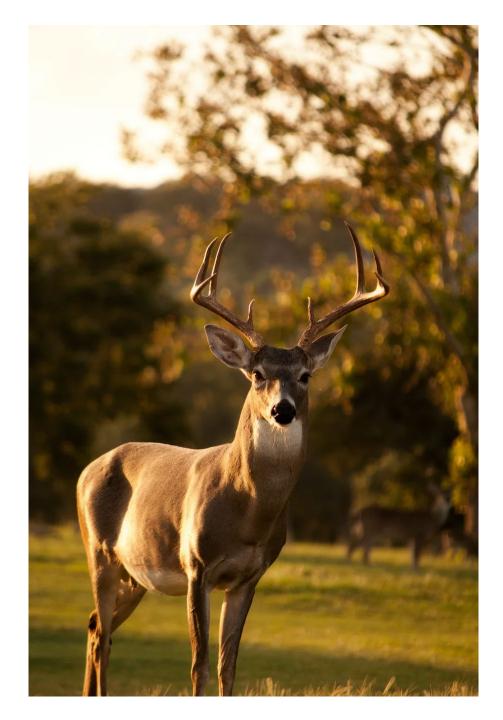
Animal Subjectivity and Animal Creativity

Roberto Marchesini

Problematize the Subjectivity

The problem of animal subjectivity is mainly a philosophical question which, however, requires a close comparison with descriptive disciplines, such as physiology and ethology. In fact, it is necessary to observe how an animal behaves in interaction with the world and to submit the evidence collected to an ontological reflection.



Animal Protagonism

Being subjective means having your own orientation towards the world, having your own purposes, being protagonists and not passive in the actions you produce. A subject does not let himself be carried by the current of events, but chooses, decides and is able to go against the current. Being a subject means using the laws of the world and not simply being moved by them.



Owner of the Present

To be a subject means to possess a present and not simply be inserted into a chain of events. The subject emerges from the flow of time and imposes a direction and rhythm on the phenomenological sequence. We recognize a subject precisely by virtue of its being present. We can say that subjectivity is highlighted in a condition of animal Dasein, because an animal is not positioned but takes place in space and time.



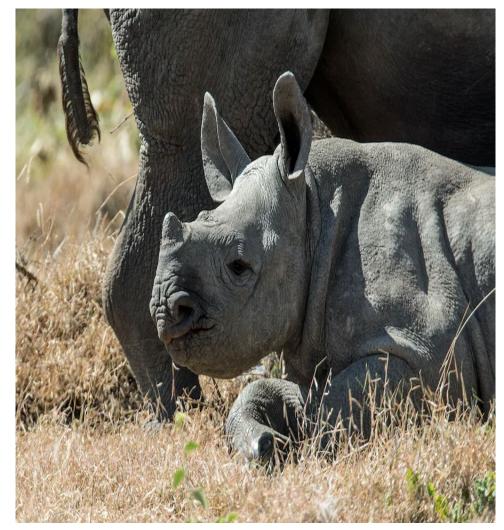
Self-Ownership

The subject's protagonism arises from a condition of inherent freedom that characterizes being an animal. This freedom produces a condition of self-ownership. This freedom does not arise from a lack of determining factors, but on the contrary from a redundancy of determining factors. The animal is a complex system and this offers it interspaces of freedom.



Animal Ontology

The animal is subjected to many variables that influence its psychological and behavioral condition. The subject is influenced by: 1) phylogenetic components that push it to perform certain actions; 2) physiological needs, often plural and concomitant; 3) knowledge it has learned during its life; 4) specific elements of evocation and actionability present in that situation. Freedom arises from this convergence of factors, from its being a system of causal plurality.



The Animal Condition

The animal condition presents different ontological levels, organized together in a hierarchical way, like matryoshka dolls. First of all, animality is an expression of the phenomenology of life and this basic level should also be investigated. The animal presents itself to us as an individual, with its own biography and personality. But this individual condition is nothing more than a declination of the species, which presents specific adaptive predicates. On the other hand, each species is a declination of the animal condition in general, which has its own metapredicates to differentiate it from what is not animal.



