



Article

Consciousness, Continuity and Responsibility: Toward a Stratified Relational Model of Human–Animal Difference

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Abstract

The intricate relationships between humans and animals have long shaped philosophical, cultural and scientific inquiry. This narrative review examines evolving conceptions of animal consciousness, agency and sentience within broader historical, ethical and epistemological contexts. Drawing on philosophy, ethology, neuroscience, psychology and animal studies, it critically engages debates on anthropocentrism, cognitive ethology, moral considerability and relational ontology. By tracing the shift from mechanistic models of animality to embodied and affective accounts of consciousness, the analysis highlights how contemporary scholarship destabilises traditional forms of human exceptionalism. Building on this interdisciplinary synthesis, the article advances a symbiotic humanist orientation that integrates evolutionary continuity with multidimensional models of consciousness and differentiated normative responsibility. The argument culminates in the articulation of a Stratified Relational Responsibility Model (SRRM), which reconciles ontological continuity with asymmetrical accountability. Within this framework, shared evolutionary conditions ground moral considerability, while the emergence of reflexive and institutional normativity intensifies human ethical obligation. The model offers a non-anthropocentric yet normatively robust account of human–animal relations, situating human distinctiveness not in metaphysical superiority but in heightened responsibility within multispecies ecological systems.

Keywords: consciousness; animality; human–animal interaction; agency; sentience; relational ethics; anthropocentrism; animal consciousness; human–animal difference; evolutionary continuity; normative asymmetry; relational ontology; moral considerability; multispecies ethics; symbiotic humanism; Stratified Relational Responsibility Model; agency; sentience; institutional responsibility



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“I wish either everyone in Paradise, or no one in hell. . .”

—Saint Paisios of Mount Athos [1]¹

1. Introduction

The ethical intuition expressed in the epigraph echoes a broader moral stance that refuses any conception of well-being detached from the suffering of others—a theme that will be explored in secular philosophical terms throughout this paper. The relationship between humans and animals occupies a central place in the humanities and biological

sciences alike. From early philosophical treatises to modern cognitive ethology, the question of what it means to be an animal—and whether non-human beings share consciousness, emotion or moral standing with humans—remains a subject of profound and ongoing debate. Historically, Western thought has largely been governed by an anthropocentric ontology, in which humans are conceived as qualitatively distinct from, and superior to, other species [2]. This separation was formalised through the Cartesian model of animals as automata devoid of mind or feeling, a view that underpinned centuries of scientific experimentation, religious interpretation and political domination over the non-human world [3,4]. Many ancient philosophical traditions articulated hierarchical cosmologies in which humans were distinguished by rational or political capacities, yet interpretations varied considerably across schools and authors [5,6]. These accounts should therefore be read as heterogeneous attempts to situate humans within a broader order of life rather than as a single, unified doctrine.

Over the last half-century, however, a substantial conceptual shift has emerged across philosophy of mind, ethology and animal studies. Scholars have increasingly challenged the rigid human–animal dichotomy, proposing instead a continuity paradigm that emphasises evolutionary, affective and cognitive overlaps among species [7–9]. Parallel to this shift, the ethical turn in the social sciences has expanded moral considerability to include non-human animals, foregrounding sentience and agency as central concepts in the reconfiguration of interspecies relations [10–12].

The rise of cognitive ethology—as championed by researchers such as [13,14] provided empirical legitimacy to the scientific study of animal consciousness. Griffin’s insistence that “animal minds” could and should be investigated within rigorous methodological frameworks represented a significant departure from behaviourist orthodoxy in twentieth-century psychology. Subsequent advances in neuroscience and comparative cognition have strengthened this trajectory, offering growing evidence that animals experience emotions, make decisions, and possess forms of awareness once assumed to be uniquely human [15,16].

At a broader level, the interdisciplinary field of human–animal studies (HAS) has reframed animals not merely as passive objects of human interpretation but as co-actors within multispecies assemblages [17,18]. The so-called posthumanist turn has played a central role in this reorientation, challenging strong forms of human exceptionalism and emphasising relationality, interdependence and co-constitution across species boundaries. Haraway’s concept of companion species, for example, dissolves rigid binaries such as nature/culture and human/animal by recognising their mutual formation within shared worlds of practice and meaning [17].

Despite these theoretical developments, anthropocentric assumptions continue to shape scientific practice, ethical reasoning and legal frameworks—from biomedical research protocols to industrial agriculture and conservation policy [19,20]. The recognition of animal consciousness therefore extends beyond philosophical speculation, raising profound questions about the structure of moral communities, institutional responsibilities and prevailing conceptions of selfhood.

Against this backdrop, the present paper undertakes a narrative review that synthesises contemporary perspectives on animal consciousness, agency and sentience, tracing both their philosophical evolution and empirical grounding. It adopts a cross-disciplinary lens that integrates insights from philosophy, psychology, neuroscience and cultural studies to explore how current understandings of animal minds reshape the ethical and political landscape of human–animal relations. The review focuses primarily on Western philosophical and scientific traditions. This delimitation does not imply that Western frameworks exhaust the conceptual possibilities for understanding animal life or moral considerability;

rather, it reflects the historical and institutional context in which much of the contemporary debate in philosophy of mind and animal ethics has developed. Non-Western traditions—including Buddhist, Daoist, Indigenous and other relational ontologies—have articulated sophisticated accounts of sentience, agency and moral community, frequently emphasising interdependence and continuity rather than hierarchical distinction. Although philosophically significant, a systematic comparative analysis of these traditions would require a distinct methodological framework and therefore lies beyond the central scope of the present review.

Nevertheless, a dedicated section later in the paper briefly examines non-Western and Indigenous relational ontologies. This inclusion is not intended to dilute the analytical focus of the review but rather to highlight conceptual alternatives that challenge hierarchical and trait-based models of moral considerability while enriching the interpretative horizon of contemporary debates.

References to non-Western relational ontologies are therefore employed primarily as conceptual contrasts that illuminate alternative ontological and ethical intuitions, rather than as components of a systematic comparative philosophical analysis.

The objectives of this review are threefold: (1) to map the historical trajectory of human conceptions of animality and consciousness; (2) to examine contemporary scientific and philosophical approaches to animal sentience and agency; and (3) to identify emerging ethical frameworks—including empathy, animism and corporeal compassion—that may guide more equitable and reciprocal relationships between humans and non-human animals.

Rather than deriving prescriptive conclusions from a single theoretical framework, the normative synthesis proposed in the final sections emerges from a process of reflective integration across empirical findings, philosophical analysis and ethical deliberation.

While the analysis remains primarily grounded in Western intellectual traditions, the historical narrative presented here should be understood as situated rather than exhaustive. Questions concerning animal life and moral considerability arise across cultures, yet the present work does not aim to provide a comprehensive cross-cultural comparison. Instead, it seeks to clarify the conceptual evolution and ethical implications of debates that have predominantly shaped contemporary Western discourse.

