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## Zoomimesis: How Birds Taught Us That We Can Fly

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### Abstract

*The relationship with other species has played a fundamental role in cultural evolution. Animal behavior has always been a source of inspiration for the human being: dance, music, costumes, rituals, art and technology were born through zoomimesis. The encounter with animal otherness is an epiphany and not simply an example: it is the unfolding of a different form of existence. To understand this, it is essential to question the traditional conception of animality. Animality is a metapredicative condition that also encompasses human beings, so that animal otherness is recognized as a partner in a contaminative dialogue. Humans are particularly interested in other species: many anthropological and psychological studies demonstrate this. This animal appeal has characterized the history of humanity since its origins, as shown by rock art. Posthumanist philosophy recognizes the hybridization between the human and the non-human, in a perspective of relational ontology. For this reason, zoomimesis represents a central topic in the posthumanist vision.*

**Keywords:** *Zoomimesis; Animal epiphany; Animality; Posthumanism; Cultural evolution*

### Premise

Our relationship with animals has always been interpreted as one of simple use. Other species have been seen as tools for humans to obtain various benefits, from food—as in Bronislaw Malinowski—to the more articulated ones of performative zootechnics. Even the concept of *good to think with* coined by Claude Lévi-Strauss (Lévi-Strauss, 1962), understood as a useful entity to package the creative processes of human beings, does not deviate from this paradigm. Today, it is essential to move from a reified vision of the non-human, which reduces it to an object without a subjectivity of its own, to a conception based on relationship, which sees it as a type of otherness capable of dialogic exchange with the human being. Nonhuman animals can suggest insights to us that we do not know: consequently, they can modify our perspective, our point of view.

The metamorphosis proposed by posthumanism is based on considering the heterospecific not as a tool but as a relationship; it considers nonhuman animals as partners capable of suggesting new ideas or in any case of inspiring-revealing new possible existential dimensions. The encounter with animal otherness is very often an epiphany (Sachs, 2021) for humans—an upheaval capable of initiating the ideational process through decentralization. The posthumanistic approach to the anthropological question departs from the traditional autarchic vision: culture is not interpreted as an emanation of human beings, as light emanates

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from the sun. Human ontology is the fruit of the cultural conjugation of its phylogenetic nature, and human culture arises from hybridization with non-human entities.

The humanist tradition, on the contrary, has regarded the human as an independent, disjointed and self-sufficient entity, one that limited itself to *using* the world, without getting confused or contaminated with it. The human dimension was therefore—supposedly—obtained through a conception *iuxta propria principia*. The presupposition of this interpretative key was that the human being is not an animal, but something ontologically different. This meant considering humans incomplete, lacking in adaptive specialization, unequipped for environmental challenges, devoid of their own rank. Culture thus became the crutch to support them, the necessary perimeter to contain their exuberance, the useful function to exempt them from performing a given task, the compensation for their unsatisfactory condition.

It is a beautiful story, and it is particularly useful to construct an anthropocentric and mythopoeic vision of humanity: despite being helpless, the human race fights and ultimately wins against stepmother-nature, thanks to its creative virtues. This is the Promethean myth underlying the whole humanistic tradition, which considers the human dimension detached from nature and destined for elevation with respect to the telluric. In reality, human beings are far from devoid of natural endowments. Our body reveals a high gradient of specializations—such as the lowering of the larynx, the conformation of the pelvis, the structure of the foot, the shape of the spine, the development of the prefrontal lobe—which indicate a strong refinement on the part of natural selection. Incompleteness is therefore not an objective fact—from a morphological, physiological and ethological point of view—but an *a-posteriori* perception, the result of our dependence on external tools.