Predicates and Metapredicates

Subjectivity characterizes the animal condition, not a particular species, so I will call: 1) *predicates*, the adaptive characters; 2) *metapredicate* the animal condition in general. We can say that metapredicates characterize all animals, including human beings, while predicates indicate how that species has expressed its own animality in an adaptive sense.



The Anthropocentric Bias

Tradition has passed onto us a compromised idea of animality: its contents are hardly problematized. I believe this lack is due to a anthropocentric need to have a counterpart that can stand out, through opposition, against the human condition. Hence the lack of investigative interest in the topic of animality. The need to define a backdrop that can fully enhance human specialness has seriously jeopardized the possibility of developing an unbiased analysis.



A Shared Dimension

The reason is that the human does not perceive itself as an animal, other than in pure somatic terms; when speaking of animality, therefore, we refer to something else than a common and shared dimension. If the animal is viewed as a counterpart, it comes natural to define it in opposite terms, i.e., by looking for the predicative differences between the human and the non-human.



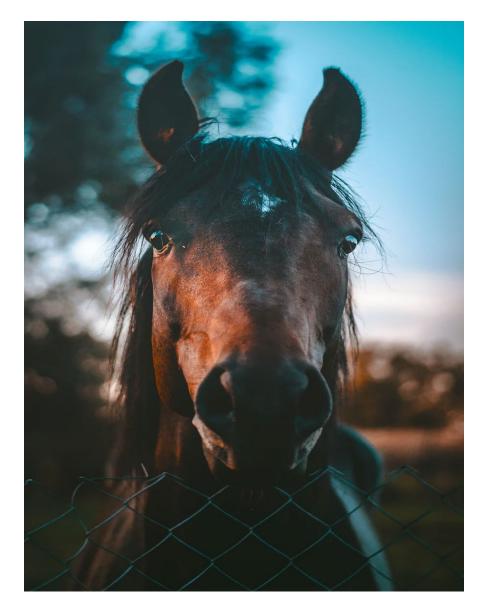
Subjectivity as Emergency

Subjectivity is an emergency that arises from a particular expression of the phenomenology of life. I believe that subjectivity is to be connected to three aspects that characterize the animal condition: 1) **heterotrophy**, i.e., having to obtain the energy to live by eating; 2) **peripatesis**, the tendency to move around the environment and look for opportunities and risks; 3) **sensitivity**, i.e., the ability to experience pleasure or pain.



The Five Levels of Subjectivity

Subjectivity is a fundamental condition for creativity. We can say that creativity is always a subjective way to reinvent an expressive style. To understand subjectivity I make use of five levels or essential properties that allow the animal to be the protagonist of its own existence. Being a protagonist does not mean violating physical-chemical laws, but bending them to your own interests. As Konrad Lorenz said, it means admitting that life is something more and cannot be reduced to abiotic phenomena.



The First Level

In animals, somatic movement requires sensory adaptation systems. In this sense, animals have developed nervous networks which are responsible for processing incoming information. In fact, it is necessary to distinguish the landscape modifications produced by an animal's motion from those that derive from changes due to external events.

This is why, when we look at different targets scattered over the horizon, we do not have the impression that the world is also moving.



1. Experiential Subjectivity

This ability to separate the effects experienced when interacting with the world (sensibility) from the effects produced by one's own action on the world (agentivity) can be considered the basic requirement of a Self that reacts and actively projects. The ability to differentiate a Self that receives from a non-Self that undergoes what happens to it can therefore be considered *Experiential* Subjectivity.



The Second Level

One of the most evident characteristics of the animal being is its orientation towards the outside world, in a dimension of interest and of defense of such interest, in a logic of Selfexpansion. These two expressions of interest also create specificities because each animal is interested in different things and is the bearer of its own interests. An animal is interested in the world because the realization of its interests is strewn with opportunities and risks that the subject must readily grasp in external reality.