Finally, although the review expresses sympathy toward anti-anthropocentric perspectives, it deliberately incorporates philosophical positions that defend forms of human distinctiveness and ethical asymmetry. The intention is not to resolve these tensions definitively but to present the contemporary debate in a manner that is both analytically rigorous and constructively pluralistic.

In doing so, this work contributes to an expanding interdisciplinary dialogue that recognises animals not merely as objects of human inquiry but as beings with their own epistemic and affective worlds—beings whose recognition challenges and reshapes prevailing assumptions about what it means to be human.

This narrative review advances the thesis that contemporary debates on animal consciousness are best understood through a framework that combines evolutionary continuity with normative asymmetry. While empirical and philosophical evidence strongly supports the continuity of sentience and experiential life across species, this continuity does not entail ontological equivalence or symmetrical moral roles. Instead, certain naturalistically evolved human capacities—such as reflective normativity, symbolic articulation, and institutional coordination—introduce a categorial transformation in agency that grounds heightened ethical responsibility rather than moral privilege [21–23]. The paper argues that recognising this asymmetry allows for a non-anthropocentric yet normatively robust account of human–animal relations, in which difference intensifies obligation rather than legitimising domination.

This article makes three principal contributions. First, it provides an integrative philosophical synthesis of evolutionary, phenomenological, and normative approaches to animal consciousness and moral status. Second, it clarifies the conceptual compatibility between evolutionary continuity and normative asymmetry, arguing that greater human moral responsibility can be grounded in power and institutional agency rather than metaphysical superiority. Third, it advances a symbiotic humanist framework that situates animal ethics within a relational ontology of ecological interdependence, thereby offering a structured alternative to both strong anthropocentrism and undifferentiated moral egalitarianism. Building on this integrative analysis, the article ultimately proposes a stratified relational responsibility model of consciousness and human–animal difference. This model seeks to reconcile evolutionary continuity with structural differentiation in agency, arguing that human distinctiveness intensifies ethical responsibility rather than conferring moral privilege.

1.1. Methodological Approach: Narrative Review and Philosophical Synthesis

This article adopts the format of a narrative review rather than a systematic review. Narrative reviews are particularly appropriate when the objective is not the quantitative aggregation of empirical findings but the critical integration of conceptual, theoretical, and interdisciplinary literatures that span heterogeneous methodologies and epistemic traditions [24,25].

The present review synthesises contributions from philosophy of mind, cognitive ethology, neuroscience, phenomenology, and animal ethics, drawing on peer-reviewed theoretical works, landmark empirical studies, and influential conceptual frameworks. Sources were selected based on their sustained impact on debates concerning animal consciousness, sentience, agency, and moral considerability, rather than on exhaustive coverage or predefined temporal limits.

Consistent with established accounts of narrative review methodology, the aim is interpretative coherence and conceptual clarification rather than replicability or statistical generalisation [26]. The review therefore makes its normative commitments explicit and treats philosophical argumentation as a legitimate mode of synthesis alongside empirical evidence, while remaining attentive to internal tensions and unresolved debates within the literature.

This study adopts a conceptual and integrative review methodology. Rather than conducting a systematic empirical meta-analysis, the article synthesises philosophical arguments, evolutionary theory, and normative frameworks across disciplines in order to clarify conceptual tensions and identify areas of convergence. The objective is not exhaustiveness but theoretical integration and analytical coherence.

1.2. Methodological Clarification: Ontological and Normative Levels

Throughout this review, a distinction is maintained between ontological claims concerning the nature of consciousness and relational existence, and normative claims concerning ethical responsibility and institutional practice. Ontological continuity describes the shared conditions under which forms of awareness emerge across species, whereas ethical asymmetry arises from differential capacities for technological intervention, institutional coordination and anticipatory reasoning. Normative conclusions are therefore not inferred directly from ontological premises alone but emerge through an additional layer of ethical reflection grounded in vulnerability, power and ecological impact.

This distinction between ontological continuity and normative differentiation will later be developed into a stratified relational account of responsibility.

1.3. Cartography of the Argument: Structure of the Article

Given the breadth of the interdisciplinary discussion that follows, a brief overview of the article's structure may help orient the reader. The paper therefore proceeds as follows.

Section 2 traces the historical and philosophical roots of anthropocentrism and the emergence of paradigms of evolutionary continuity, from classical antiquity to Darwinian thought. Section 3 examines contemporary scientific and philosophical understandings of animal consciousness and sentience, integrating evidence from neurobiology, cognitive ethology, and phenomenological approaches. Section 4 turns to non-Western and Indigenous relational ontologies as conceptual alternatives that challenge hierarchical moral frameworks and expand the philosophical horizon of human–animal relations.

Section 5 analyses the concept of animal agency and its implications for human–animal interactions, drawing on ethological observations as well as political and technological perspectives. Section 6 surveys major ethical frameworks in animal ethics—from utilitarianism and deontology to care ethics, ecofeminism, posthumanism, and animist perspectives—offering a comparative synthesis of their normative implications.

Building on these foundations, Section 7 integrates the preceding discussions into a symbiotic humanist orientation and introduces the Stratified Relational Responsibility Model (SRRM), a conceptual framework that reconciles ontological continuity with normative asymmetry and differentiated responsibility. Section 8 then considers emerging technological, speculative, and contested frontiers in contemporary debates on consciousness and moral status.

Finally, Section 9 presents the conclusions and future directions of the study. It synthesises the preceding arguments, reconsiders consciousness through a relational ontological lens, outlines the ethical transformations implied by this perspective, and proposes avenues for further interdisciplinary research while reaffirming the framework of symbiotic humanism.

2. Historical and Philosophical Context: From Anthropocentrism to Continuity

Given the scope of this review, historical references are necessarily selective and schematic. The aim is not exegetical reconstruction but to trace conceptual trajectories relevant to contemporary debates on animal consciousness and moral status.

2.1. Classical and Early Modern Roots of Anthropocentrism

The philosophical roots of anthropocentrism can be traced back to classical antiquity, when thinkers such as Aristotle posited a hierarchical ordering of living beings—the *scala naturae*—placing rational humans at the pinnacle of creation [5]. In his *Historia Animalium*, Aristotle acknowledged behavioural and sensory sophistication in animals yet maintained that their lack of rational *logos* distinguished them from human beings. This notion of a teleological “great chain of being” would persist for nearly two millennia, framing animals as subordinate entities existing primarily for human use [27].

Although Aristotle's hierarchical *scala naturae* was influential in framing animals as subordinate to rational humans, this view was selective and contested within Greek philosophy ([28] *History of Animals*, 588b–589a). Earlier traditions, such as Pythagorean metempsychosis, posited kinship across species and advocated vegetarianism on grounds of ethical continuity [29]. Plutarch explicitly criticised Stoic indifference, arguing that animal behavioural complexity implied forms of *phronesis* and deserved moral consideration ([30] *De esu carniū*, 994E–995B). Empedocles, furthermore, envisioned a vital continuum uniting all living beings through shared elements and cycles of mixture/separation [31]. These counter-voices reveal Greek thought as a dialectical space: while the Aristotelian mainstream prioritised rational exceptionalism and teleological subordination, alternative

strands offered proto-continuist and empathetic perspectives. The selective dominance of the former perpetuated a hierarchical ontology that shaped Christian theology and early modern dualism, legitimising instrumental relations toward animals [12,27].

