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The 'Strange Kinship' of Interanimality. Vision, Visibility and Lifeworlds in Science and Art

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Résumé de l'article

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Dossier « Animaux et figurations animales »

The 'Strange Kinship' of Interanimality. Vision, Visibility and Lifeworlds in Science and Art

Anya DALY

Editorial Note

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Abstract

The sovereign gaze of the human subject has predominated in natural science and aesthetics across representations of animality and animal lifeworlds. Nonetheless, exceptions to such sovereign gazes, characterised by distanciation, hierarchies, dichotomies of gazer and gazed-at, are found in the work of von Uexküll and da Vinci, in the exceptional quality of attention they bring to their tasks; a transformative attention, revealing as Merleau-Ponty describes “a strange kinship” of interanimality.

Résumé

Le regard souverain du sujet humain a prédominé dans les représentations de l'animalité et des animaux dans les sciences naturelles et l'esthétique. Néanmoins, les oeuvres de Vinci ou les écrits d'Uexküll font exception parmi ces regards caractérisés par la distanciation, la hiérarchie, et les dichotomies entre le regardant et le regardé. À travers la qualité exceptionnelle de ces oeuvres se déploie une attention transformatrice, révélant comme l'a décrit Merleau-Ponty “une parenté étrange” d'interanimalité.

The sovereign gaze of the human subject has predominated in the domains of both the natural sciences and aesthetics across the diverse investigations and representations of animality and animal lifeworlds. Nonetheless, there are notable exceptions to such sovereign gazes, characterised as they are by distantiation, hierarchies and dichotomies of gazer and gazed-at. In the written descriptions of biologist Jakob von Uexküll and the artistic depictions of Leonardo da Vinci we see the exceptional in the quality of attention they bring to their respective tasks; a transformative attention characterised by mutuality of intertwined gazes, a seeing-with rather than a looking at, revealing as Maurice Merleau-Ponty describes — “a strange kinship” of interanimality (2003: 271; Daly, 2022). These finely attentive investigations and representations of animals re-cognise them as not mere specimens or curiosities for the human gaze but rather animal-subjects immersed in their lifeworlds (*Umwelten*). This paper examines how Merleau-Ponty’s interrogations of interspecies vision and visibility open up and reveal this lateral mutuality through his engagement with both von Uexküll and da Vinci.

Merleau-Ponty’s work on perception through aesthetics is central to his entire philosophical project and he stresses at regular points in his writings that art is often better equipped to disclose the truths of the world than is science. He describes painting as a “secret science” that draws upon the “fabric of brute meaning” of the world contrary to the reductive and totalizing tendencies of scientific thinking. This is not to dismiss science *tout court*, but rather to bring it down to earth, in contrast to the exclusive and privileged status it has held with regard to understanding the world. The painter achieves these disclosures by “lending his body... through the intertwining of vision and movement” (1993: 123-124)¹, and what is revealed through this aesthetic vision is the interworld, in which the assumed oppositions of interiority and exteriority, self and other, self and world, mind and body, the intelligible and the sensible, are challenged at their foundations. Against the dichotomous spectatorial accounts of seer and seen, vision and movement demonstrate their intrinsic relatedness. The movements of eye and body offer variable potential and actual vantages and while the seer establishes the locus around which the visible is arranged, this is not a sovereign gaze because the ever-present, multiperspectival gazes of others — past, present and future — are already implicated within the seer’s “map of the visible”. The philosophical landscape is thus entirely reconfigured through Merleau-Ponty’s interrogations of primordial percipience² and the primordial shared world — the “wild logos” and “wild being” of his later works³.

Merleau-Ponty draws on a number of artists as his interlocutors in these investigations, notably Cézanne, but also da Vinci and others. These artists affirm the three key axes of his philosophical project, the body, perception and intersubjectivity, and demonstrate how these axes not only constitute the subject but also play an essential formative role in knowing the world; subject and world are revealed as being co-constituted. In enactivist terms, “what counts as a relevant world is inseparable from the structure of the perceiver” (Varela, 1991: 13)⁴.



Leonardo da Vinci, *Lady with an Ermine* (ca 1490)

Portrait of Cecilia Gallerani

Oil on walnut | 54.8 x 40.3 cm

Czaartoryski Museum, Kraków, Poland

Wikimedia Commons (https://en.wikipedia.org/wiki/File:Lady_with_an_Ermine_-_Leonardo_da_Vinci_-_Google_Art_Project.jpg)

The sovereign gaze of the human subject has predominated in the domains of both the natural sciences and aesthetics, and arguably most conspicuously across the diverse investigations and representations of animality and animal lifeworlds. Merleau-Ponty differentiates his account from that of Husserl for whom progression beyond our animality into a more evolved rational human nature is stressed. So too in the evolutionary accounts of the Natural Sciences, the rational eye of the scientist affords a purported objective distantiation to observe the animal in nature or even more precisely to reduce the animal to mere specimen in the experimental lab. In contrast, in

his *Course Notes from the Collège de France* (2003), Merleau-Ponty argues for a constitutive animality that is never superseded:

[R]egarding the human, the concern is to take him at his point of emergence from Nature ... Human being is not animality (in the sense of mechanism) and reason. And this is why we are concerned with the body: before being reason, humanity is another corporeity. ... The concern is to grasp humanity first as another manner of being a body...

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And further: “We study the human through its body in order to see it emerge as different from the animal, not by the addition of reason, but rather, in the *ineinander* (intertwining) with the animal ...” (214; see also Merleau-Ponty, 1968: 274). There is thus no hierarchy of vertical transcendence beyond animality for Merleau-Ponty (2003: 268 and 271); and the human-animal encounter is one of intertwined gazes in lateral mutuality⁵. In aesthetics, Merleau-Ponty’s vision is captured most effectively by Cézanne whose artistic virtuosity Merleau-Ponty admired as a twin to his own philosophical vision. Such a vision contrasts most strikingly with representational art. For example, we could consider Gustave Courbet’s *Bonjour Monsieur Courbet* (1854) which is typical of the realism of the 19th century. Here we see the artist Courbet meeting his patron Alfred Bruyas and his servant. Everything is depicted with fidelity to the realist vision — the perspective, the shadows, there is a single, clear narrative conveying clear hierarchies of class and species; and importantly, we the viewer maintain our distance, the scene is out there including the dog and horses as features of the scene, and we are passive recipients of the representation.