2. Affective Subjectivity

The animal is open to the world precisely because it is a bearer of interests. This condition induces it to transform the external scenario: i) into events that define a maximum value of its interests, which can therefore be translated into a state of the body (emotional feeling) or; ii) into a projection space that establishes the degrees of accessibility for the expression of its behavioral tendencies and therefore the possible objectives (motivational desiring).



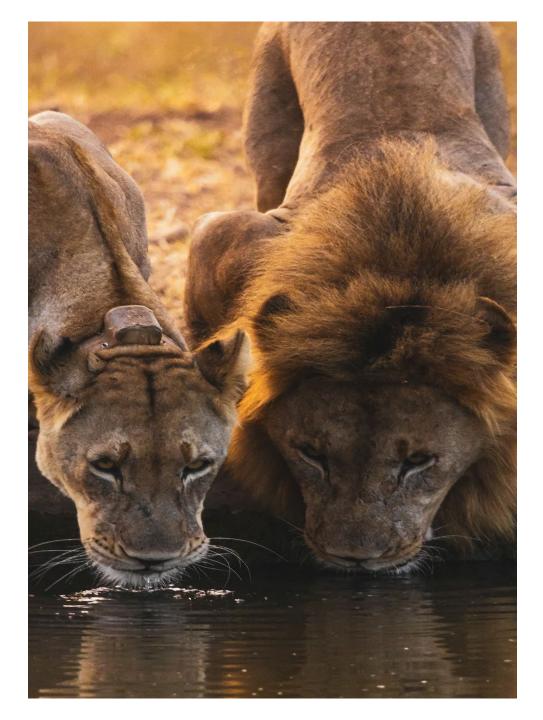
The Third Level

Life poses continuous problems to the animal and it's not possible to implement repetitive behaviors because every situation is different. But, when an animal performs trials to solve a problem, it cannot act at random, because the possibilities would be so many that it would inevitably be faced with a stalemate. In other words, the resource must be explained through a modelling other than automatism.



3. Cognitive Subjectivity

In this model, innate and learned endowments are seen as *tools* – not as automatism – at the subject's disposal or translation resources that the individual can use to realize its affective drives. The individual can apply them specifically because they are available resources, which it has full ownership of. A tool can be used because, unlike an automatism, it has more functions: the subject uses its endowments instead of being driven by them.



The Fourth Level

It is not enough to mechanically respond to a stimulus or to discharge an urge in some activity, because the world always presents challenges and an animal must be a problem solver. Versatility is a prerequisite for adaptation, whether you are a wasp or a beaver. Without protagonism in using endowments, phylogenetic skills would not make sense.



4. Mental Subjectivity

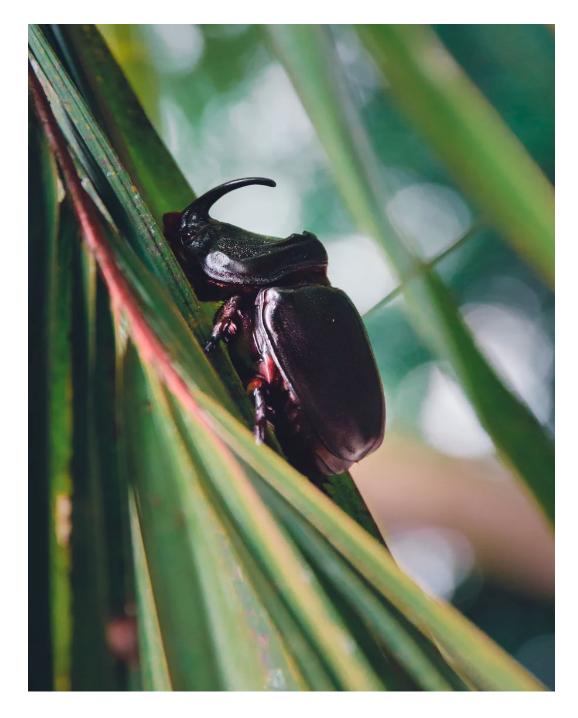
Now, among the dimensions of subjectivity, consider what we call mind: the unitary condition arising from the integration of various components. The qualities we recognize in a subject include homogeneity of expression, whereby the individual can be identified as a unity of purpose, and persistence over time, in the form of a solid and subsumptive whole capable of maintaining its identity through change.