This “sense of lack” was not the *cause* of cultural development but the *consequence* of this process. Technopoiesis is an expression of the human tendency to imitate everything that surrounds us and to create copulative relationships with external entities (Benyus, 1997). In other words, posthumanist philosophy interprets the human dimension as the result of a *hybrid* tendency of the human being, which is not regarded as non-disjunctive and self-sufficient as in the humanist approach. In this sense, the anthropocentric paradigm that characterized the modern age is called into question by posthumanism. This change in perspective is based on the following points: (1) the human animal is one of the many possible declinations of animality; (2) animality must be reconsidered in its ontological presuppositions; (3) humans are not an incomplete entity and the sense of lack is an *a-posteriori* perception; (4) culture is an anthropo-poietic dimension that arises through processes of hybridization with otherness; (5) the very phylogenetic characteristics of humans support the hybridization processes; (6) anthropo-poiesis is not an elevating and disjunctive event, it is not a verticalization but, on the contrary, it is a decentralized process that increases the dependencies of humans.

The hybridization flywheels that characterize human nature concern different aspects of the morphology and behavioral repertoire of our species. In particular, our body has a great ability to perform different movements, a predisposition to manipulate objects, and a neurobiological plasticity that makes it a virtuoso of ontogenesis. As far as the ethological repertoire is concerned, one should note the role of the motivations (Panksepp & Biven, 2012) that lead us to carry out hybridization activities. In particular, the following must be considered: (1) the mimetic motivation, i.e., the tendency to represent an external phenomenon within the body; (2) the parental motivation, which leads us to adopt the young of other species; and (3) the poietic motivation, which drives us to reformulate and interpret



what we observe through creative activities. The two most important areas of hybridization are the use of objects to build tools and the imitation of animal behavior to open up new existential dimensions. In this essay, in view of contributing the mimetic turn in posthuman studies, I will focus on zoomimesis, which has been—and still is—one of the most important processes for the construction of human culture.

### The concept of animality

To understand the role of other species in influencing the path of humanity, it is first of all necessary to reconsider the concept of animality. The word ‘animal’ is misleading. We use it as a generic counter-term to the human (Agamben, 2002), as if we were not animals ourselves. In reality, animality is a metapredicative dimension, which *includes* the human animal. The ‘human’ is a particular conjugation of animality, as it is for all species. However, it is evident that as long as we continue to consider other animals as *res extensa*, that is, as puppets driven by automatisms—innate instincts and learned conditioning—we will struggle to understand this metapredicative condition that belongs to us. Each species has its innate equipment and its own way of learning and experiencing, and within this perimeter each individual constructs its identity in a unique way and is the protagonist of its behavioral expression. This description does not only apply to us humans, but to all animals alike.

An animal is a subject, it is responsible for its existential trajectory and is endowed with self-ownership. Individuality, understood as the emergence of a Self at the helm of its orientation in the world, is a basic quality, present even in the simplest of animals. Humans recognize themselves in this common metapredicative belonging, beyond any identifying projections. There is no doubt that it is difficult to anthropomorphize a spider or an earthworm, yet we acknowledge a subjective condition in these entities (Griffin, 1992). In other words, we recognize certain qualities in animals, such as sensitivity and motivation, which define our common belonging. We do not always understand the way members of another species perceive, communicate, show interest, or build operational strategies, because these predicates are the result of adaptive specialization. These functions represent specific ways of realizing common needs that are not difficult to understand.

The heterospecific is in some ways similar to us and in others different from us. However, there is a co-belonging—animality—which shows us our common needs (such as eating, defending, and reproducing), even if expressed in a different way. Furthermore, evolution itself is based on the concept of a common ancestor, whereby the different *umwelten* (Uexküll & Kriszat, 1934) are not monads, but have large overlapping portions—homologies—that allow us to understand the experience of otherness. Many ethological characteristics of our species actually evolved in primates and are therefore common to this order, and not exclusive to the human being. Other features have appeared in the mammalian class and are therefore present in all the animals present in this taxon. Between humans and chimpanzees the similarities are relevant, and any ontological barrier is only created by our own arrogance.