Merleau-Ponty, however, seeks to re-educate our vision in a way attuned to the processes of those recognized as great observers of non-human animals, as great artists. Launching his series of radio talks in 1948, Merleau-Ponty alerts us to our tendency to underestimate our powers of perception in knowing the world. Caught up in our practical and utilitarian concerns, we take perception and the world that appears for granted; however, he assures us that through philosophy and art we can rediscover the extraordinary world in which we live as a previously “unknown territory” (2004: 39). He proposes we have erroneously abdicated our authority in directly knowing the world; we have deferred to the expertise of the scientists who would seem to free us from the “delusions of our senses” (2004: 40) to offer a more accurate account of the world, a world of “waves and particles” (2004: 41), through specialised technology and interpreted through the scientific paradigm of the day. Merleau-Ponty is not rejecting science *tout court*⁶, but rather challenging the tendency towards absolute objectivism that, despite Einstein’s relativity theory, Heisenberg’s uncertainty principle and quantum mechanics, persists in science and its cognate disciplines even today (2004: 39-45). And so Merleau-Ponty turns to art which he claims is better able to reveal the perceived world because it approaches the world with an innocent eye and is thus less likely to be burdened with the sedimentations of previous knowledge and the constraining expectations of paradigms, experimental design, and measurement (2004: 40). Cézanne is the artist exemplar who, breaking with the constraints of representationalism, revealed the structures of the perceived world most effectively for Merleau-Ponty, demonstrating that perception engages the world directly in a wholistic manner prior to the cognitive organisation of the percept into distinct figure-ground structures, distinct colours, forms, textures, light and shade. Through Cézanne’s painterly skill, dimensionalities, for example, are collapsed as with direct perception, and we discover that figure and ground are always given together, they are interdependent. Perception is, moreover, multiperspectival; and so all others, whether present others, past others or future others are implicated in any act of perception. Merleau-Ponty describes classical art which relies on geometrical perspective through directing the gaze towards a vanishing point on the horizon as creating art that is effectively “polite company” (2004: 53); the subject-matter of the painting

maintains a respectful distance; it neither involves nor challenges the viewer. Cézanne's art, in contrast, not only enlists the very visual capacities of the viewer but also implicitly presents all possible perspectives simultaneously; it is compelling and demanding. These two aesthetic insights — situatedness which respects the insight that things and their manner of appearing are not separate, and the multiperspectivity of perception which underwrites our constitutive intersubjectivity — inspire Merleau-Ponty's interrogation across all his philosophical projects resolving some of the most entrenched philosophical puzzles originating in Plato's divided line metaphysics and revealing the emergence of the "strange and paradoxical" lifeworlds given through vision (Merleau-Ponty, 2006: xv; 2012: lxxvii)⁷.

The overall task of this paper is to show that bringing an aesthetic sensibility to our attention directed towards the animal world is crucial to appreciating both the interiority of animals and the unique lifeworlds of different species; these are, more often than not, absent in scientific⁸ and artistic representations of animals⁹. Before embarking on analyses of von Uexküll's fine-grained observations of the animal worlds and da Vinci's artistic process in the presentation of animal-subjects, I will examine Merleau-Ponty's account of perceptual attention which lays the ground for a reconfiguration of our understandings of non-human animals and their life-worlds.

Perceptual Attention. Between Science and Art



Leonardo da Vinci, *Fight between a Dragon and a Lion* (n.d.)

Ink on paper

Uffizi Gallery, Florence, Italy

Merleau-Ponty's analyses of perceptual attention begin with a refutation of the traditional accounts of both empiricism and intellectualism which rely on the "searchlight" account of attention; that attention picks out an object within a context and illuminates this object, rendering it known (2006: 31; 2012: 29)¹⁰. Attention is disinterested and neutral to its objects, and so for empiricism there is a problem to explain how it is possible that one particular object may be chosen among a range of possibilities. Because of its reliance on external connections, empiricism is unable to explain the power of "perception to awaken attention, and then how attention develops and enriches this perception" (Merleau-Ponty, 2006: 31; 2012: 29); "empiricism does not see that we need to know what we are looking for, otherwise we would not go looking for it" (2006: 33; 2012: 30). Intellectualism, on the other hand, "does not see that we need to be ignorant of what we are looking for, or again we would not go looking for it" (2006: 33; 2012: 30). Contrary to both of these accounts, Merleau-Ponty proposes that attention is neither disinterested nor neutral to its objects. Rather attention is transformative, it is a "new way for consciousness to be present toward its object," and importantly the object is never an isolated sense-datum, it is always situated in a perceptual field according to the requirements of the exploratory perceptual organ — an auditory field, a visual field, a tactile field, etc. (2006: 34; 2012: 31) Object and field are inextricably tied and remain indeterminate and without meaning until attention is solicited; in this way attention both gives clarity and confers meaning. The transformational powers of attention transfer, moreover, to the intersubjective domain. Attention in this domain, I propose, has a threefold transformative power, giving "a new way of being present", thereby transforming the sense of self, the sense of the other subject (human or animal) and the sense of self of those others. The sense of self is transformed in the awareness of seeing oneself from the outside by another seeing subject, seeing oneself as belonging among others; we come to understand ourselves from another perspective, through the gaze of another with potentially differing values and goals, and can directly grasp our belongingness to a wider sphere of intersubjectivity. The other subject is also transformed and is now no longer just a piece of action in my visual field, but rather the locus of *meaningful* interdependent and purposeful behaviour within our shared world. The other subject's sense of self is also transformed under my gaze; they now see themselves seen through my eyes¹¹. Merleau-Ponty describes these reversibilities in perceptual attention as follows:

This [perceptual attention] is also an opening of my body to other bodies: just as I touch my hand touching, I perceive others as perceiving. The articulation of their body on the world is lived by me in the articulation of my body in the world where I see them. ... This is reciprocal: my body is also made up of their corporeality. My corporal schema is a normal means of knowing other bodies and these know my body ... in a universal laterality of the co-perception of the world.

