal is not an entity that can be explained regardless of its positional circularities. On the other hand, it is clear that the principle of causal/functional completeness applied to the *res extensa* is inevitably reflected on the *res cogitans*. This is what leads Descartes to seek the certainty of one's own existence by retreating into oneself and questioning external reality.

Subjectivity is therefore a condition of positionality that arises from the animal's conjugative character. An animal realizes its subjectivity through its conjugative links to the world, by declining itself through connective structures. Every animal expression can be traced back to verbs of conjugation and positionality: chasing a prey, rejoicing during a game, being frightened by a danger, protecting a certain resource. The animal is brought into the world through a verbal predicate that is realized in the conjugative act, as if the world was to complete the sentence and give meaning to the verbal declination. The animal cannot be explained through an internal recognition (*iuxta propria principia*) because it is implicitly conjugative. Animality is thus a state of foundational deficiency, an appeal to something outside or past, and this will always distance it from the self-founding condition of a machine, regardless of the approximation or simulation that one may try to place in one's modelling: the phantom of the machine will always disappear.

The animal is subjective and, because of its desires, it is the protagonist of its own life. It is not a passive entity but rather a continuous self-presentation, an irrepressible being that is looking for something. Subjectivity is first of all *desire*. A desire that precedes us and conceals itself within phylogenesis. That is why a philosophical ethology, which considers the whole process leading to the birth of this desire, is required. I call that desire a "desiring-being". This being characterizes what we are and manipulates all our owned resources, like a pilot with her aircraft. There is a close relationship between animality and research, between subjectivity and non-equilibrium. The animal is driven by languor and libido. It creates situations, transforms the world into a field of opportunities, because it desires and thus looks for opportunities. A leaf is moved by the wind; the animal, instead, has an internal driving force: it is subjective because it is the protagonist. The internal motives are

verbal structures: to collect, to chase, to look after, to join, to possess, to protect. The object is only a field of practicability. Desires are verbs, actions in power, “structures that connect” (Bateson 2002) in a certain way the animal to the world. The animal desires by expressing its motivations, by exploring and interacting with the world.

On the other hand, the motivational state is the direct and neuromodulated expression of the individual’s endocrine status. For example, it expresses the individual’s biorhythm and periodicity that, through internal rhythms, impose glandular secretions interacting with streams of light, food metabolites and immune feedbacks of the cytokine. Desires define behavioural motives that, compared to the individual’s psychological state, are far from being amodal: one’s thoughts are governed by verbal functions that, compared to the motivations, are perfectly modal. When one talks about self-assertion as an amodal function, one forgets that it is nothing more than a supervening level of basic motivational structures whose inductive and coordinative source are the gonads. Nevertheless animal-being means always being able to escape the phylogenetic and ontogenetic influences. The animal always bends his endowments into new expressions: it never slavishly performs his provision. Animal life means browsing around the world, but first of all it means translating external reality into a subjective perspective. An animal does not see *the* world but *his* idea of the world arising from a complex system of filtering and reconstruction of the conjugative connections between the present entities. A phenomenon, therefore, is never objective for an animal, but it is not totally arbitrary either: a phenomenon is a sort of interpretation and representation. The animal is therefore an actor in the relationship with the world-script, an actor who wishes to follow his inspiration and be applauded. The animal is therefore the creator of worlds that come out through a millefeuille of re-elaborated schemes, a fractal heritage that goes through the multi-layer of phylogenetic history, then through the individual ontogenetic path, only to fall into the occasionality of the hurricane of the here and now.

Therefore, I am not at all trying to reduce the behaviour of caring, for example, to the mere presence of oxytocin. I just want to emphasize how important it is to re-establish the connection between mental state and state of the body, avoiding the mind-body disjunction that only admits a correlation even in the domain diversity.