Indeed, there is more closeness and similarity between humans and chimpanzees than between chimpanzees and gorillas. Here I will not deal with research methods and with the current acquisitions of ethology and neurophysiology, but one thing is certain: to say that we cannot know “what it is like to be a bat” (Nagel, 1974) is not only a serious scientific error, but also a big philosophical banality. We will never fully enter the psychological dimension of another, whether human or non-human, but it is evident that an identifying projection is less

at risk of errors if addressed to another human being. However, stating that you have no idea about what your dog might be feeling when it plays or what a cat might be experiencing when it purrs, is not an attitude of philosophical prudence. Our common belonging to the animal dimension, like a Rosetta stone, makes it possible to pass from one predicative context to another. This means that it is also possible to understand the differences between species as well: indeed, that's precisely the ethologist's work. So can there be a dialogue between human animals and a subject of another species? I think it's absurd to even question it, because we all experience it on a daily basis.

On the other hand, the concept of animality that has been handed down to us by the humanist tradition has very little to do with animals in a concrete sense. Just as human identity, on closer inspection, was a useful construction to support a very specific philosophical project, so animality was the necessary background to make human protagonist more explicit. As a counter-term to the human, the animal was therefore the brute, the expression of the irrational, the simple trigger of automatisms, the condition of being captivated in fruition, the repetition of instincts, the closure to the whole of natural pre-definition, the bestiality and the felinity capable of the cruelest actions (Marchesini, 2018). As can be seen, even the humanist tradition considers the animal as a metapredicative condition, not dwelling on specific species differences, if not occasionally and in terms of ontological comparison.

The basic error of this approach, however, lies in wanting to attribute all-encompassing predicative qualities—as if they belonged equally to the hummingbird and the lion—and to compare this construct to humans. If we have to speak of a metapredicative animal dimension, this necessarily *includes* the human and cannot foresee predicative connotations. It is a mistake to compare humans, i.e. a single species, with a metapredicative dimension, i.e. animality in the broad sense. In other words, from a predicative point of view, I can compare a human to a chimpanzee or a wolf, but certainly not to “the animal” in general. Yet, if what is pursued is a strong identity accentuation, as the Greeks did through opposition to the barbarians, perspective bias is inevitable. Following this distortion, we cancel all differences between individual “others”—they are all barbarians and not Persians, Punic, Etruscan, etc.—and at the same time we emphasize the distance between us, who have the *logos*, and them, who make a “bar-bar” sound.

Animality as a counter-term is therefore a construct of the humanist culture, on par with the presupposition of incompleteness and the Prometheanism of the human dimension. The humanist project was based on placing man at the center, detaching him and decontaminating him from any other proximity, making his profile well characterized and unique (Pico della Mirandola, 1496). This approach was a consequence of the need to move forward from medieval theocentrism. Undoubtedly, there were many reasons that prompted a paradigm shift in the history of Western culture, not just the rediscovery of authors of the classical age. The political and social situation, the development of urban culture, the emergence of new productive classes, have all favored the flourishing of this perspective. Leonardo da Vinci's Vitruvian Man can be considered the best figurative example of this project.

In order to realize his humanity, man had to move away from the animal side and take leave of those characteristics, becoming something else. This teaching can be considered the leitmotif of the whole modern age. The common thread of humanist thought lies precisely in this view of man as the only protagonist in the worldly proscenium. The result is not only the ontological and epistemological anthropocentrism that follows, but the development of an



increasingly solipsistic attitude that goes from the Cartesian *cogito* to Martin Heidegger's being-towards-death (Heidegger, 1962). The alchemical intent of extracting the human essence from the contaminated container of human life must necessarily burn any bridge of commonality and contact with the non-human.

This leads one to misunderstand not only the shared characteristics between our species and others, but also—and this is the focus of my essay—to deny that there is *any* hybrid reference in the development of human culture. Darwinian evolutionism certainly represented a turning point and a break with respect to the more or less coherent development of this paradigm, but countermeasures did not take long to appear, as shown by Arnold Gehlen's philosophical anthropology (Gehlen, 1966). It was enough to reiterate the biological incompleteness of the human being, resulting from the forgetfulness of the titan Epimetheus, to reduce the extent of our commonality with other species. This is where the phylogenetic heritage became ancestrality, feral drift, genetic disease, loss of social relations, as we can find in Cesare Lombroso (Guarnieri, 2000) or in various literary works at the turn of the nineteenth and twentieth centuries.