2003: 218

In virtue of embodiment, things "have an internal equivalent in me; they arouse in me a carnal formula of their presence" (Merleau-Ponty, 1993: 126); and the artefact, the artwork and other animate living bodies amplify these equivalences and presences because they instantiate an implicit sociality¹².

Great art, because it demands a quality of attention more exigent than that directed towards inanimate things, is thus devalued if it is reduced to mere representations and images; rather great art offers us "the imaginary texture of the real" (1993: 126). The visibility celebrated is much more than the mere catalogue of the visual givens, the colours, lines, hues and form; all the other senses are implicated along with history, others, meaning and the entire world. And this is why there is always something more to discover; we must return time and again to stand before such art in fascination, in wonder, compelled to pose questions that are ultimately inadequate, or even ineffable, and are thus powerless to release us from hostage. Merleau-Ponty captures incisively the

differences between inanimate things and an artwork, juxtaposing the material means of the art and the art itself in the following description of the animals on the walls of Lascaux:

The animals painted on the walls of Lascaux are not there in the same way as are the fissures and limestone formations. Nor are they *elsewhere*. Pushed forward here, held back there, supported by the wall's mass they use so adroitly, they radiate about the wall without ever breaking their elusive moorings. I would be hard pressed to say *where* the painting is I am looking at. For I do not look at it as one looks at a thing, fixing it in its place. My gaze wanders within it as in the halos of Being. Rather than seeing it, I see according to, or with it.

1993: 126

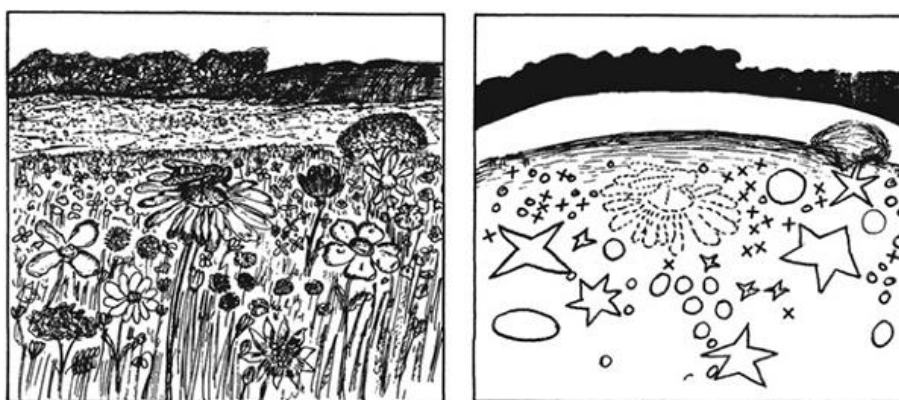
Animality and animal-human relations held deep philosophical interest for Merleau-Ponty; this is in evidence in the first monograph *The Structure of Behaviour* (1963)¹³, developed further in *Phenomenology of Perception* (2006, 2012) and other works, and extends to the very last working note of his unfinished book before his unexpected death in 1961, *The Visible and the Invisible* (1968), in which he announces his intention to develop further his interrogations of nature — “not Nature in itself, a philosophy of Nature, but a description of the man-animality intertwining” (274). Merleau-Ponty’s recognitions of the relevance of the work of von Uexküll to this “man-animality intertwining” appear at regular junctures throughout his own interrogations, notably in his indebtedness to von Uexküll for the orienting notion of *Umwelt*, variously translated as “lifeworld”, “milieu” or “environment”. What is important to note is that such a notion highlights the deficiencies of the scientific, spectatorial, objectivist gaze which depends on dissection, photographing and cataloguing of features and specimens; what is missing is exactly the *Umwelt*, the lifeworld¹⁴. Every creature is intrinsically tied to an *Umwelt*; the very forms, perceptual capacities and behaviour of the creature define the relevant *Umwelt* and the *Umwelt* in turn enforms the behaviours and capacities of that particular creature; there is inherent co-constitution¹⁵.

Jakob von Uexküll. Between Science and Art and Back Again

Although Jakob von Uexküll’s sketches have little of the artistic sensibility of Leonardo da Vinci’s paintings and sketches, he gains more than just honorary status as an artist because of his fine descriptions of animal life¹⁶. These depictions are respectful, even tender, attentive to the minutiae of appearance and purposeful action; they are the creation of worlds rendered visually and sensorily evocative. His portrayals go far beyond mere detailing of taxonomic features and behaviours, and much like the present-day ethologist Jane Goodall and the natural historian David Attenborough, his is a living alongside to become a living *with* other creatures. Von Uexküll’s famous introduction to his most well-known essay, “A stroll through the worlds of animals and men”, begins:

This little monograph does not claim to point the way to a new science. Perhaps it should be called a stroll into unfamiliar worlds; worlds strange to us but known to other creatures, manifold and varied as the animals themselves. The best time to set out on such an adventure is on a sunny day. The place, a flower-strewn meadow, humming with insects, fluttering with butterflies. Here we may glimpse the worlds of the lowly dwellers of the meadow. To do so, we must first blow, in fancy, a soap bubble around each creature to represent its own world, filled with the perceptions which it alone knows. When we ourselves then step into one of these bubbles, the familiar meadow is transformed. Many of its colorful features disappear, others no longer belong together but appear in new relationships. A new world comes into being. Through the bubble we see the world of the burrowing worm, of the butterfly, or of the field mouse; the world as it appears to the animals themselves, not as it appears to us. This we may call the phenomenal world or the self-world of the animal.