Descartes' artifice of the dualistic operator opens the way for an amodal conception of cognition that is the first step to permanently remove subjectivity from the animal condition. But, the expressive and relational performance of the mind always starts from a systemic-positional condition of the body: one only has to change some positional parameters and the psychic outcome assumes a totally different declination. On closer inspection, even the human language reflects the "propositional structure" already implicit in the positional act, rather than following formal rules. Chasing a hare is a behaviour or a thought, a statement or an implication: its internal structure is what really matters. This is defined by a motivational predicate (chasing) and a modal specification that comes from schemes of experience in relation to the environment (how, what, where, when). Chasing is a positional state because it defines the conjugative motive, creating an accurate declination of the connection between the subject and its here-and-now. Infinite factors cause the animal to browse around the world, but even if we knew them all it would not be possible to say in what form the world phenomenon will appear to him. Being a world creator means being positioned in the expressive will, having to create an expression in a singular way - it is pointless to specify the degree of this freedom. The animal is not a stone that rolls downstream nor is he the meteorological evolution. The animal decides not because he always consciously chooses his path, but because his course is never predetermined by his previous internal conditions. He decides because he is open to several expressive possibilities, all potentially in existence, but which then break the symmetry of the world giving rise to an unpredictable outcome. An animal cannot rely on repetition in dwelling in the world.

Positionality is given by two forms of conjugations: 1) proactive positionalities that indicate how the subject engages the external reality, incorporates it and orients itself therein; these positionalities can be defined as motives or "modal desires"; 2) reactive positionalities that indicate what kind of willingness the body has in the intersection with external reality; these can be defined as emotions or "modal willingness". Some authors such as Damasio (1994) have stressed the importance of these positionalities directly referring to the systemic body - and therefore defined as "somatic markers" - for cognitive activities usually defined as amodal. A significant

example is the solution to a problem. First of all, it must be said that the animal does not just solve problems, as if external reality was nothing more than a series of objective problems. The motivational conjugation is the driving force that creates the problem - that is, it defines the gap between state and desired positionality.

Desire is the most immediate expression of subjectivity. It goes beyond need and, in a sense, gives meaning to it: I live because I desire, I live by expressing the desires that overwhelm me and shape my presence. All of the animal's endowments do nothing but offer themselves as tools for expressing desires. Desire colours the world, it fills the eyes of a child's wonder, it supports the chaotic games of a puppy and gives its own meaning to the events of the world. If desire disappears, life withers into a vegetative atemporality; if desire decreases, life fades. Desire is a mental languor, a craving for the world that makes the individual restless, ready for action, creative and involved. Desire has always been at the basis of ethological research: each species has different desires, but every animal desires individually. It is a subject because it is oriented to seek a space where it can act: desire faces it with problems, makes it evaluate situations, urges it to find solutions, forces it to decide. The exercise of desire gives it more pleasure than the achieved outcome: the animal is a subject because it is part of the principle of expressive pleasure.

Secondly, it should be emphasized that, once a problem is revealed through the exercise of the desiring declination in conjugation with the outside world, this must be understood in its two inflections: i) all the structural features of the problem must be accepted and the individual must therefore be able to refer to the positional resources that are useful for grasping complexity; for this reason, some problems require emotional activations of opening and others require emotional activations of closure; ii) the subject itself must be understood within the problem, as if the problem were a more or less comfortable environment, depending on the individual's intrinsic conditions. The animal is subjective because it has emotions, that is, some inner states that lead it to evaluate situations in a certain way. It is subjective because it does not experience the world passively but interprets external reality depending on its status. Through the emotional state, the animal converts the experienced situation in a value-for-itself condition. In this sense, to feel emotions is a necessary

condition for a specific here-and-now: to be subjective means to build a singular and unique Dasein of both the individual and the momentary past.

Emotions are the result of the relationship between the condition of the body and what the external reality offers at a particular time. The body is a growing systemic reality: to transform this physiological processuality, which interacts with the world, in a state of mind means to exist as becoming. It is as if the animal coloured the world through its emotions: the world takes on different shades depending on the animal's feelings. For example, if it is tired and has negative feelings, it will not see what surrounds it the way it does when it is happy. Emotions such as sadness or fear will transform the world into something dark. Therefore, to be subjective means to have a partial reading of reality. The animal never reads what surrounds it objectively; its approach is subjective because partial and relating to its internal condition. Subjectivity is thus an interpretation of the world that anticipates the representation, a previous "evaluation" that transforms the individual in a pre-conceptual entity. The subject lives in the world but, more importantly, it lives according to its own values that colour the world in a certain way. The animal is partial; it always has preconceptions.