Classical accounts of animal life in antiquity already exhibit a degree of conceptual nuance that resists overly simplistic hierarchical interpretations. Aristotle, for instance, attributed to non-human animals capacities for perception (*aisthēsis*), desire (*orexis*), memory, and affective response, while reserving deliberative rationality (*logos*) for human beings ([32] *De Anima* II.2–3, 413b–414a; III.10, 433a). This framework does not portray animals as inert or purely mechanical entities, but as purposive beings whose behaviour is guided by perceptual and motivational states. Although Aristotle's teleological biology ultimately grounds a hierarchical ontology, his recognition of shared psychic faculties across species complicates later portrayals of ancient thought as uniformly dismissive of animal subjectivity.

Classical Greek philosophy offers a far more differentiated account of animal life than later narratives of Western anthropocentrism sometimes suggest. While Aristotle famously articulates a hierarchical model of the soul in *De Anima*, distinguishing nutritive, sensitive and rational faculties, he nonetheless attributes to non-human animals perception (*aisthēsis*), desire (*orexis*), imagination (*phantasia*) and goal-directed movement grounded in internal principles ([32] *De Anima*, II–III; [33] *Physics*, II.8). Animals are not inert mechanisms but self-moving beings whose behaviour expresses an organized teleology intrinsic to their form of life. Although Aristotle denies deliberative rationality (*logos*) to animals, he recognises graded cognitive capacities and complex behavioural coordination. Recent scholarship has emphasized that Aristotelian teleology should not be read as crude anthropocentrism, but as a framework of differentiated capacities within a shared ontology of ensouled life [34,35].

Moreover, alternative strands within Greek thought complicate any linear narrative of human exceptionalism. The Stoics, while prioritizing rational agency, developed an account of *oikeiōsis*—a process of self-affiliation extending outward—which later thinkers would reinterpret in more inclusive ethical directions [36]. The Pythagorean and certain Platonic traditions, by contrast, entertained doctrines of transmigration that blurred strict species boundaries. Even in Plato, whose tripartite psychology privileges rational governance, animals are not devoid of psychic structure but participate in graded forms of soul ([37] 41d–42e). The ancient landscape thus exhibits an enduring tension between hierarchical differentiation and ontological continuity—an ambivalence that foreshadows contemporary debates concerning graded consciousness and moral considerability.

With the rise of Christian theology, anthropocentrism acquired moral and metaphysical dimensions. The Biblical injunction in Genesis granting humans “dominion over every living thing that moveth upon the earth” (Gen. 1:28) reinforced a divinely sanctioned hierarchy, legitimising instrumental relationships toward non-human creatures [38].

Medieval philosophy likewise resists reduction to a uniform doctrine of domination over animals. While the Christian theological framework affirmed a hierarchical cosmology, it simultaneously preserved and refined Aristotelian accounts of animal cognition. Thomas Aquinas, drawing on Aristotle, maintains that non-human animals possess sensation, imagination, memory and a form of estimative power (*vis aestimativa*), enabling them to navigate their environment in purposive ways ([39] I, pp. 78–79). Although he denies intellectual abstraction and rational deliberation to animals, Aquinas does not construe them as automata; rather, they are ensouled beings endowed with structured perceptual and appetitive capacities.

Late medieval debates further complicated the picture. Discussions concerning intentionality, species *intelligibilis* and internal senses in thinkers such as John Duns Scotus and

William of Ockham reveal sustained engagement with the cognitive lives of animals [40,41]. The scholastic theory of internal senses—common sense (*sensus communis*), imagination, memory and estimation—provided a nuanced taxonomy for explaining animal behaviour without collapsing it into mere mechanism. Even where theological hierarchy remained intact, medieval philosophy preserved conceptual resources for acknowledging animal affectivity and perceptual world-disclosure. The transition to early modern mechanistic models, therefore, should not be read as a simple continuation of medieval thought but as a significant conceptual rupture.

In the early modern period, Descartes radicalised this hierarchy through his mechanistic dualism, conceiving animals as *res extensa*—purely material, devoid of consciousness or soul—contrasted with humans as *res cogitans*, beings endowed with rational, immaterial minds [4]. The Cartesian animal-machine theory exerted immense influence on the development of modern science, legitimising vivisection and experimentalism by severing cognition from corporeality [3,42].

Hobbes, though less extreme, extended mechanistic reductionism to human behaviour, viewing both human and animal actions as the outcome of physical motion and appetite [43]. However, Spinoza [44] and later Hume [45] sowed early seeds of continuity by attributing passions and imagination to animals. Still, mainstream Enlightenment thought largely maintained a rationalist separation between the human and the animal, a divide that persisted into the 19th century. This schematic contrast does not exhaust the diversity of ancient positions, which ranged from Aristotelian gradations of soul to Stoic accounts of animal perception and impulse.

2.2. Darwin and the Scientific Challenge to Human Exceptionalism

The 19th century ushered in a transformative moment with Darwin's *On the Origin of Species* [46] and *The Descent of Man* [47]. Darwin's theory of evolution by natural selection decisively undermined the notion of human beings as possessing an extranatural origin, situating all organisms within a continuum of descent. His observation that "the difference in mind between man and the higher animals... is one of degree and not of kind" [47] laid the groundwork for comparative psychology and, later, for cognitive ethology.

Darwin's naturalistic reframing of mental difference as one of degree challenged metaphysical exceptionalism inherited from classical antiquity, yet it did not by itself eliminate all ontological or normative distinctions. The rejection of an extranatural origin does not settle questions concerning the structural organisation of agency or the ethical roles associated with different forms of life. As several philosophers have noted, explaining how a capacity emerged does not determine what kind of capacity it is or what normative significance it carries. To infer ontological or ethical equivalence directly from evolutionary continuity would conflate genealogical explanation with normative classification, thereby committing a version of the genetic fallacy [8,48].

Earlier Greek emphasis on rational *logos* as uniquely human ([28] *History of Animals*, 588b–589a) had already been contested by more empathetic traditions, such as those associated with Pythagoras and Plutarch, but Darwin decisively shifted the debate toward empirical continuity. Comparative psychologists such as Romanes pursued this line, though often at the cost of anthropomorphic over-interpretation [49]. Morgan's *Canon* introduced methodological restraint [50], asserting that animal behaviour should not be interpreted in terms of higher psychological processes if it can be explained through simpler ones. While methodologically influential, this principle also contributed—indirectly—to the later behaviourist rejection of subjective states altogether [51].