Uexküll, 1957: 5



Georg Kriszat, Fig. 21. *Environment and Umwelt of the honey bee* (1934)

Illustration from Jakob Von Uexküll, « A stroll through the worlds of animals and men (https://monoskop.org/images/1/1d/Uexkuell_Jakob_von_A_Stroll_Through_the_Worlds_of_Animals_and_Men_A_Picture_Book_of_Invisible_Worlds.pdf) » [1934], in Schiller, Claire H. (ed). *Instinctive Behaviour: The development of a modern concept*, New York: International Universities Press, 1957, p. 41

These “bubbles” described above are the specific *Umwelt*, the “self-world” of each of the different animals and it is the “openness of the *Umwelt*, and not the infinity of the world, [that] is the hidden source and ontological horizon of the embodied animal subject” (Buchanan, 2008: 115); the body is neither substance nor essence, but defines an unfolding relation with the *Umwelt* evident in the behaviour of the specific animal subject (Merleau-Ponty, 2003: 209). With two or more animal subjects we have the cross-over, the intersection, the interpenetration of *Umwelten* (173); and in the encounters between human animals and non-human animals there is in addition to the interpenetration of *Umwelten*, the recognition that all are but “variants of our corporeity... Animality and human being are given only together ... [in] the lateral union of animality and humanity” (271). Behaviour is revealed as not mechanistically caused, nor even merely reactive, but is rather characterised by a responsiveness to the affordances and solicitations of the environment. Von Uexküll’s stroll is primarily interactive; there is never just one specimen, and he describes the interactions as a melody of expressive relations. Different organisms and animals may be physically proximate, but the environment they respond to is unique to their own *Umwelt*; predator and prey, for example, have direct mutual survival relevance and so each is included

within the other's respective existential field of possible perceptions and actions; whereas creatures without this relevance are merely like animate furniture within the *Umwelt*. The creature is thus not merely receptive to the information in the environment, it transforms the environment into an *Umwelt* (Merleau-Ponty, 2003: 173) conferring meaning and opening up possibilities for movement (pursuit, avoidance) and achievement of goals (sustenance, shelter, reproduction). As Renaud Barbaras notes, the deceptively simple but underappreciated fact is that inanimate things are moved and animate beings move themselves (2018: 11), and it is this self-generated movement that signals an animal-subject in contrast, for example, to a stuffed toy bear.

The situation and the movement are not in a simple relation of causality and cannot be translated in terms of a 'pushed causality' from the before to the after ... Between the situation and the movement of the animal, there is a relation of meaning which is what the expression of *Umwelt* conveys. The *Umwelt* is the world implied by the movement of the animal, and that regulates the animal's movements by its structure.

Merleau-Ponty, 2003: 175

The *Umwelt* (which includes sensory, affective, cognitive, teleological and even cultural dimensions) thus delineates the world of meaning for the animal, but the limits of the *Umwelt* also define the constraints of the animal's capacities and movement.

Von Uexküll describes in fine detail the meaningful behaviour of the Patella (sea snail):

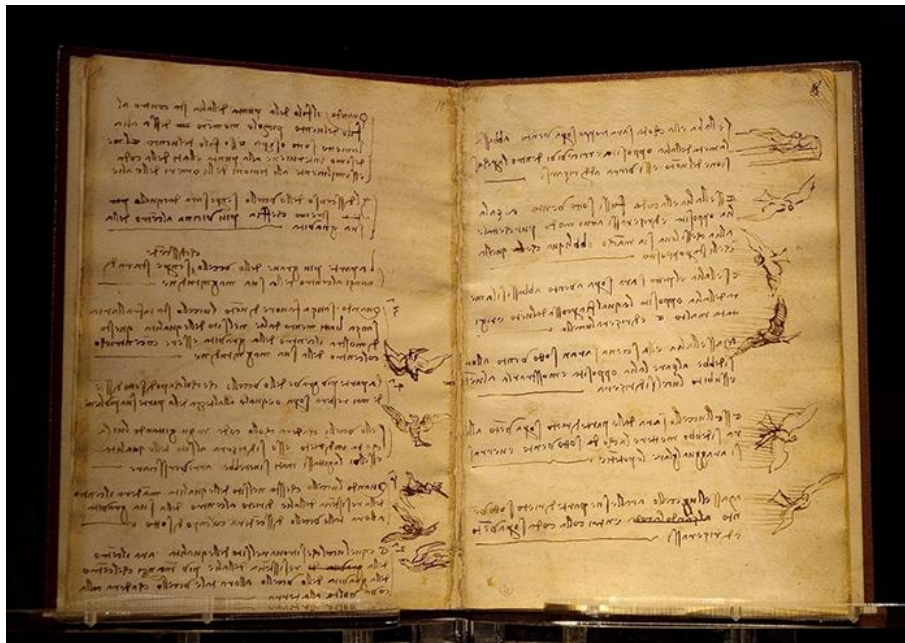
Even more striking is the 'homing' of the snail, Patella. The Patella lives on the rocky ground between the zones of ebb and flood tides. The big specimens use their hard shells to scoop a bed out of the rock. Here they spend the time of ebb, pressed onto the rock. At high tide they begin to wander and graze over the rocks around them. As soon as the tide recedes, they return to their beds. In so doing, they do not always use the same route. The eyes of Patella are so primitive that with their aid alone the snail could never find its way home. It is equally unlikely that it could be guided by a scent cue. The only alternative left is to assume the existence of a compass in the animal's operational space, although we do not know its nature.