5. SUBJECTIVITY MEANS EXISTENTIAL PLURALITY

The ethological principle according to which the individual is immersed in the world in always-different ways can be traced back to Darwin's principle of adaptive evolution. However, this is neither an improvement nor an emancipation from a particular previous condition, as the evolution of the human being is often trivially taken to be. It is rather a specialization, that is, a special connection to an environment and lifestyle. Evolution is a dialogic path that takes place over time and in a context of plural relationships; it is the introjection of relationships that unfold between life and external reality and whose outcome gives rise to a virtual range of ontogenetic phenotypes: a morphopoiesis that is not only functional architecture but also a dimension of presence and expressiveness. To consider evolution as a dialogue means

to distance oneself from: 1) an autopoietic vision of the living being and the various revivals of Lamarck's idea that evolution has an overall or intrinsic purpose, that is, it pursues a project; 2) the idea that the individual is a completely passive entity in the evolutionary process when, on the contrary, the action and the creativity that she expresses in her life act on the selective pressures and lead to a modelling shift.

Darwin's revolution must therefore be regarded as a work in progress, a workshop of debates on animality that leaves naturalism so as to become the paradigmatic crux for philosophical reflections on ontology. If one reads Darwin's thought correctly, one quickly realizes some important shifts from the humanistic tradition: i) the organ precedes the function and the anthropomorphic principle of being designed for a particular performative declination cannot therefore be applied; ii) each organism is the result of a repeated modelling based on selective pressures, so that the living organism is an artefact and a work in progress; iii) the structural emergence is not based on an ideational coordinate, there is no designer, and it abides by bottom-up (rather than top-down) organizational logics; iv) there is no model or reference and the individual, therefore, can never approximate something; one cannot talk about gradients of completeness nor perfection, because evolution is a do-it-yourself process; v) the evolutionary process does not abide by deterministic coordinates and therefore cannot be compressed into an algorithm, because phylogenetics is historically based on occurrences and casualness.

These shifts are substantial and cannot be confined to naturalism. They rather enter the philosophical debate and the theme of animality leads to a comparison with the foundations of Western thought so that, in order to emphasize the discontinuity that Charles Darwin's thought gave life to, one has to talk more and more about a post-humanistic age, seriously questioning: i) universalism, that is, the presumption to identify a foundation of the projective and adaptive canon of humanism; ii) essentialism, that is, the idea that each entity needs to follow a previous authentic, unchangeable and referential schema; iii) dichotomous thought in its various forms – particularly those of nature/culture, mind/body, human/animal, natural/artificial, innate/learned - that is, the idea that juxtaposed or related dimensions have a different domain; iv) the disjunctive or non-relational conception of

entities, that is, the idea that an entity may be founded according to its own principles and present itself as an impenetrable and autopoietic entity that can be reached through internal recognition and reflective speculation; v) the anthropocentric view of the ontological constitution, that is, the idea that the human being is measure and subsumption of the world.

Plurality entered the ontological debate with von Uexkull's concept of *Umwelt* (1950), that is, the immersion of a specific species in the world. This interpretation was then taken up by Heidegger so as to limit animality to the heterospecific and, vice versa, so as to free the human being from a particular declination, following to the letter the dualistic tradition of the Epimethean genealogy of non-humans as opposed to the Promethean genealogy of humans. By eliminating or drastically reducing the Epimethean features of the human being – see the theory of human incompleteness that goes from Pico della Mirandola to Arnold Gehlen – one tries to find congruity between Darwin's thought and the humanistic paradigm. However, by doing so, the human being's basic premises are misdirected. The animal, confined to its immersion, does not interpret its Dasein but simply enjoys and responds directly to the stimuli of the world in an absolutely atemporal stunned condition. Once again, one tries to desperately save the human's speciality that guarantees universalism.

According to this monadic vision of the immersion, the heterospecific is an alien that cannot be investigated – as explained in Thomas Nagel's famous essay (1974) – that is, an entity with which no empathic relation can be built since there is no connective bridge. One is once again faced with an ad hoc interpretation that expunges animality from the human domain and reaffirms the automaton model. Actually, if one reads evolutionism correctly, one notices an extensive overlap between different *Umwelten*. This is attributable to: 1) homologies, that is, characteristics that are antecedent, shared because inherited from a common ancestor; 2) analogies, that is, characteristics that are convergent, shared because produced by the same selective pressures. Moreover the *Umwelt* is a plastic reality, i.e. it can be modified in its relationship with the environment and through all the media that intervene in the experiential process. The *Umwelt* is therefore an interface that follows a functional cycle of adaptation and not a bubble of separation from the world.