The Fifth Level

The ultimate level of subjectivity is created by consciousness, i.e., by the ability to transform a state of mind into a condition present to the subject. We can imagine consciousness as the act of illuminating a propositional process of the mind.

Consciousness is therefore a functional state of mind concentrating all attentional resources on a particular projection of subjectivity. Consciousness does not produce subjectivity, but makes it explicit. Subjectivity produces consciousness, not the other way around.



5. Conscious Subjectivity

As an explicative function, consciousness is intentional, i.e., referred to something and therefore more or less complex.

We have:

- *i)* sentience as perceptive consciousness;
- *ii) reflexivity* as awareness of one's thoughts;
- *iii) self-consciousness* as self-awareness;
- *iv) the theory of mind* as consciousness of alterity's state of mind.

Consciousness allows the animal a greater ability to bring out the conditions of novelty and therefore to implement behaviors that are closer to the specifics of the situation.



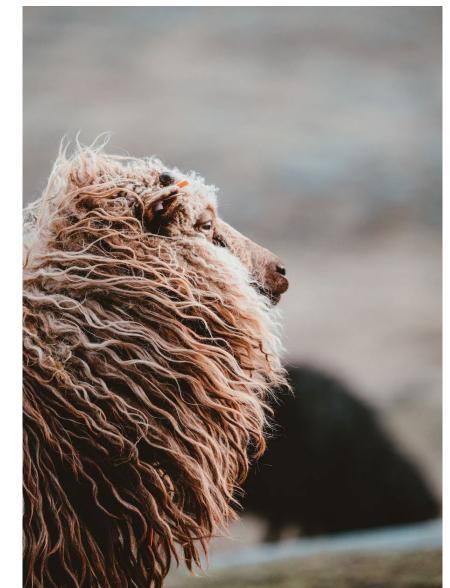
What Allows Creativity

Subjectivity is the condition that allows us to talk about individual protagonism as well as creativity. This quality requires: 1) full possession of one's cognitive endowments, thought of as tools for use and not as automatisms; 2) the presence of internal motives, in the form of interests that induce the subject to find new solutions and innovate his behavioral functions; 3) a unitary mind capable of putting together and hybridizing the different functions.



Going Beyond Skills

Creativity is the ability to go beyond the cognitive tools one possesses to express new behavior. A behavior is new when it is not limited to being a simple repetition of something previously acquired. An individual possesses a set of skills, of phylogenetic and ontogenetic origin. Creativity lies in the ability to go beyond skills, even using them, but in an innovative way. It doesn't matter how farreaching an invention is in our eyes, but how distant that behavior is compared to just repeating previous skills.



Subject Skills

Through behavior the animal responds to the challenges that the environment poses and at the same time expresses its own species canon. To be effective with respect to the tasks that are subjected to it, the animal has two endowments of competence at its disposal: i) that which derives from *phylogenesis*, i.e., from the history of the species through the processes of natural selection; ii) that which concerns the history of the individual, *ontogenesis*, through learning processes.



The Principle of Singularity

The skills possessed can provide an approximate answer, because every time the subject faces a situation it must necessarily manage a large margins of novelty. The *principle of singularity of reality* tells us that two situations can be similar, but not identical, so it is not enough to repeat to be faithful to the circumstance. Each piece of equipment must be readjusted and often reformulated through more or less large measures in order to comply with the actual conditions of the circumstance.