### The posthuman turn

The posthumanist vision arose as a particular sensitivity towards the hybridization between humans and external entities. If Charles Darwin can be considered the forefather of a paradigmatic revolution that sewed up the disjunction between the human being and other species, only in the last decades of the twentieth century did anthropo-poietic horizontality become more explicit, thanks to the flourishing of cybernetics, bionics and biotechnology. The cyberpunk works of the 1980s, by authors such as William Gibson (1984) and Bruce Sterling (1986), can be considered in many ways the forerunners of this elevation of the cyborg to the protagonist of contemporaneity, which found its philosophical consecration in the book *A Cyborg Manifesto* by Donna Haraway (1985). The image of the human body as a theater of reception of non-human otherness is today being increasingly transmitted as the very dimension of anthropo-poiesis, breaking the solipsistic scheme of the humanist vision.

The *Post Human* exhibition curated by Jeffrey Deitch in the fall of 1992 therefore was paradigmatic in conveying a new conception of corporeality, one that was light years away from the traditional one of the Vitruvian Man. There were still temptations to enhance the human body through technological grafts—as in all changes, the new coexisted with tradition. Yet the effect on the viewer was unsettling, because to varying degrees the artists broke the bodily integrity and authenticity which was the founding principle of humanistic anthropoplastics. The human body was no longer the measure of the world but found new meanings through conjugation with others. Some authors, like Matthew Barney (Dusi & Saba, 2012) and Paul McCarty (Marchesini & Andersen, 2003), seemed to probe new existential opportunities and herald a new era for the human being.

The centrality of the body in this new artistic sensitivity must not deceive: what we see in posthumanism is no longer the finished, architecturally stable body, but a matrix of fluid flesh that is deposited on new substrates. It is a dynamic, mutant and plural body, capable of activating anastomosis with all that is external, invading and being invaded by otherness. Reference is generally made to a near and future posthuman condition (Ferrando, 2019), and this paves the way to two different conceptions of the posthuman: (1) *transhumanism*, which sees the posthuman as a horizon to be realized through the reworking of the body or even

the abandonment of the organic dimension; (2) *posthumanism*, which, conversely, assumes a more markedly philosophical-interpretative profile, considering the posthuman as the achievement of full awareness of the human hybrid condition.

This second reading is the one I followed in the essay *Post Human* (Marchesini, 2002). I also took it up in the book *Over the Human, Post-humanism and the Concept of Animal Epiphany* (Marchesini, 2017), where I underline that basically "we have always been posthuman". My point of view is based on a reinterpretation of the human dimension, founded no longer on autarchy but on relationship, which is in line with the mimetic turn in posthuman studies as well. Posthumanism thus becomes a revision of the humanist paradigm, not a project for the enhancement of the human.

What is generally? lacking in Western culture is awareness of this hybrid dimension of the human, which is not attributable to twentieth-century technologies, but has accompanied us since our earliest cultural manifestations. Humanism is a sort of brainframe that prevents many from seeing how otherness has contributed to making us what we are. It is a framework based on the arrogant human claim of having no dependence or debt towards the non-human universe. Moving from a conception of the instrument as an amplifier of human predicates to one where the predicate is the fruit of this relationship means dismantling two anthropocentric claims: (1) philosophical anthropology, which believes that culture is the crutch of a deficient biological equipment; and (2) sociobiology, which believes that culture is instead the expression of nature as an extended phenotype. Technology always enters the body and modifies it, acting like a virus capable of remodeling cellular metabolism.

Posthumanist philosophy is therefore a reinterpretation of the relationship between body and technology that dismantles many of the traditional concepts of use of the instrument, for example the ergonomic and the juxtaposition vision. Technology is not limited to facilitating the achievement of ends inherent to the human being but introduces new ones. On the other hand, posthumanist philosophy does not focus its attention only on the technosphere but emphasizes the importance of the relationship with other species in cultural evolution. Furthering the mimetic turn in posthuman studies, we have to talk about zoomimesis—a topic that is too often ignored, perhaps due to a resurgence of anthropocentrism.