Diversity, therefore, should be not be used: i) to establish a total diversity between non-human and human that justifies an ontological difference; ii) to build an existential hierarchy, make the human an evaluation parameter for the non-human and the latter an approximation; iii) to declare a total alienation of the non-human and therefore the impossibility for any hypothesis on heterospecific existentialism that is not a mere behavioural description. The difference between a human being and a tick or a cat does not imply, as a logical consequence, the difference between the human being and the animal. This is a fallacy that runs through a large part of philosophical thought: not only in Descartes and Heidegger, but in many other philosophers that are often taken as champions of the criticism of anthropocentrism. When we say that there is a difference between a human being and a cat we refer to species peculiarities, that is, to predicative differences. When, on the contrary, we claim that they are differences of condition we refer to meta-predicative differences - the human vs. the animal as a category. A predicative difference does not and cannot imply ipso facto a meta-predicative difference. A dog looks more like a human than a clock. Mammals have equivalent encephalic structures to ours, so why do we persist in considering them automata? Of course, each species has its own characteristics, but inside the dog's skull there is a neocortex - not a set of springs and small wheels. There is a trivial anthropomorphism that projects predicates at random, but machinomorphism is even worse. A critical anthropomorphism is needed, based on homologies, analogies and universals as a starting point to reach the specifics of otherness.

Subjectivity thus enters the somatic-phylogenetic dimension as a body's specific modality. Human subjectivity, therefore, is not the result of emancipation from a generic animal condition, but rather the very expression of a specific animal condition. We are animals in every expression, even the most cool and rational: we are such in our ideals and in our sense of religiosity, in the meshes of our ambition and in the love that we receive. We can never forsake this dimension of existence, because every motive of our action, regardless of the refined modals we adopt, dances to the animal beat. Emancipating animality does not mean freeing the animal that is in you, but rather the animal that you are, because each of your expressions is nothing but a peculiar declination of the shared ledger of animal-being. Therefore, it does not

mean removing the chains from the baboon grandfather that hides in the depths of your being, or bringing out the brute that, in the guise of Mr. Hyde, will reclaim the lordship of the night. Freeing animality is about a mother's affection for her cub, the alchemy of falling in love, the amazement of a child in front of the world, the magic of the game, deep desire, the heartbeat of emotions. We need the emancipation of animality, both our own and that of other species. Animality must be freed from the chains through which Western philosophy has tried to contain it and to empty it of meaning. Animality has been transformed into an object to be sold or owned, rather than accepted as a dimension of life in its own right. The emancipation of animality is the greatest goal, capable of subsuming every other liberation and of breaking all kinds of discrimination. Animality is a question that concerns us, not only because the "anthropological machine" has been built in the human vs. animal dialectic, but mainly because our ontological condition is essentially an animal dimension. It is not necessary to dig deep, to look in the depths of one's own unconscious, but simply to let oneself go, like a balloon sucked into the sky.

To live means to get dirty in the world, to grow our identity sprouts according to the coordinates of light and shadow that the context offers us. To grow means to roll in this magnificent mud and forget any claim of purity. And the world has multiform games of light and shadow and each is a different path to growth. Each is a school of contamination, not a bath of purity. Our heritage is not an adapted seabed but a set of adaptation tools. The animal condition is perennial nomadism in space-time, where every position reached is always a springboard to the unknown. Subjectivity is the systemic emergence of a body in dialogue with the world, a being-with that subsumes the previous dialogic instances-consequences by constructing a new relational field that "exists" insofar as "it-is-done" - that is to say, the two states do not differ but rather collide. Existential plurality has several levels of contingency: a) the phylogenetic particularity that does not only specify absolute distances (human greater closeness to chimpanzees than flies) but also some shared features that vary from species to species; b) the ontogenetic state that is not only an individuality that can be defined depending on a cofactorial multiplicity (genetic, epigenetic, experiential) but is also the presence in a certain age; c) the singularity of

the here-and-now, that is, the state of the body and its relationship with the events of a particular time.