von Uexküll, 1957: 17

This "compass" is elaborated on in Merleau-Ponty's treatment of human life as the "intentional arc": "[T]he life of consciousness — epistemic life, the life of desire, or perceptual life — is underpinned by an 'intentional arc' that projects around us our past, our future, our human milieu, our physical situation, our ideological situation, our moral situation, or rather, that ensures that we are situated within all these relationships." (2006: 157; 2012: 137) And it is the intentional arc that orients us towards the immediate situation and the wider domains of salience, thereby orchestrating meaningful behaviour that ensures survival and flourishing. While there is further empirical research needed in the domain of animal morality and cognition, there is already sufficient evidence to suggest that all these aspects of the intentional arc, including morality, apply as much to non-human animals. The tight correlation the animal has to its *Umwelt*, is another way of describing this intentionality¹⁷. And von Uexküll captures exactly this idea in describing the threads of a spider web: "As the spider spins its threads, every subject spins his relations to certain characters of the things around him and weaves them into a firm web which carries his existence." (1957: 14) Merleau-Ponty reflects on this interdependent correlation between life-form and world: "Life is not 'the ensemble of functions that resist death', to use Bichat's expression, but rather is a power *to invent the visible*" (2003: 190 [my emphasis]), it is "the opening of a field of action" (173). "Inventing the visible", weaving webs of relations and significance, is an

unequivocally cultural, aesthetic phenomenon and drives the life-projects of human animals and non-human animals alike.

Leonardo da Vinci. Between Art and Science and Back Again



Leonardo da Vinci, *Codice sul volo degli uccelli* (1505)

Ink on paper

Folios 7v-8r

Photograph by Luc Viatour

Royal Library of Turin, Italy

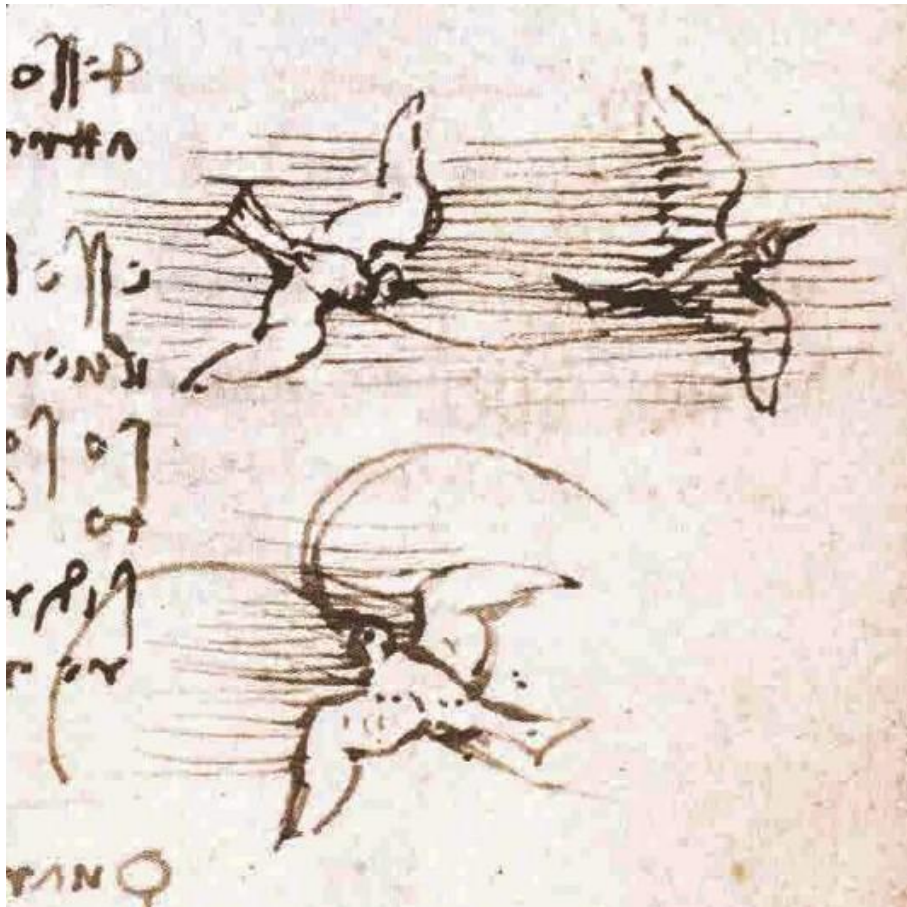
Wikimedia commons (https://commons.wikimedia.org/wiki/File:Da_Vinci_codex_du_vol_des_oiseaux_Luc_Viatour.jpg)



Leonardo da Vinci, *Codice sul volo degli uccelli* (detail) (1505)

Ink on paper

Royal Library of Turin, Italy



Leonardo da Vinci, *Codice sul volo degli uccelli* (detail) (1505)

Ink on paper

Royal Library of Turin, Italy

Wikimedia Commons (https://commons.wikimedia.org/wiki/File:Leonardo_da_Vinci_-_Codice_volo_uccelli_6r.jpg)

Leonardo da Vinci is legendary as the archetypal renaissance man, the range of his genius encompassing architecture, military engineering, civil engineering, science, music, and art. His extraordinary inventions, far ahead of his time, are viewable as models in the da Vinci gardens at Amboise (France) — a primitive war tank, a proto-type of a helicopter, a diving suit, a parachute and various ingenious weaponry and defence items. His art is equally extraordinary, although there are only around sixteen completed paintings attributed to him. Nonetheless, there are numerous (around 2 500) drawing plans for art works and inventions¹⁸. That it is impossible to assess whether da Vinci is more famous for his art or for his science is for good reason; his science is most often indebted to his ability to capture the natural world aesthetically¹⁹, and conversely, the precision and power of his art is most often indebted to his understanding of the natural sciences²⁰. Da Vinci's method depended principally on observation but also on active exploration and experimentation and these fed into both his science and his artistic representations of humans and animals. There are many statements from da Vinci himself revealing his gentle affection for the animals he closely observed, giving support to the speculation that he was himself vegetarian. What is without question is his challenge to the assumed superiority of humans over the animal

kingdom; humans are not “the kings of the animals, as thou hast described them, but I should rather say, kings of the beasts” (Da Vinci, 2014 [1802]); and there are a number of further statements in his treatise describing the voracity and mendacity of human animals²¹.