Competence and Creativity

To carry out its adaptive functions, an animal needs to combine competence and creativity, two qualities that are not in opposition to each other, because one needs and relies on the other. An animal uses its skills to produce creative events and uses creativity to adapt its skills to various circumstances. Creativity is, therefore, a basic function, which can also achieve excellence, but which is most often expressed as an ordinary performance.



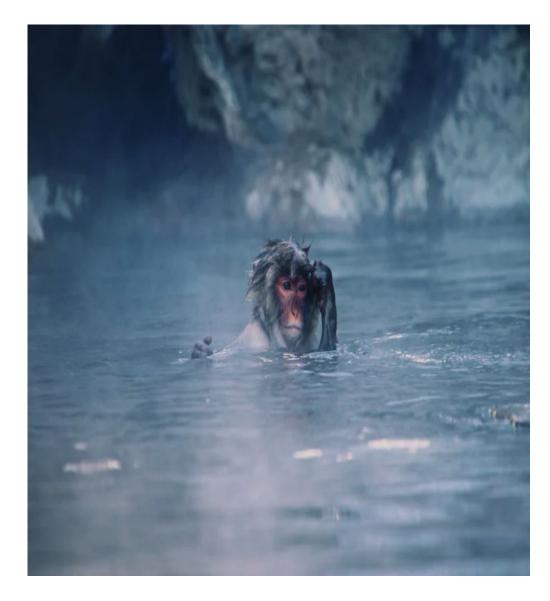
Creativity Is Not Necessarily Conscious

In order to be creative, an animal must be endowed with *subjectivity*, which is not necessarily conscious, but still capable of having control over its endowments, so it cannot be interpreted as an assemblage of automatisms. Subjectivity must be explained through a new model that makes the animal's condition of protagonism possible in the expression of its own behavior.



The Conditions of Creativity

Animal creativity occurs in different ways, each caused by different processes of interaction between the individual and the world. We can say that there are conditions: 1) where creativity is a basic function to adapt behavior; 2) where creativity is facilitated by the specific state of the subject; 3) where creativity is necessitated by the subject's difficulty in finding a solution; 4) where creativity is imposed by the urgency of the situation.



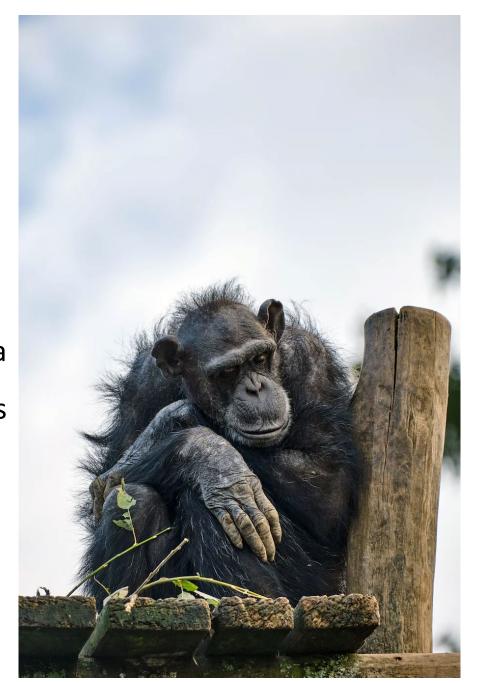
1. Creativity as a Basic Function

Creativity is a basic and necessary function for adapting skills to the particular situation that the animal must face. Each circumstance is a little different, and the animal cannot simply repeat if it wants to adhere to the situation. Each time it has to manage a small margin of novelty. The best way to do this is to use the technique of assimilation and accommodation, making small corrections to the competence.