### **Animal epiphany**

If we observe a large part of the cultural productions of different traditions, we will immediately notice the influence of other species (Pouydebat, 2019). We find it in a large part of technology, in artistic manifestations, in the lexicon of the imagination, in symbolic and metaphorical expressions, in rituals and in various forms of liturgies: in short, in all the cultural expressions of the human being. Other species represent the archetype of every vocabulary, signifying strength, fear, vigor, fecundity—and it is no coincidence that the first graphic symbols made by humans consisted in stylized animal shapes. It would seem that if we removed animals from human culture, we would be left speechless and most likely devoid of concepts and ideas (Chapelle & Decoust, 2015). In the dances of the Australian natives, assuming the role of an animal is a means to tell a story in a mimetic form, and there is no doubt that rock paintings also have a narrative value (Caillois, 1960): animals therefore represent the characters that unfold on the stage of life.



The animal mask is therefore preconceptual and lends itself perfectly to acting as a communicative material in mimic-mimetic cultures: zoomimesis thus represents the archetype of every theatrical expression. Tribal dance is one of the most explicit examples of zoomimesis. As Rémy Chauvin reports in his book *Les sociétés animales*:

The Jivaros imitate the rooster of the rocks (*Rupicola*), the Tchouktches the gambetta (*Philomachus pugnax*), the Australians the emu, the Tarahumares the turkey. One of the figures of a Bavarian dance, the Schuhplattler, a figure known by the name of Nachsteigen, corresponds to the sexual parade of the mountain rooster (Chauvin, 1963, 201-203).

As Giorgio Celli reports in *Le farfalle di Giano* (1989), “In a film shot by the Belgians before leaving the Congo to its destiny, you can see an extraordinary sequence: the crowned crane performs its wedding parade and the young Watussi dance imitating its movements and evolutions” (Celli, 1989, 72). We also find an incredible number of these examples in Edward Armstrong’s book *La vie amoureuse des Oiseaux* (1952).

Among many populations of Indochina and Amazonia, engagement dances perfectly reflect some courtship rituals such as that of the white-bearded manakin (*Manacus manacus*). The tendency of many birds to circle around the female to court her is transposed to the letter by the mountaineers of the Caucasus. These and numerous other examples show us the link between dance and zoomimesis, to the point that Rémy Chauvin closes his chapter with these words: “as birds dance, so people dance” (Chauvin, 1963, 203). But we would be wrong to regard this process as one of mere imitation. For this reason, I speak of animal epiphany, that is to say a process of sudden revelation, whereby the animal phenomenon changes value and from an external event—which can be observed or contemplated, but which in any case remains extraneous to the subject—becomes human projection and introjection of a possible new existential space. An epiphany, therefore, is a hybridization process, because it allows the human being to live alien experiences through the animal’s body.

In hybridization, we make the predicates of otherness our own, and this is not a case of mere appropriation, but rather reliance on those qualities. This means that, following an epiphany, the relationship with otherness is strengthened by internal appeal, because the cultural translation of the zoompheme has brought the latter into the set of human predicates. We usually attribute zoomimesis to a simple translation of form from animal to technical expression—almost an instance of plagiarism of a natural patent—but in my opinion it is above all an existential metamorphosis, a dream made through the animal body, which only later appeals to the biomechanical content in order to find a coherent integration niche in the human being. Epiphany has more affinity with an altered state of consciousness, with the chaotic dimension of a dream, with the confused expressions of the unconscious, rather than with rationality. It is interesting in this regard what Nidesh Lawtoo suggests in *The Phantom of the Ego* (2013) with respect to the phenomenon of the mimetic unconscious. Lawtoo argues that it is present in the work of D. H. Lawrence and other modernists from Nietzsche to Bataille indicating that the mysterious stream of consciousness arises from a profound relationship between the Self and otherness (Lawtoo, 2013). The epiphanic emergence, acting as a real enlightenment, opens a crack in the human *limes*, allowing animal contamination.