The humanistic paradigm tends to expunge diversity so as to realize its project of universalism, of formal and expressive plasticity. The non-human diversity is therefore deprived of subjectivity and turned into a mechanic specificity; it is transformed from existential diversity to functional diversity. For this reason, it seems very difficult to acknowledge a plurality in the *intus-legere* process, transforming it in a multiplicity of reactive mechanisms. Twentieth-century cognitive ethology has not answered by questioning ontological anthropocentrism - that is, the cognitive universal - but rather by presuming that the other species participate in the same *intus-legere*. In my opinion, this is the greatest paradox that has removed rather than introduced a debate on animal subjectivity. Just as a morphological, endocrine and sensory diversity exists, so does a cognitive plurality, since the phylogenetic process specializes but does not improve. The animal world is thus formed by a variety of intelligences specialized to process present information. Therefore, to ask oneself what is the most intelligent animal makes no more sense than to ask what is the most sensory or endocrine species. A dog, for example, has a strong social capacity. A cat, instead, can solve problems independently: to ask which species is more intelligent is absolutely useless and wrong.

The mistake we make in this approach is to consider intelligence as the ability to solve problems that we humans set on the basis of our own cognitive functions, with the result of crediting as the most intelligent animal the chimpanzee that, as it happens, is the one most similar to us from a taxonomic point of view. Intelligence, in reality, is the capacity to pose a problem, on the basis of a specific motivational immersion: first comes the desiring projection and only afterward can the problematicity gap emerge. To tell the truth, it matters little whether the subject solves it or not. Intelligence is the ability to go beyond appearance, that is, to go beyond the already given level of reality, to bring out opportunities that are not immediately visible or within reach. In this sense - which is also closer to the etymology of *intus legere* - intelligence is the ability to create a problem, not just to answer a question asked by a third party. An animal is one who poses problems to the world, who in

this way shuffles the cards of worldly occasions over and over again, bringing out something that was not there prior to its action. This shows us that every intellectual act is born from the subjective projection of the individual, that is, it is sustained through a process of involvement in the here and now that is an expression of the feeling and desire that characterize it. To solve a problem it is necessary to have previously posed that problem – to have felt the sensation of a gap.

As pointed out by Vinciane Despret (2016), often it is not that animals are incapable of facing a test, it is the way we present it to them that is wrong. Intelligence is therefore a species-specific faculty, just like all other functions, so we cannot say what is the most intelligent animal because it would be like wondering what is the most endocrine or gastroenteric species. Intelligence is an adaptive function for which each taxon has its own intelligence, which is also coherent with the whole ethographic canon of the species. The evaluation of the cognitivism of other animals of the last few decades always reveals this formal defect: i.e. the use of the human being as a measure unit to understand the intelligence of individuals who present marked differences from humans with respect to social behavior – which regulates relationships, and therefore also the relationship between questioner and tested subject – as well as with regard to motivational structure, *Umwelt* and cognitive characteristics. In other words, intelligence, which is already multiple within our own species⁴⁰ and therefore refractory to measurement between individuals, when extended to the animal kingdom as a whole becomes even manifold, that is, endowed with relevant differences, therefore difficult to assign to quantitative evaluations.

6. CONCLUSIONS

To acknowledge subjectivity in the animal condition – that is, to bring subjectivity back to its animal condition - means to open a debate on many of the philosophical premises that characterize Western culture. These premises tried to solve the problem of subjectivity through a series of artifices: the most notable one is the dualistic artifice of the incorporeal or amodal presence in time. Subjectivity cannot

be extracted from the body and cannot even be confined to a particular emergence of the evolutionary plurality, neither taxonomically (to what animal can subjectivity be related) nor phylogenetically (from what point of the human evolution onward one can speak of subjectivity). A living being is a subject because its ownership emerges from its systemic dialogic presence, from its reference to something external but already presumed (like a lock that requires a certain key) and in progress (like a performance that always modifies the script). Subjectivity indicates the individual's escape from the already-given: the excess of his being.