The cross-fertilization between the scientific and the artistic in da Vinci’s work is nowhere more evident than in his investigations into the mystery of flight, one of his enduring fascinations. This was pursued initially in the observations of birds, the careful artistic sketches capturing the intricacies of feathers and the functionalities of wings leading to the experiments with flying machines; and all these ultimately culminated in the first methodical account of the principles of flight. We know that flight was an especial passion for da Vinci; that he bought birds destined for the tables of the town to release them into freedom speaks to his tender regard for these lifeforms and also his keenness to observe the release of the birds into the air²². His attentiveness to the specificities of birds in flight informed his art and his inventions; he understood the birds not as a mere assemblage of bone, muscles and feathers, but on their own terms, in movement and purposiveness within their own elemental life-world of air, wind and sky (see his *Codex On The Flight of Birds*, 1505). The quality of this attentiveness enabled him to transpose not just the outer forms of creatures, but most remarkably the life-force manifested in their movements which animated their manner of being in the world. Merleau-Ponty proposes that beneath any objectivist account of movement there is the pre-objective experience which underwrites the very unity and sense of that movement, tying it to the person who perceives and revealing a “variation of the subject’s hold on its world” (2012: 280), in this instance, the unity and purposive movement of the bird’s flight. Merleau-Ponty reminds us of da Vinci’s comment in his *Treatise on Painting*: “The secret of the art of drawing is to discover in each object the particular way in which a certain flexuous line, which is, so to speak, its generating axis, is directed through its whole extent” (1993: 142). The line is not a mere property of the object:

[T]here are no lines visible in themselves, that neither the contour of the apple nor the border between field and meadow in *this* place or that, that they are always on the near or the far side of the point we look at. They are always between or behind what we fix our eyes upon; they are indicated, implicated, and even very imperiously demanded by the things, but they themselves are not things. They were thought to circumscribe the apple or the meadow, but the apple and the meadow “form themselves” and come into the visible as if they had come from a pre-spatial world behind the scenes.

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And so too we must learn to see da Vinci’s animals in the same way we see Matisse’s women, not in a “physical-optical” manner but as the “axes of a corporal system of activity and passivity, ... attitudes unstably suspended between a before and an after — in short, the externals of a change of place which the spectator would read from the imprint it leaves” (144)²³.

Motion and Emotion



Leonardo da Vinci, *Study with Cats and Dragon* (1513-1515)

Ink and black chalk on paper

Royal Library, Windsor, United Kingdom

In da Vinci's sketches of twenty-seven cats and a dragon we can see how he captures the "secret ciphers" of movement, the generating axis of each individual cat pursuing its own purposes; as da Vinci described, a "pictorial science", not of words and numbers, but a silent science accessible to "all the generations of the universe" (Merleau-Ponty, 1993: 146). Da Vinci sought here this inner animation radiating out from each cat, beneath the painterly aspects of space, depth, and form.

I see a playing cat and I regard it now as something of nature, just as is done in zoology. I see it as a physical organism but also as a sensing and animated Body, i.e., I see it precisely as a cat. ... [T]he cat is present there in the flesh — specifically, as a physical thing with sensing surfaces, sense organs, etc. The stratum of sensation is not there as something beside the physical thing; what is there is a Body, a Body which has physical and aesthesiological qualities as one. Likewise, the Body is also experienced as Body of a soul ... beyond the merely physical qualities it constantly has aesthesiological and psychic ones.

Husserl, 1989: 185

In the images sketched by da Vinci we can see a demonstration of the aesthesiological and psychic lives of the cats, as described by Husserl above; their inner being is displayed, defying both the objectivist-Cartesian approach to ethology²⁴ and the representationalist depiction of animals in art. It is only when the entrenched human exceptionalist perspective dominates that the inner lives of animals become invisible and the animals themselves become mere animate objects moving through space.

In the *Lady with an Ermine* (1488), a portrait of Cecilia Gallerani, da Vinci's tender attentiveness for human and animal alike is conspicuously on display in the shared inquisitive gazes, the fineness of anatomically informed detail in the hand and the felt texture of fur. The allusions and references between woman and ermine are not only in the play of words and references²⁵, but are also beautifully evoked in the demeanour, the gestures and the gazes; the curve of Cecilia's body mirrored by the ermine, her delicately rendered hand curved in a similar fashion to the ermine paw, and their gazes, inquiring and serenely focused on the same object beyond the frame, attesting to the shared world and the interanimality of human and creature.



Leonardo da Vinci, Sketch of a Roaring Lion (n.d.)

Red chalk on paper | 10 x 17.7 cm

Musée Bonnat, Bayonne, France

All the artworks above gain expressive power as much in the animation, the movements, as in the constraint of movement concentrated in the directedness of gaze depicted in the *Lady with an Ermine*. In the sketch *Roaring Lion*, da Vinci's genius displays how motion and emotion ("the movements of the mind") are intimately incarnated in the lion, rendering visible his inner world of suffering and rage. At the time of creating this sketch, due to the various menageries of exotic animals, lions were a real presence in the city of Florence. Since the 13th century, there is documentation that they were kept in cages behind the Palazzo della Signora (also known as the Loggia del Lanzi). While da Vinci's sketch evidences a fidelity to his understanding of anatomy — "this animal species, of which the lion is the prince, because of its spinal column which is flexible" (Da Vinci, 2014 [1802]), he is also attuned to the animal as the subject of a life; and with this image we immediately understand how and why the lion is roaring in suffering and rage — suffering due to captivity and rage at the humans who provoke and goad, who have reduced his animal life-world to mere entertainment and curiosity. And we might speculate that when not creating these realist depictions of animal worlds, animal play and animal suffering, da Vinci in a sense offers them freedom as mythical creatures to become truly worthy of awe in rendering them monstrous and fantastic.