This shift laid important empirical foundations for cognitive ethology while preserving conceptual space for nuanced accounts of difference (see Section 2.4 for a balanced

discussion of continuity and uniqueness). Yet the behaviourist paradigm—epitomised by Watson and Skinner—produced its own form of reductionism, denying subjective experience to both humans and animals [52]. In the mid-20th century, Griffin challenged this orthodoxy by founding cognitive ethology and advocating for the scientific study of animal minds [13,14]. Griffin argued that refusing to infer consciousness in animals was itself an expression of anthropocentric bias. His insistence that animals possess rich subjective lives marked a pivotal epistemological rupture, reclaiming inner experience as a legitimate object of scientific and philosophical inquiry.

Importantly, evolutionary continuity alone does not determine ontological or moral equivalence between species. The evolutionary origin of a trait does not preclude the emergence of functionally or normatively significant differences, nor does continuity automatically entail the absence of categorically relevant distinctions [53,54]. The significance of continuity lies primarily in challenging unsupported claims of absolute human discontinuity, thereby shifting the burden of justification to accounts that posit morally decisive uniqueness. Normative conclusions must therefore rest on independent philosophical arguments concerning sentience, vulnerability, and institutional power rather than on evolutionary genealogy alone [22,23].

Continuity of evolutionary origin does not in itself settle questions of ontological or normative equivalence; differences in emergent capacities may still ground asymmetries in moral relations.

2.3. Human Uniqueness and Asymmetry: A Necessary Clarification—Evolutionary Continuity and Categorical Difference

The rejection of anthropocentrism does not logically entail the denial of human distinctiveness. Evolutionary continuity establishes that human and non-human animals emerge from shared natural processes, but it does not, by itself, determine the structural organisation of agency or the normative roles associated with different forms of life. To infer ontological or ethical equivalence directly from common evolutionary origins would conflate explanatory genealogy with functional organisation, thereby committing a version of the genetic fallacy: the origin of a trait does not determine its structural or normative significance [48]. Evolutionary explanations clarify how capacities emerged, but they do not by themselves settle what kind of normative profile accompanies beings endowed with those capacities. The central claim defended here is that evolutionary continuity is compatible with categorical difference: a difference arising not from metaphysical rupture or intrinsic hierarchy, but from the emergence of qualitatively distinct modes of normative responsiveness.

In this paper, the notion of categorical difference does not refer to a metaphysical rupture between humans and other animals, nor to a claim of intrinsic moral superiority. Rather, it designates a structural transformation in the organisation of agency that emerges when cognitive capacities enable explicit normative articulation. A difference is categorical when it introduces a new level of organisation governed by qualitatively distinct principles, rather than merely increasing complexity along an existing scale [21,55]. What changes is not merely behavioural sophistication but the structure of answerability within which action becomes assessable.

Human agency, on this account, is characterised by participation in the “space of reasons”—a domain in which actions and beliefs are not only causally responsive but subject to justificatory assessment, revision, and institutional stabilisation [21,56]. This transformation does not negate evolutionary continuity in sentience, affect, or practical intelligence; instead, it introduces a distinct normative role grounded in reflexive accountability. The shift concerns the mode of responsiveness governing agency rather than the possession of experiential life.

Categorical difference, as employed here, therefore concerns modes of normative responsiveness rather than degrees of intelligence or moral worth. Its ethical significance lies not in licensing domination but in grounding asymmetrical responsibility: beings capable of explicit norm-governed self-binding bear a heightened obligation to justify and constrain the exercise of power over vulnerable others [23,48]. The asymmetry is functional and normative, not axiological.

Recognition of animal moral considerability need not presuppose reciprocity in the strong sense. Ethical responsibility may arise precisely from asymmetry, insofar as humans alone possess the normative self-understanding required to articulate and institutionalise moral obligations.

Several evolutionary and philosophical accounts argue that evolutionary processes may generate not only gradual variation but also qualitative reorganizations in cognition and sociality. Deacon identifies symbolic language as a transformative development in cognitive evolution, enabling forms of abstraction and reference not reducible to immediate perception [54]. Ginsburg and Jablonka describe major evolutionary transitions in consciousness as involving new modes of information integration [57]. Godfrey-Smith emphasizes the development of “offline processing”—the capacity to decouple cognition from present stimuli—as central to imagination, planning, and counterfactual simulation [55]. Tomasello argues that uniquely human forms of shared intentionality underpin norm-governed cooperation, cumulative culture, and institutional agency. These capacities support the claim that evolutionary continuity may coexist with structural transformations in representational organisation, social coordination, and reflexive normativity [58,59].

This claim can be further refined by distinguishing between quantitative elaboration and categorical transformation. Some philosophical accounts suggest that certain developments in human cognition mark not merely degrees of complexity but entry into a distinct normative order. McDowell famously argues that human beings inhabit the “space of reasons”, a domain in which actions and beliefs are subject not merely to causal explanation but to justificatory evaluation. While non-human animals respond intelligently to environmental affordances, their responsiveness remains embedded within what McDowell calls the “realm of law”, governed by causal regularities rather than explicit normative appraisal. The human capacity to give and ask for reasons introduces a dimension of answerability that transforms the structure of agency itself [21].

A related insight can be found in Scheler’s philosophical anthropology. Scheler distinguishes between organisms that are environmentally embedded (*Umweltgebundenheit*) and the human condition of world-openness (*Weltoffenheit*) [60]. Whereas animals inhabit functionally structured environments oriented toward survival and instinctual fulfilment, humans are capable of distancing themselves from immediate drives, objectifying their surroundings, and orienting themselves toward values as such. This capacity for value apprehension and reflective detachment does not deny biological continuity; rather, it suggests a qualitative reorganization within it.

The idea that humans inhabit a distinct normative order can be further clarified through Brandom’s inferentialist account of rational agency. For Brandom to participate in the “space of reasons” is to undertake commitments and to be liable to justificatory assessment within a community of discursive scorekeepers. Normativity, on this view, is not merely responsiveness to environmental cues but participation in practices of giving and asking for reasons. What distinguishes human agency is not simply higher intelligence, but entry into a structure of mutual accountability in which beliefs and actions stand in relations of entitlement and commitment [56].

This inferentialist perspective deepens McDowell’s claim. Whereas McDowell emphasizes the distinction between the realm of law and the space of reasons, Brandom

articulates the internal mechanics of that space: normative statuses are instituted through social practices of recognition and correction. Human beings do not merely act; they can justify, contest, revise, and be held answerable. Such practices generate a level of reflexive normativity that appears structurally distinct from the adaptive responsiveness characteristic of non-human animals.

While Brandom's inferentialism emphasizes discursive accountability, it should not be interpreted as severing normativity from its pre-discursive roots. Habermas argues that communicative rationality presupposes a shared lifeworld (*Lebenswelt*) within which mutual understanding is possible. Normative discourse is embedded in forms of social interaction that are affectively and historically structured. The capacity to give and ask for reasons develops within networks of trust, recognition, and shared vulnerability [61].

Ricoeur similarly underscores that ethical life begins not with formal legislation but with recognition. Before norms are articulated, the other is encountered as a being who can suffer and who calls for response. Ricoeur's formulation of the ethical aim—"the good life, with and for others, in just institutions"—integrates selfhood, solicitude, and institutional normativity into a single arc. The space of reasons, therefore, is not disembodied rationalism; it is rooted in relationality [62].