The animal creates its present time, a here-and-now in which it builds its *Dasein* (being-there). This present does not exist in itself and the animal invents it by relating past and future - that is, by giving resonance to the passed time and thus creating a temporal space for action and presence. The animal is a subject because it exists: it does not simply appear in the world; it is present, that is, it participates in the world. To own a present means to have ownership over the here-and-now and, in this sense, not to be immersed in it, but rather emerge from the fluxes of time. The animal expresses itself through codes of resonance of the here-and-now that change depending on the species. One could therefore say that there are as many presents as animal species. Each species relates different times because the phylogenetic history that preceded the individual emergence of a species-specific subjectivity is different as well. Subjectivity is this emergence from the flux of time.

One does not choose to be a dog, a dolphin, a man or a hen. One does not choose to bear the legacy defining the particular characteristics of one's subjectivity. One does not choose the ontogenetic path that defines this individual identity, of which one so wishes to be the undisputed and sole creator. One does not choose the here-and-now that flexes one's body unpredictably and ungovernably, like a slender boat trying to stay on course amidst stormy waves. Although one did not choose any of these states and legacies, one does not give up; no individual does it, whatever species one had the fortune to belong to. The idea of the animal as a machine is finally declining and it is now necessary to reconstruct an animal ontology that goes beyond the concept of *res extensa*.

WORK CITED

- Bateson, Gregory. *Mind and Nature: A Necessary Unity* (Advances in Systems Theory, Complexity & the Human Sciences). New Jersey: Hampton Press, 2002.
- Damasio, Antonio R., *Descartes'error: Emotion, Reason, and the Human Brain*. New York: Putnam, 1994. Print.
- Despret, Vincienne R. *What Would Animals Say If We Asked the Right Questions?* University of Minnesota Press, 2016.
- Gehlen, Arnold, *Der Mensch; seine Natur und seine Stellung in der Welt*. Bonn: Athenäum-Verlag, 1950. Print.
- Gould, Stephen Jay, *The Structure of Evolutionary Theory*. Cambridge, Mass.: Belknap Press of Harvard University Press, 2002. Print
- Gould, Stephen Jay and Elisabeth S. Vrba. "Exaptation-A Missing Term in the Science of Form" *Paleobiology* 8.1 (1982): 4-15. Print. <<https://www.jstor.org/stable/2400563>>
- Griffin, Donald R. *Animal Minds: beyond Cognition to Consciousness*. Chicago: University of Chicago Press, 2001. Print
- Heidegger, Martin, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*. Bloomington: Indiana University Press, 1995. Print.
- Lorenz, Konrad. *On Aggression*. New York, Harcourt, Brace & World, Inc., 1966. Print.
- Marchesini, Roberto. "Knowledge and Different Level of Reality". *Reading Philosophy, Special Issue on Realism and Anti-Realism: New Perspectives*. Eds. L. Caffo, S. de Sanctis, V. Santarcangelo: 2014. 53-64. Print.
- Merleau-Ponty, Maurice. *Phenomenology of Perception*. New York: Humanities Press, 1962. Print.
- Mayr, Ernst, *This is Biology: The Science of the Living World*. Cambridge: Belknap Press of Harvard University Press, 1997. Print.
- Nagel, Thomas. "What Is it Like to Be a Bat?" *The Philosophical Review* 83.4 (1974): 435-450. Print.

- Köhler, Wolfgang. *Gestalt Psychology, an Introduction to New Concepts in Modern Psychology*. New York: Liveright Pub. Corp., 1947. Print
- Piaget, Jean, *Science of Education and the Psychology of the Child*. New York: Orion Press, 1970. Print.
- Shalins, Marshall. *The Use and Abuse of Biology: An Anthropological Critique of Sociobiology*. Ann Arbor: University of Michigan Press, 1976. Print.
- Skinner, Burrhus F. *Science and Human Behavior*. New York: Macmillan, 1953. Print.
- Tinbergen, Nikolaas. *The Study of Instinct*. London and New York: Oxford University Press, 1951. Print.
- Varela, Francisco., Thompson, Evan., and Rosch, Eleanor. *The Embodied Mind*. London and Cambridge: MIT Press. 1991. Print.
- Wilson, Edward O. *Sociobiology: the New Synthesis*. Cambridge, Mass.: Belknap Press of Harvard University Press, 1975. Print.
- von Uexküll J. Jakob, "A Stroll Through the Worlds of Animals and Men. A Picture Book of Invisible Worlds". *Instinctive Behavior. The Development of a Modern Concept*. New York: International Universities Press, 1954. 5-80. Print.