Da Vinci and von Uexküll are attuned in similar ways to the abundance and richness of experience that is opened up when the quality of attention is such that non-human animals are encountered on their own terms, generating curiosity, tenderness, wonder, and an appreciation that they too are cultural creatures with inner lives²⁶: "We will only see this [abundance and richness] if we lend our attention to the spectacle of the animal world, if we are prepared to live alongside the world of animals instead of rashly denying it any kind of interiority" (Merleau-Ponty, 2004: 74).



This paper has proposed that to understand the interiority of animals and their unique life-worlds, we need to bring an aesthetic sensibility to our attention. This aesthetic attention as described by Merleau-Ponty is transformational and gives us a new way of being present to human and non-human animals alike. I have drawn on von Uexküll's fine-grained observations of animal worlds and da Vinci's artistic process in the presentation of animal-subjects to demonstrate how this approach can add a new dimension and a challenge to both natural science and art. Against the "searchlight" account of attention and the reductive tendencies within science and representationalist art, aesthetic attention approaches its "object" on its own terms and within its own *milieu*; with regard to animal-subjects they are grasped in their totality as affective, intelligent, cultural, purposive creatures immersed in meaningful action in a shared world, exactly as are humans. And when the *Umwelten* of humans and animals intersect, attention has a threefold transformative power — giving "a new way of being present", thereby transforming the sense of self, the sense of the other subject (human or animal) and the sense of self of those others. *Umwelt* is key and this is most often missing from scientific descriptions and artistic representations. To see the *Umwelt* of another creature requires an uncommon sensibility, an aesthetic eye to the values, purposes and the "ciphers of movement" of the animal subject. It is also important to appreciate that the *Umwelt* is not mere context; it delineates the world of meaning for the animal, but also the limits of the *Umwelt* define the constraints of the animal's capacities and movements. Jakob von Uexküll and Leonardo da Vinci stand out as exemplars at the intersection of art and science in their appreciations of the lifeworlds of animal-subjects in all their richness and complexity.

Notes

- [1] “Everything I see is on principle within my reach, at least within reach of my sight, and is marked upon the map of the ‘I can’. Each of the two maps is complete. The visible world and the world of my motor projects are both total parts of the same Being.” (Merleau-Ponty, 1993: 124)
- [2] “To say that I have a visual field is to say that by reason of my position I have access to and an opening up upon a system of beings, visible beings, that these are at the disposal of my gaze in virtue of a kind of primordial contract and through a gift of nature, with no effort made on my part; from which it follows that vision is pre-personal.” (Merleau-Ponty, 2006: 251; 2012: 224)
- [3] See also, “Merleau-Ponty’s Aesthetic Interworld. From Primordial Percipience to Wild Logos” (Daly, 2018).
- [4] “The world is inseparable from the subject, but from a subject which is nothing but a project of the world, and the subject is inseparable from the world, but from a world which the subject itself projects.” (Merleau-Ponty, 2006: 499-500; 2012: 454)
- [5] In the acclaimed 2021 French documentary, *La panthère des neiges*, by Marie Amiguet, Vincent Munier and Sylvain Tesson, this lateral mutuality of gazes and lifeworlds is superbly captured in the encounters with the diverse wildlife including the endangered Snow Leopard. “During his expeditions, proceeding by instinct, Vincent Munier exists in complete harmony with nature: ‘Your being absorbs everything: all your senses are mobilized; you seem to vibrate with the space and are inhabited by the life around you. Your emotions are literally heightened, and your animal side finally finds a means to express itself.’” (Harcourt 2021).
- [6] Renaud Barbaras writes that perception gives us “access to a pretheoretical domain” and science, as opposed to scientism, demands “the restoration of the originary perceptual soil” (2004: 148).
- [7] Throughout this article I am using both the earlier translation of 2006 and the later one of 2012. While the 2012 translation by Donald Landes has made some significant improvements in accuracy in translating parts of the original French text, the earlier version is for the most accurate and is still used by many scholars. There are also slight differences in style and arguably the Smith translation retains the voice of a 20th-Century philosopher. Including both allows readers who may have either or both translations to go back to the sources.
- [8] Referencing Kohler, Merleau-Ponty writes: “[T]he animal world will remain hidden to us for as long as we continue (as in many classical experiments) to set tasks that are not its own.” (2004: 75)
- [9] I owe a debt of gratitude to an anonymous reviewer who drew my attention to exceptional artworks, remarkable in testifying to the strong bond between human and animal, notably, Marianne Stokes, *A Parting* (1884). Also, the reviewer noted, I did not acknowledge the important lineage of anti-Cartesianism in French scholarship which laid the groundwork for subsequent challenges to human exceptionalism. The reviewer also recommended a chapter by Nicholas Milovanovic, “Versailles contre les animaux-machines” (2021).
- [10] “Attention is no longer a form that more or less lights up an immutable field but rather a restructuring power, one that makes the components of the landscape that did not exist reappear phenomenally. Thus, instead of a clarification of pre-existing details, a transformation of the object

occurs.” (Merleau-Ponty, 2010: 416) See also D'Angelo's critique of this “spotlight/searchlight” account of attention on the basis of Merleau-Ponty's work (2018).

[11] And this seeing can be experienced as the objectivist “inhuman gaze” made famous in Sartre's account of the voyeur peeping through the keyhole; or it can be experienced as a gaze characterised by mutuality, respect and care, a gaze that opens up the possibility of real communication. See the edited collection *Perception and the Inhuman Gaze* (Daly, 2020) for diverse essays addressing this theme.