Under this broader view, empathy is not opposed to normativity but conditions it. Affective attunement makes recognition possible; discursive justification refines and stabilizes it. Human entry into a fully explicit normative order presupposes capacities that are evolutionarily continuous with animal sociality, even as it reorganizes them at a higher level of articulation. The difference concerns institutionalization and explicitness rather than absolute rupture.

This line of thought also strengthens the connection with Korsgaard's account of moral standing. For Korsgaard, rational agents are capable of reflecting on the grounds of their actions and endorsing principles as reasons. The capacity for reflective endorsement situates humans within a legislative dimension of normativity: we can bind ourselves by principles we recognize as authoritative. However, Korsgaard simultaneously maintains that moral standing does not depend on participation in this legislative space. Animals, though not co-legislators, possess a good of their own that rational agents are bound to respect. The asymmetry thus lies not in value but in normative role [23].

Interpreted together, McDowell, Brandom, and Korsgaard allow a refined formulation of categorial difference: humans are beings for whom norms can become explicit objects of reflection, justification, and revision. This does not imply that animals lack agency altogether, but that the structure of their agency may not involve discursive answerability in the same sense. The distinction therefore concerns forms of normative articulation rather than metaphysical separation.

Yet this position carries potential risks. Grounding distinctiveness in access to the space of reasons may appear to introduce an elitist hierarchy in which discursive competence becomes the criterion of higher status. If moral responsibility is tied too tightly to rational articulation, one risks marginalizing humans whose capacities for reflection are impaired, or overstating the gulf between human and animal forms of practical intelligence. Moreover, recent ethological research increasingly documents forms of social learning, norm sensitivity, and proto-cultural transmission in several non-human species, complicating sharp discontinuities.

The defensible conclusion is therefore modest but significant: entry into a fully explicit normative order—characterized by justificatory discourse and self-binding commitment—marks a structural transformation in agency. However, this transformation grounds responsibility rather than superiority. Precisely because humans can recognize, articulate, and institutionalize norms, they bear the burden of justifying how asymmet-

rical power is exercised. Categorical difference, properly understood, intensifies ethical accountability rather than underwriting domination.

Interpreted naturalistically, these accounts do not reintroduce metaphysical dualism. Instead, they clarify that evolutionary processes may yield emergent normative capacities that alter the structural profile of agency without severing continuity with animal life. Categorical difference concerns modes of normative responsiveness, not supernatural exception. Human distinctiveness lies not in exemption from nature, but in the emergence of reflexive answerability within it.

Throughout this section, expressions such as “space of reasons”, “normative order”, and higher-order organisational thresholds refer to overlapping aspects of reflexive normative articulation rather than to ontologically discrete substances or realms.

Recognizing such differences, however, does not license domination. Affirming human distinctiveness need not reinstate metaphysical exceptionalism. Williams provides a crucial clarification: ethical concern for animals does not depend on symmetrical reciprocity. On the contrary, our moral responsibilities toward animals arise precisely from the asymmetry of our reflective capacities. Before asking how animals should treat us—a conceptually incoherent question—we must acknowledge that the only meaningful ethical question concerns how we should treat them. Williams further argues that the analogy between speciesism and racism has limits, because in human–animal relations the asymmetry is structurally real rather than prejudicial. Moral consideration, therefore, can be grounded in difference rather than erased by it [48].

Korsgaard develops this asymmetrical framework further. While non-human animals cannot participate in reciprocal moral legislation, they nonetheless possess a good of their own. Moral standing does not depend on mutual recognition but on the fact that conscious beings experience their own welfare as normatively significant. Animals are “fellow creatures” whose lives matter from their own point of view, even though moral relations among humans involve additional layers of reciprocal normativity. Inclusion within the moral community thus reflects our reflective endorsement of their status as beings with evaluative experience, not their participation in shared legislation [23].

Schopenhauer offers an earlier articulation of this graded perspective. In *The World as Will and Representation*, he maintains that animals possess representational consciousness and are capable of suffering, thereby meriting moral consideration. At the same time, he affirms that humans exhibit a distinctive capacity for abstract reflection. Compassion (*Mitleid*), for Schopenhauer, arises not from denying ontological difference but from recognizing shared vulnerability within an ontological gradation [63]. Moral regard emerges from continuity in sentience, even as cognitive differentiation remains intact.

Taken together, these accounts suggest that affirming human uniqueness does not necessitate anthropocentric hierarchy. Evolutionary continuity is compatible with structural asymmetry. The crucial question is how asymmetry is interpreted: as a warrant for privilege or as a ground of obligation. The present account of symbiotic humanism adopts the latter position. Greater cognitive, technological, and institutional power generates greater justificatory burden. Human distinctiveness, understood naturalistically, grounds duties rather than entitlements.

Rather than announcing a civilizational rupture or a comprehensive ethical overhaul, the position developed here should be understood as a conceptual reorientation within existing philosophical and scientific debates. The aim is not to prescribe a singular moral horizon, but to clarify how evolving empirical findings and theoretical commitments constrain and reshape the space of defensible ethical positions regarding human–animal relations.

The aim, therefore, is neither to collapse species differences into an undifferentiated moral field nor to reassert hierarchical domination. Instead, it is to reconceive asymmetry as a site of responsibility. Ethical maturity consists not in denying difference, but in refusing to convert difference into domination.

2.4. *The Philosophical Turn: Consciousness, Language, and the “Other”*

While biology and psychology advanced the empirical side of the debate, 20th-century philosophy introduced new conceptual tools for thinking beyond human exceptionalism. Nagel’s seminal essay “What Is It Like to Be a Bat?” reframed the problem of consciousness by grounding it in subjective phenomenology. Nagel argued that consciousness is characterised by a “what-it-is-likeness”—an inherently first-person quality that resists objective reduction. His essay crystallised the “other minds problem” for animals: we can never fully know what it is like to be another species, but that epistemic limitation does not warrant denying their experience [64].

Parallel developments in early 20th-century continental thought include Frederik J. J. Buytendijk’s pioneering work in animal psychology, which combined phenomenological description with empirical observation to explore the expressive and behavioural worlds of animals. Buytendijk’s analyses emphasized that animal behaviour reveals meaningful, organism-specific modes of engagement rather than mechanistic stimulus–response patterns, thereby anticipating later phenomenological and enactive approaches to animal subjectivity [65].

Simultaneously, phenomenology and post-structuralism contributed to dismantling anthropocentrism. Merleau-Ponty posited a pre-reflective, embodied consciousness that connects all living beings through shared perceptual worlds—a notion that undermines Cartesian dualism [66]. Later, Derrida in *The Animal That Therefore I Am* exposed the linguistic and ethical violence embedded in the category “animal”, which functions as a “non-concept” erasing multiplicity among non-human beings. Derrida’s deconstruction of the human/animal binary emphasised vulnerability and mutual exposure as the basis of ethical relation [67].