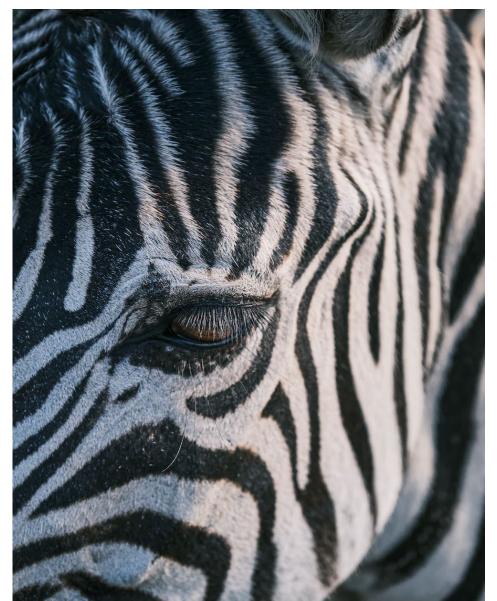
2. Play and Creativity

There are situations that facilitate creative behavior, such as exploration, communication and the use of tools. The condition that most facilitates creativity is play. First of all, playing does not present stringent conditions and therefore facilitates testing behavior. As a second aspect, during play the different behavioral areas enter into relationship with each other, giving rise to hybrid expressions. As a third aspect, playing involves and stimulates the imagination.



3. Creativity and Problem Solving

Creativity is often a necessary condition when the problem has no relevance to previous experiences or acquired skills. The problem solving situation asks the subject to invent a new path and cannot be found without creativity. It is often said that when faced with a problem an animal makes random attempts, but if this were the case it would never arrive at the solution. The subject makes attempts, but always oriented and equipped with a certain amount of creativity. In fact, it involves using solution recipes (heuristics) by inventing new ways of using skills. Often the mechanism used is that of cognitive recycling, i.e., the use of skills in other contexts.



4. Urgent Creativity

Sometimes it is the urgency of the situation that stimulates creativity, especially when it comes to bringing home an important result. We must never confuse creative behavior with competence. Many animal behaviors seem to present a great creative capacity, but these are innate behaviors. Urgent creativity often makes the subject appear not very gifted, but it is precisely in that moment that its creativity is revealed in its ability to cope.



What Could Be There

The animal is a subject because it constructs, or literally extracts, a *forma mundi*: its being present on the scene does not end with registering what is there, but with realizing what could be there. The individual is not limited to the already-given, whether apparent or to be discovered, but actualizes new states ex novo, while respecting the constraints of reality. The presence of the animal, therefore, can only be based on creative expression.



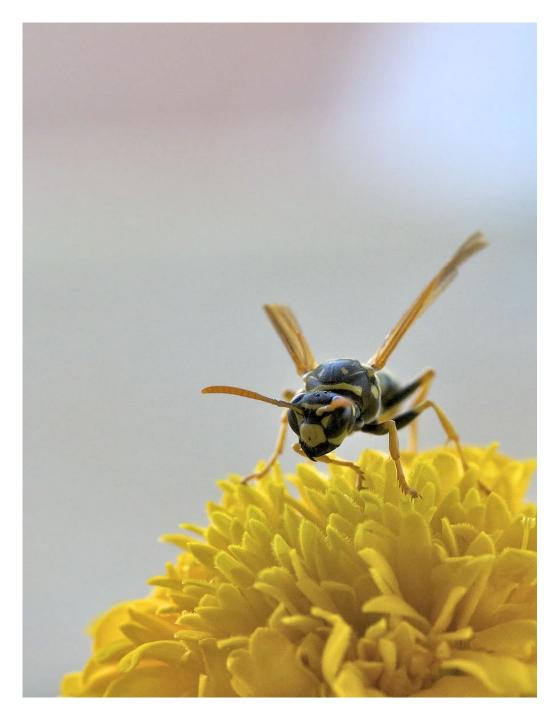
Meaning of Creativity

By creativity I mean: 1) a dialogue between subject and world, whereby, if creation is a novelty, it is also unexpected, because both subject and world develop something unprecedented, becoming co-factors in the process; 2) an extraction of a possible form (one that is conceivable even if not yet present), from the virtual condition of reality, through a new organization of things. The animal is always creative, because it is caught up in itself, in its feelings, emotions and desiring condition, which drive it to produce a surplus.