[12] “To see is to enter a universe of beings which display themselves ... Thus, every object is the mirror of all others. When I look at the lamp on my table, I attribute to it not only the qualities visible from where I am, but also those which the chimney, the walls, the table can ‘see’; the back of my lamp is nothing other than the face which it ‘shows’ to the chimney. I can therefore see an object insofar as objects form a system or a world and insofar as each of them treats the others around it like spectators of its hidden aspects and a guarantee of their permanence.” (Merleau-Ponty, 2006: 79; 2012: 71)

[13] The opening sentence in *The Structure of Behaviour* attests to this ongoing focus in Merleau-Ponty's work: “Our goal is to understand the relations of consciousness and nature: organic, psychological or even social.” (1963: 3) Although there is but one direct reference to von Uexküll in *The Structure of Behaviour* (“Every organism is a melody which sings itself”, 159), the notion of *Umwelt* underpins much of what Merleau-Ponty elaborates on throughout this text and later ones.

[14] While this paper focuses on von Uexküll, the sociologist and ecologist Eileen Crist has conducted a parallel investigation drawing on the notion of *Verstehen* (Max Weber, Alfred Schutz) to understand behaviour and action from the actor's (agent's) point of view as opposed to the scientific objectivist view. She writes: “Applying the *Verstehen* approach to animals has striking epistemic and visual effects on their portrayal.” (1999: 51) The alignments between animal action and human action have been pejoratively designated “anthropomorphic”, insinuating that these are distortions elevating animal motivations and behaviour to that of human. The expression of such views can only be “tolerated as metaphorical and quaint or rejected as a category mistake” (53). Crist references the works of Charles Darwin, George and Elisabeth Peckham, and Jean Henri Fabre as exemplars in the fields of naturalism, entomology and ethology who represent animal life according to the principle of *Verstehen*, expressing the insights in the language of the lifeworld (83). So too, the French philosopher Dominique Lestel has taken up this question of human-animal relations beyond the objectivist-Cartesian approach, most often referencing the later French post-structuralists, who have drawn on the seminal work of Merleau-Ponty (sometimes with acknowledgement but sometimes without acknowledgement) to advance an account which foregrounds the animal lifeworld (2014).

[15] Dermot Moran offers an instructive discussion of the intersections of von Uexküll's notion of *Umwelt* and the later Husserlian notion of *Lebenswelt* (2013).

[16] See Undine Sellbach's 2021 article “Two painted flies: Improvised arts in perception in von Uexküll's Picture Book of Invisible Worlds” for detailed discussions of the use of the paintings and sketches as a way of gaining access to the animal lifeworlds.

[17] In more recent scholarship drawing on these ideas from Merleau-Ponty, Shaun Gallagher's *Enactivist Interventions. Rethinking the Mind* stresses the distinction between thetic intentionality

and operative intentionality (2017). Regarding operative intentionality, which is our most common ‘animal’ mode of action, he writes: “On the enactivist view, one doesn’t need to go to the realm of mental states (propositional attitudes, beliefs, desires), inside the head, to encounter intentionality — operative intentionality is intrinsic to movement; it is one’s action, in one’s environmentally attuned responses. This operative intentionality is the real non-derived, primary intentionality.” (79-80) Furthermore, as discussed by Feiten, Holland and Chemero, the notion of *Umwelt* serves as a mediating concept “to bridge the gap between ecological psychology’s realism about environmental information and enactivism’s emphasis on the organism’s active role in constructing the meaningful world it inhabits” constituting thereby “a significant step towards establishing a single ecological-enactive framework for cognitive science” (Feiten, 2020: 1). This current project endorses this view, and further proposes that *Umwelt* serves to mediate between the representations of non-human animals in science and art.

[18] In addition to the sketches and paintings, da Vinci kept notebooks, written in the last 25 years of his life, in which he described his philosophical views and his artistic methodology (Wallace 1972). These were collected by his student and heir, Francesco Melzi; they were first published in France in 1632.

[19] Da Vinci’s seminal understanding of the hydrological cycle is gleaned from his close observations of the movement of water, transposing these into sketches that would later inform his projects in designing drainage and water supply systems of towns and cities: “Whenever speaking about water, you have to keep in mind that you first have to invoke experience, before reasoning.” (Da Vinci, quoted in Pfister, 2009: 94)

[20] Da Vinci’s studies in comparative anatomy were key to his realist portrayals of humans and animals alike.

[21] “Man has much power of discourse, which for the most part is vain and false; animals have but little, but it is useful and true, and a small truth is better than a great lie.” (XIX, Philosophical Maxims, da Vinci, 2014 [1802])

[22] Da Vinci’s sympathy for non-human animals is well known not only through the artist and biographer, Giorgio Vasari, but also in his own statements — he writes: “If you are, as you have described yourself, the king of the animals, why do you help other animals only so that they may be able to give you their young in order to gratify your palate?” (Da Vinci, 2014 [1802])

[23] Da Vinci had envisioned another project, a *Treatise on Animal Movement*; in one of his notes he writes: “Write a separate treatise describing the movements of animals with four feet, among which is man, who likewise in his infancy crawls on all fours.” (Da Vinci, 2014 [1802]) And again, we see like von Uexküll and Merleau-Ponty, da Vinci regards humans as included in animality.

[24] “The realist-Cartesian paradigm has reduced the notion of environment to an extremely poor naturalistic ecology. Animals have become organisms deterministically adapted to a set of objective conditions. Their subjective construction of their milieu is effaced.” (Lestel, 2014: 126)

[25] Cecilia was the mistress of Ludovico Sforza, the Duke of Milan, who was also a member of the Order of the Ermine. Cecilia’s surname, Gallerani, resembles the Ancient Greek word for ermine — *galê*, or *galêê*; the ermine is moreover a known symbol of purity and restraint; and there are mythological references to ermines being the protectors of pregnant women; Cecilia was at the time pregnant with Sforza’s illegitimate son.

[26] As Bruno Latour observes: "Imagine what debates between 'physical' and 'cultural' anthropologists might look like once the notion of multi-naturalism is taken into account" (2009: 2).

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