Haraway’s *When Species* extended this insight to material and relational dimensions, introducing the concept of companion species to describe the co-constitutive interactions of humans and animals. Haraway argues that “becoming with” animals dissolves boundaries between subject and object, ethics and ontology [17]. Her multispecies relationality bridges phenomenology, feminism and science studies, opening a path toward what Wolfe later termed posthumanism—a theoretical orientation that refuses to ground ethics on human uniqueness [18].

2.5. *The Continuity Paradigm in Contemporary Thought*

Modern cognitive science and philosophy of mind increasingly support the view that consciousness is not an all-or-nothing property but a gradated continuum [7,8,10].

Research into cephalopods, corvids and mammals reveals complex cognitive and affective capacities—including problem solving, memory, play and self-recognition—suggesting that consciousness may have multiple evolutionary instantiations [8,16]. Godfrey-Smith’s *Other Minds* illustrates how octopuses exhibit forms of awareness that challenge anthropocentric models of intelligence, emphasising the diversity of conscious life [8].

However, this continuity paradigm must be critically balanced against perspectives that recognise human uniqueness without dismissing them as mere relics of outdated metaphysics or ideological bias. Darwin’s theory undermined notions of extranatural human origins but does not necessarily erase ontological differences [47]; to assume otherwise commits the genetic fallacy, conflating evolutionary origins with essential nature [8]. For

instance, viruses and chimpanzees share evolutionary processes, yet profound metaphysical distinctions persist—one lacks the integrated subjectivity of the other. Similarly, between chimpanzees and humans, evolutionary continuity coexists with categorical leaps.

Numerous hypotheses naturalistically account for human distinctiveness. Godfrey-Smith, highlights “offline processing”—imagination detached from immediate sensory input—as a uniquely human feature enabling abstract planning and creativity [55]. Deacon posits symbolic language as a pivotal evolutionary innovation, co-evolving with brain structures to enable recursive, referential thought beyond indexical signalling [54]. Ginsburg and Jablonka extend this, arguing that transitions to symbolic communication mark the emergence of reflective consciousness, distinguishing human rationality from animal sentience [68]. Tomasello emphasises the unique evolutionary path to human sociality, culture, and normativity: cumulative cultural evolution fosters shared intentionality, cooperative norms, and moral reasoning absent in other primates [59].

These views demonstrate that human uniqueness need not invoke exceptionalist tenets like Judeo-Christian theology or Cartesian metaphysics, nor Aristotelian hierarchies. Instead, they ground differences in naturalistic processes, challenging the paper’s initial impression of a seamless continuum. Importantly, recognising such uniqueness does not inevitably entail disregard for animal sentience, interests, or agency, nor justify exploitative practices like industrial farming. On the contrary, ethical concern for animals may presuppose fundamental asymmetry. Schopenhauer recognised animal sentience and representational consciousness while distinguishing humans by rationality and self-reflection, famously deploring cruelty as a metaphysical violation of compassion [63].

Williams elaborates: “A concern for nonhuman animals is indeed a proper part of human life, but we can acquire it, cultivate it, and teach it only in terms of our understanding of ourselves. Human beings both have that understanding and are the objects of it, and this is one of the basic respects in which our ethical relations to each other must always be different from our relations to other animals. Before one gets to the question of how animals should be treated, there is the fundamental point that this is the only question there can be: how they should be treated. The choice can only be whether animals benefit from our practices or are harmed by them. This is why speciesism is falsely modeled on racism and sexism, which really are prejudices. To suppose that there is an ineliminable white or male understanding of the world, and to think that the only choice is whether blacks or women should benefit from ‘our’ (white, male) practices or be harmed by them: this is already to be prejudiced. But in the case of human relations to animals, the analogues to such thoughts are simply correct.” [48].

Williams, further notes that contractualism and utilitarianism fail to capture this asymmetry, advocating in papers such as “Must a Concern for the Environment Be Centred on Human Beings?” [69] and “The Human Prejudice” [22] that environmental ethics centres on human responsibility without anthropo-centrism [48].

Korsgaard aligns with this: Kant “refuses moral standing to the other animals because he thinks that, not being autonomous, they cannot participate in reciprocal lawmaking and so cannot be members of the moral community,” yet “in one way, of course, he is right. We cannot enter into reciprocal relations with the other animals. If we decide we must value their good as we do our own, they are not going to return the favour. Nevertheless, each of us stands in a relation to him- or herself that is the ultimate basis of all value. That relation is that we each take the things that are good-for us to be good absolutely, rationally endorsing the natural tendency of conscious living beings, of creatures, to pursue their own good as if it were good absolutely. We recognize that this is a condition we share with all other creatures. Our reason for including animals in the moral community is just that: that we recognize them to be fellow creatures, with a good of their own just like ours.

According to the arguments I have just given, our moral relations to the other animals have a different basis and a different shape than our moral relations to other people.” [23].

This balanced synthesis avoids partisan dismissal: continuity paradigms enrich understanding, but acknowledging asymmetry fosters robust ethics, where duties arise from human capacities for reciprocity and reflection, not exploitative dominance.

Philosophers such as Birch have further articulated the precautionary principle in consciousness attribution: given the epistemic limits of knowing other minds, ethical prudence requires extending moral consideration to any beings for whom consciousness is plausible [70]. This perspective echoes the Cambridge Declaration on Consciousness [71], which affirmed that humans are not unique in possessing neural substrates supporting consciousness.

In parallel, de Waal argued that empathy, fairness and cooperation—long regarded as distinctively human virtues—are deeply rooted in our evolutionary past. De Waal’s *Are We Smart Enough to Know How Smart Animals Are?* exposes cognitive biases that prevent recognition of animal intelligence, urging a shift from comparing animals to humans toward appreciating species-specific cognition [72].

Finally, the continuity paradigm intersects with eco-phenomenology and animal ethics, which situate consciousness within relational and ecological contexts [73,74]. These approaches dissolve the ontological boundaries that isolate humans from the living world, conceiving consciousness not as an internal property but as a dynamic, intersubjective process of world-making. While the anti-anthropocentric thrust of contemporary scholarship has been invaluable in dismantling rigid human–animal binaries, a fully balanced presentation must acknowledge counter-perspectives that defend human uniqueness without recourse to outdated metaphysics. Evolutionary continuity does not necessarily obliterate ontological differences; conflating origin with essence risks the genetic fallacy [8]. Hypotheses such as offline processing [55], symbolic language [54], reflective transitions [68] and cumulative normativity [59] offer naturalistic accounts of categorical human distinctiveness. These views do not entail disregard for animal sentience or justify exploitation; rather, they support asymmetrical ethical relations [23,48,63], where duties arise from human capacities for reciprocity and reflection.

This synthesis preserves the transformative potential of relational frameworks while incorporating critical challenges, avoiding both partisan dismissal and uncritical relativism.

As illustrated in Table 1 below, these comparative ontologies highlight the tensions between evolutionary continuity and human uniqueness, providing a structured overview that balances the perspectives discussed and facilitates a critical examination of their ethical implications in the ongoing debate. Rather than privileging a single paradigm, Table 1 highlights points of convergence and tension between evolutionary continuity, accounts of human distinctiveness, and relational posthumanist proposals.