Spaces of Creativity

Innate and learned endowments define ways of intersecting with the world and, consequently, establish coordinates of creativity. If for a cat being in a meadow most often means wondering what is moving and how to chase it, for a human it means asking what stands out and how to collect it. These are *copula prevalences*, which however do not limit the subject's options to predetermined expressions, but open up spaces of creativity. Being movement or icon-oriented and proactive in chasing or collecting opens up the individual's protagonism, it doesn't limit it.



Virtual Character of Creativity

Therefore, I do not wish to claim that an animal has complete freedom in relation to its identity and to the world. am only saying that, within these endogenous and exogenous perimeter factors, protagonism is never absent. On the contrary, the animal uses the virtual spaces that are produced within its existential dimension - within the perimeter - to free its creativity. From my point of view, protagonism does not indicate the subject's absolute freedom, but rather its capacity for productive oversight over the situation. Consequently, creativity also moves through a complex fabric of influencing factors, makes use of them and does not contradict them to create new possibilities.



The Unpredictability of the Mind

I wish to underline the *unpredictability of the mind* in formulating proposals that sometimes go beyond the mere management of the situation. Of course, when faced with the need to eat or drink, an animal must primarily respond through highly referred behavior. But an animal's life is not a whirlwind of occupations and actually contemplates a lot of free time, which can be spent resting, playing, exploring and – why not? – lost in the imagination. The mind is creative by definition, because it is capable of envisioning something that is not present in the situation, by mixing together the mnestic threads that come from different experiences.



Creativity as a Conversion of Reality

The space of expression is like a marble slab, from which one can extract a statue that is possible but not yet actualized. When I say that creativity is a deeper and wider embrace with reality, I mean that it is the capacity to bring out from reality also the forms that still lie in the *limbo of virtuality*. Creativity is not producing something from nothing, but bringing out a new possibility that is present in a virtual way, but not in a manifest way. Creativity is therefore a new conversion of reality produced by the subject.



Hidden Possibilities

Creating an instrument from a piece of wood essentially means unveiling a potential use in that object, organizing its characteristics on the basis of hidden performative properties and functional needs. The presence of the subject is expressed in the ability to lift this veil, arranging a new organization of reality and bringing together different aspects located in equally different domains, such as: i) the physical laws that regulate performative mechanics, ii) the functional potentialities of the object, iii) the relationship with the animal's practical knowledge, iv) the techniques for constructing the instrument, v) the implicit characteristics or possibilities of the object itself.



Intus legere

In other words, presence is not total immersion in the apparent condition, but the capacity to reveal hidden properties, possible outcomes, new correlations, that is, the virtual richness of a situation – including possible setbacks and deviations from previous experiences. Precisely for this reason, presence establishes a much stronger conjugation with reality because it means looking inside, not stopping at appearances, revealing new opportunities: in a word intuslegere. Unveiling unexplored possibilities means, in fact, building an even closer relationship with the world, inaugurating new figurations enables by the expressive space.



Creativity and Niche Modifications

Creativity is an important factor in the evolution of living things. Through creativity an animal can modify its performance, for example by building a tool or discovering a new use. This inevitably produces a modification of selective pressures, due to the change in niche. The animal is therefore not passive in the hands of natural selection, but through niche modifications produced by inventions and innovations changing selective pressures, it influences the trajectory of the species.



Creativity Is the Joy of Living

Creativity frees the potential of the subject, makes it fly towards new existential dimensions. Creativity is like wings for the mind, it is the oxygen of thoughts. It is the sense that each individual has to interpret its presence in the world like an actor who, despite having a script, when he goes on stage must necessarily interpret and play his part.



Creativity is the joy of living.