The relationship between the human being and other species is not simply an encounter, which can be evaluated with the parameters of aesthetic or cognitive distancing, but rather an

engaging event, which concerns us directly and in relation to different aspects: from pure comparison and opposition to identification and common belonging, from revelation to inspiration. In other words, it is impact more than mere contemplation, as it exerts an infiltrative influence—that is, it produces change (Haraway, 2016). The encounter never simply remains within the perimeter of the show but determines a projection and a sort of possession. Any human being who watches the flight of a bird is inevitably dragged upwards, precisely because of the strong attractive character of the latter; soon they will imagine being catapulted into the bird's body, experiencing its existential dimension.

Therefore, it is not a question of a simple technical-performative acquisition—the art of flying—but of an ontological reference that is realized through birds: if what is sought is purity, deities will be given ornithological characteristics, just as any prophecy or annunciation (think of the angels or the holy spirit, but also Mercury), will be endowed with wings (Fournier, 2016). The epiphany has introjected the animal into the human being, that is, it has created an even stronger relationship between the two—we could also speak of addiction, just like with technology, since the intermediation of birds will always be necessary from now on to reach that cultural dimension.

To understand the co-factorial role of the heterospecific in ideational processes, it is necessary to overcome some prejudices typical of our culture. First of all, it is essential to see the animal other as a subject with characteristics given primarily by its belonging to a certain species and having specific predicates. We must not stop at the generic concept of the “animal”: there is no human-animal relationship, because the only other we encounter is always a member of a given species. Since ancient times, humans have always dialogued with other species, not through anthropomorphism but through zoomancy (Luck, 1985), that is, by observing and projecting themselves into the existential dimension of other species. The encounter with the heterospecific, which to all intents and purposes should be understood as a para-dialogic entity, does not produce a simple packaging of ideas. In other words, it is incorrect to think that the human being has first dreamed-conceived of flying and *then* looked at birds to understand how to do it. This way of thinking presupposes the ideational autarchy of the human being: in this view, the heterospecific is only the model to be imitated.

In reality, the encounter with the heterospecific is a flywheel of ideation. Birds taught us that we can fly, and only later were they able to play a masterful, metaphorical, and symbolic role in defining the flight coordinates. The very encounter with other species generates ideas; in it, the heterospecific acts as an epiphanic element, that is, as a detector of possible “existential dimensions” and not only as an exemplifying element of modal-performative paths useful for that performance. Inaugurating a new existential dimension means creating a hybridization, that is to say ontological dependence on otherness. It is not simply a matter of technique, but a space of presence. A human being who dreams of flying has expanded their species dimension. From that moment, ascensionality, levitation, emancipation from gravitational weight, spiritual verticalization, lightness and purity became available to them as places of projection. Human beings have contracted a debt with birds, because to reach the latter's existential dimension they must ask them for intermediation and intercession. Zoomimesis therefore cannot be confined to simply learning a technique: rather, it is a hybridization, an ontological metamorphosis that makes the human being dependent on an otherness. If soaring in the sky has now become your prerogative, you can no longer separate yourself from birds.





The relationship with other species and the effects of epiphany and hybridization are so strong and pervasive in the history of humanity that they require reflection. Much of human culture—dance, music, cosmetics, fashion, rituals, technology, divination, to name just a few—reflect this encounter. It begins as a revelation, a kind of illumination (Sacks, 2021), which leads human beings to reflect themselves in otherness. It is what I call “animal epiphany”: being possessed by the heterospecific or projecting oneself into it. This *being invaded by otherness* has an ecstatic effect—very similar to hallucination—whereby human beings have the impression of being free from the constraints of their own body, in order to access new living spaces. At the same time, they experience a shamanic possession, as if the heterospecific inhabited them. This double effect produces an ontological conversion that paves the way to the assimilation of some characters of the heterospecific: zoomimesis is, in fact, a decentralization from the phylogenetic condition.