Table 1. Comparative Frameworks in Contemporary Debates on Animal Consciousness and Moral Status.

Framework	Primary Level	Core Thesis	Key Proponents	Ethical Implications	Main Limitations/ Critical Challenges
Anthropocentric Hierarchical	Ontological	Humans occupy a privileged ontological and moral position grounded in rationality or soul; animals lack full moral standing.	[4,28]	Historically associated with instrumentalisation of animals and justification of domination.	Vulnerable to hierarchical exclusion; neglects evolutionary continuity and empirical evidence of animal cognition [12].
Evolutionary Continuity	Ontological	Consciousness and cognition exist along a graded continuum across species; differences are primarily of degree.	[7,47,72]	Expands moral considerability to sentient animals; challenges human exceptionalism.	Risks committing the genetic fallacy (origin ≠ ontological status); may underplay categorical cognitive differences [48].

Table 1. Cont.

Framework	Primary Level	Core Thesis	Key Proponents	Ethical Implications	Main Limitations/ Critical Challenges
Human Uniqueness (Asymmetrical Ethics)	Ontological/Metaethical	Humans possess naturalistically evolved capacities (e.g., symbolic language, normativity) that ground asymmetric moral responsibility without denying animal sentience.	[23,48,54,55,59]	Grounds duties toward animals in human reflective capacities; supports strong animal protection without requiring reciprocity.	May appear normatively conservative; risks being misread as covert anthropocentrism.
Pragmatic Pluralism/Precautionary Gradualism	Ethical/Epistemological	Moral considerability should be extended under uncertainty using precautionary, evidence-sensitive criteria.	[3,8,75]	Policy-relevant; avoids both exceptionalism and speculative relationalism; supports incremental reform.	May under-theorise relational and cultural dimensions of human–animal relations.
Relational Posthumanism	Onto-ethical	Agency and consciousness emerge through multispecies relations; dissolves rigid human/animal binaries.	[17,18,76]	Encourages empathy, corporeal compassion, and multispecies ethics; critiques domination.	Normative indeterminacy; unresolved conflicts of interest (e.g., multispecies personhood); risk of disorienting relativism [77]
Embodied Phenomenological	Epistemological	Consciousness is embodied, situated, and species-specific; access to other minds is analogical, not reductive.	[65,66,78,79]	Promotes methodological humility; resists reductionism and anthropomorphic projection.	Incommensurability threatens semantic clarity of “consciousness”; limited normative guidance [64].
Vital Bioethical	Ethical	Animal sentience and vulnerability ground moral duties independent of rationality or reciprocity.	[63,80]	Condemns cruelty; affirms asymmetrical responsibility without denying difference.	Focuses primarily on sentience; less attentive to complex forms of agency.

Source: [3,4,7,8,12,17,18,23,47,48,54,55,59,63–66,75–80].

To clarify the philosophical landscape and address both continuity-based and asymmetry-based approaches, Table 1 synthesises the major ontological, epistemological, and ethical frameworks currently structuring debates on animal consciousness and moral status.

Limits of Continuity: Asymmetry, Responsibility, and the Problem of Reciprocity

While the continuity paradigm has powerfully challenged human exceptionalism, several influential ethicists argue that evolutionary and cognitive continuity does not entail moral or relational symmetry between humans and other animals. Williams contends that ethical relations with animals are necessarily asymmetrical because only humans possess the reflexive self-understanding that makes moral responsibility conceptually possible. For Williams, concern for animals is a genuinely human moral achievement, but it remains grounded in distinctly human capacities of interpretation, deliberation, and normative accountability. Consequently, to frame human–animal relations as fully reciprocal risks misconstruing the structure of moral agency itself [48].

Korsgaard similarly rejects reciprocity as the foundation of animal ethics, yet reaches a more inclusive conclusion than Kant. She argues that animals lack the capacity for reciprocal law-making, but nonetheless have a “good of their own” grounded in their status as conscious, self-maintaining beings. On this view, humans have duties to animals not because animals can reciprocate, but because humans recognize in them the same basic normative orientation toward their own flourishing that underpins all value [23]. This position complicates strong relational or symbiotic models of ethics: it affirms robust moral obligations to animals while preserving a structural asymmetry in agency and responsibility.

These perspectives pose a substantive challenge to relational posthumanism. If ethical responsibility is irreducibly asymmetrical, then calls for fully reciprocal multispecies relationships must clarify how reciprocity is to be understood—whether as moral symmetry, affective attunement, or ecological interdependence rather than juridical or contractual equality. Rather than rejecting continuity, Williams [22] and Korsgaard [23] suggest that recognizing difference may be ethically indispensable: humans may bear heightened responsibilities precisely because of their distinctive cognitive and normative capacities.

This tension indicates that the continuity paradigm must be complemented by a theory of differentiated responsibility, in which interspecies care does not rely on mutual exchange but on human accountability for the conditions of shared worlds.

2.6. Summary

The philosophical trajectory from Aristotle to posthumanism reveals a gradual but profound decentring of the human subject. What began as metaphysical hierarchy has evolved into a relational ontology recognising continuity among species. The question is no longer whether animals possess consciousness, but how different forms of consciousness manifest across evolutionary and ecological contexts—and what moral obligations this recognition entails.

In this historical light, the study of animal consciousness becomes not merely a scientific or philosophical pursuit but a transformative ethical project. Understanding animals as conscious and agentic beings invites us to rethink the boundaries of personhood, moral value and even knowledge itself. This historical trajectory should not be interpreted as a linear narrative of moral or intellectual progress. Shifts in the conceptualization of animality reflect changing metaphysical commitments, scientific paradigms and socio-political contexts rather than a simple movement from error to enlightenment [27,81]. Earlier frameworks often contained resources—such as Schopenhauer’s account of compassion—that remain philosophically significant, even when embedded within hierarchical ontologies. The present reconstruction therefore aims not to supersede prior traditions wholesale, but to reconfigure enduring tensions between continuity and distinction in light of contemporary knowledge.

Human Uniqueness and Asymmetrical Ethics: Objections and Responses

While the continuity paradigm has been central to recent efforts to dismantle anthropocentric hierarchies, several philosophers have cautioned against interpreting evolutionary continuity as entailing ontological or normative equivalence between humans and other animals. A critical review of the literature therefore requires engagement with positions that defend a form of human distinctiveness without reverting to metaphysical exceptionalism or denying animal sentience.

A first line of objection concerns what has been described as the genetic fallacy: the assumption that explaining the evolutionary origin of a capacity suffices to determine its ontological or normative status. As Williams observes, the fact that humans and other animals emerge from a shared evolutionary process does not by itself settle questions concerning the structure of agency, responsibility, or moral relations. Evolutionary genealogy clarifies how capacities arise, but it does not determine the normative roles associated with those capacities. From this perspective, continuity in origin is compatible with asymmetry in ethical responsibility [48].