### In conclusion

The relationship between the human being and other species should be considered as a fundamental driving force in the development of the concept of *humanitas*, which was wrongly deemed to be the result of the difference between man and animal. In this sense, zoomimesis represents one of the fundamental drivers in the construction of the predicates we now consider an integral part of the anthropological dimension. The posthumanist reading allows us to look at this process no longer as a simple imitation, but as an embodied metamorphosis of the very identity of the human being. As with the relationship with *téchne*, zoomimesis is one of those hybridizing events that make us view the human being no longer as a self-referenced and disjointed, i.e., pure, entity, but as something that is realized through relationship and by constructing ever new copulations with the outside world.

### References

- Agamben, G. (2002). *L'aperto*. Bollati Boringhieri.
- Armstrong, E.A. (1952). *La vie amoureuse des oiseaux*. Edition Albin Michel.
- Benyus, J.M. (1997). *Biomimicry: Innovation inspired by nature*. William Morrow.
- Caillois, R. (1960). *Méduse et cie*. Editions Gallimard.
- Celli, G. (1989). *Le farfalle di Giano*. Feltrinelli.
- Chapelle, G., & Decoust, M. (2015). *Le vivant comme modèle*. Albin Michel.
- Chauvin, R. (1963). *Les sociétés animals*. Librairie Plon.
- Dusi, N., & Saba, C.G. (Eds.). (2012). *Matthew Barney. Polimorfismo multimodalità neobarocco*. Silvana Editoriale.
- Ferrando, F. (2019). *Philosophical posthumanism*. Bloomsbury Academic.
- Fournier, M. (2016). *Biomimétisme, quand la nature inspire la science*. Editions Plume de Carotte.
- Gehlen, A. (1966). *Der mensch: Seine natur und seine stellung in der welt*. Athenäum Verlag.
- Gibson, W. (1984). *Neuromancer*. Ace Books.
- Griffin, D. (1992). *Animal minds*. The University of Chicago Press.
- Guarnieri, L. (2000). *L'atlante criminale: Vita scriteriata di Cesare Lombroso*. Mondadori.
- Haraway, D. (1985). *Simians, cyborgs, and women: The reinvention of nature*. Routledge.
- Haraway, D.J. (2016). *Staying with the trouble, making kin in Chthulucene*. Duke University Press.
- Heidegger, M. (1962). *Being and time*. Blackwell Publishing.
- Lawtoo, N. (2013). *The phantom of the ego: Modernism and the mimetic unconscious*. Michigan State University Press.
- Lévi-Strauss, C. (1962). *Le totémisme aujourd'hui*. PUF.

- Luck, G. (1985). *Arcana mundi. Magic and the occulte in the greek and roman worlds: A collection of ancient texts.* The Johns Hopkins University Press.
- Marchesini, R. (2002). *Post-human: Verso nuovi modelli di esistenza.* Bollati Boringhieri.
- Marchesini, R. (2017). *Over the human: Post-humanism and the concept of animal epiphany.* Springer.
- Marchesini, R. (2018). *Beyond antropocentrism.* Mimesis International.
- Marchesini, R., & Andersen, K. (2003). *Animal appeal.* Alberto Perdisa Editore.
- Nagel, T. (1974). What is it like to be a bat?, *The Philosophical Review*, 83(4), 435-450.
- Panksepp, J., & Biven, L. (2012). *The archaeology of mind: The neuroevolutionary origin of human emotions.* W.W. Norton & Co.
- Pico della Mirandola, G. (1942 [1496]). *Oratio de hominis dignitate.* Vallecchi.
- Pouydebat, E. (2019). *Quand les animaux et les végétaux nous inspirent.* Odile Jacob.
- Sacks, B. (2021). *Avian illumination.* Reaktion Books.
- Sterling, B. (Ed.). (1986). *Mirrorshades: The cyberpunk anthology.* Arbor House.
- Uexküll, J., & Kriszat, G. (1934). *Streifzüge durch die umwelten von tieren und menschen ein bilderbuch unsichtbarer welten.* Springer-Verlag GmbH.