Contemporary philosophy of mind and cognitive science has offered several naturalistic accounts of human distinctiveness that do not rely on theological or Cartesian premises. Godfrey-Smith emphasizes the role of offline cognition—the capacity to disengage perception from immediate environmental stimuli—as a key factor enabling imagination, counterfactual reasoning, and long-term planning [55]. Similarly, Deacon argues that symbolic language represents a qualitative reorganization of cognitive architecture rather than a mere quantitative increase in complexity [54]. Ginsburg and Jablonka further contend that transitions to symbolic communication mark an evolutionary shift toward reflective consciousness, introducing new forms of norm-governed behavior [68]. Tomasello situates human uniqueness in the emergence of shared intentionality and cumulative

cultural normativity, which underpin institutions, moral reasoning, and explicit justification practices [59].

Importantly, the recognition of such distinct capacities does not entail the denial of animal consciousness, agency, or moral considerability. On the contrary, several influential ethical accounts argue that moral responsibility toward animals presupposes an asymmetrical relationship rather than reciprocal equality. Schopenhauer famously condemned cruelty toward animals on the grounds of their capacity for suffering and representational consciousness, while nonetheless maintaining that humans possess a distinctive capacity for abstract reflection. For Schopenhauer, compassion arises not from erasing difference but from recognizing shared vulnerability within an ontological gradation [63].

Williams develops this asymmetrical view further, arguing that ethical concern for animals does not mirror relations among humans. Unlike racism or sexism, the asymmetry between humans and animals is not a prejudicial distortion but a structural feature of the relationship. Animals cannot participate in reciprocal moral legislation, and therefore the only meaningful ethical question concerns how humans ought to treat them. Moral responsibility arises precisely from the human capacity for reflection, justification, and institutional regulation, rather than from claims of superiority [48].

Korsgaard offers a complementary account grounded in Kantian moral philosophy. While animals cannot be members of the moral community in the sense of reciprocal lawmaking, they nonetheless possess a good of their own. Korsgaard argues that moral standing derives from the fact that conscious beings experience their own welfare as normatively significant. Humans, as reflective agents, are therefore obligated to recognize and protect animal goods, even though the structure of moral relations between humans and animals differs from that among humans themselves [23].

Taken together, these perspectives suggest that ethical concern for animals need not depend on denying human distinctiveness or asserting symmetrical reciprocity. Rather, evolutionary continuity in sentience can coexist with categorical differences in normative agency. A critical and balanced account of human–animal relations must therefore acknowledge both continuity and asymmetry: continuity in experiential life and vulnerability, and asymmetry in reflective responsibility and institutional power. Addressing this tension explicitly strengthens, rather than undermines, the philosophical foundations of non-anthropocentric ethics.

3. Animal Consciousness and Sentience

3.1. *Defining Consciousness and Sentience*

The concepts of consciousness and sentience are foundational yet notoriously difficult to define. To avoid persistent conceptual conflation, it is useful to distinguish at the outset between two levels of consciousness. Phenomenal (or basic) consciousness refers to the presence of subjective experience—there being “something it is like” to be a given organism [64]. This encompasses perceptual awareness, affective tone, and embodied responsiveness to the world, including experiences such as pain, pleasure, fear, or comfort. In this sense, sentience is best understood not as an alternative to consciousness but as a core affective dimension of phenomenal consciousness, since all sentient states are forms of felt experience [7]. By contrast, reflective or metacognitive consciousness denotes higher-order capacities such as thinking about one’s own mental states, constructing a narrative self, and engaging in symbolic or norm-guided reasoning. While this level is plausibly present in humans and, to varying degrees, in some other species, it is not required for moral considerability; the ethical threshold lies at the level of phenomenal consciousness rather than reflexive self-awareness [8].

Sentience is often defined more narrowly as the capacity for affectively valenced states such as pain, pleasure, distress, or well-being [10,12,82]. Sentient states are evaluative experiences: they are felt as positive or negative and therefore ground the possibility of harm or benefit. For this reason, sentience has frequently been treated as the threshold for moral considerability [12]. However, consciousness and sentience should not be treated as sharply opposed categories. If consciousness is defined, in Nagelian terms, as subjective experience, then affective states such as pain and pleasure already constitute dimensions of consciousness. Sentience thus emerges not as an alternative to consciousness but as a core affective-evaluative dimension within it.

This clarification requires further nuance to avoid conceptual confusion. While all sentient states are phenomenally conscious, not all forms of consciousness presuppose complex cognition, language, or reflective self-awareness. Many contemporary philosophers and neuroscientists therefore regard consciousness and sentience as graded and multidimensional phenomena (see Table 2) rather than binary categories [7,83].

Table 2. Conceptual Distinctions in Contemporary Theories of Consciousness and Moral Status.

Concept	Minimal Definition	Key Proponents	Empirical Indicators	Normative Implication	Limits/Controversies
Sentience	Capacity to experience affective states (pain, pleasure, distress)	[10,12,75]	Noceptive systems; behavioural avoidance; affective modulation	Grounds moral considerability via capacity for suffering	Risk of reduction to hedonic calculus; threshold disputes
Phenomenal Consciousness	“What-it-is-like” subjective experience	[64,84]	Integrated perception; global neural activity; flexible behaviour	Supports claims about experiential welfare	Hard problem; epistemic inaccessibility
Access/Functional Consciousness	Information globally available for reasoning and action	[84,85]	Neural integration (e.g., global workspace); reportability	May ground agency and responsibility	May exclude non-linguistic animals
Agency	Capacity for goal-directed, self-initiated action	[8,59]	Behavioural flexibility; learning; environmental tracking	Grounds differentiated responsibility and moral regard	Degrees of agency; human exceptionalism debate
Reflective Self-Consciousness	Capacity for self-evaluation and norm-governed deliberation	[23,54]	Symbolic language; metacognition; norm-following	Grounds asymmetrical moral obligations	Contested uniqueness; genetic fallacy risk

Source: [8,10,12,23,54,59,64,75,84,85].

The conceptual landscape surrounding animal consciousness and moral status is marked by terminological overlap and theoretical divergence. Table 2 systematizes key distinctions that are often conflated in the literature. Importantly, not all forms of consciousness entail the same normative consequences. While sentience typically suffices for moral considerability grounded in vulnerability to suffering [12,75], higher-order capacities such as reflective self-consciousness may justify differentiated forms of responsibility without negating shared moral standing [23]. Recognizing these distinctions prevents both reductive flattening and unwarranted hierarchization. It also clarifies that debates about animal ethics frequently hinge on which conception of consciousness is being presupposed rather than on empirical disagreement alone.

On this dimensional model, consciousness encompasses varying degrees of responsiveness, perceptual integration, affective evaluation, behavioural flexibility, and forms of internal world-modelling that differ across species [8,55,68]. Sentience is best understood, within this framework, as a central evaluative dimension embedded within a broader experiential architecture.

One of the central difficulties in theorising animal consciousness concerns the epistemological criteria by which subjective experience can be attributed beyond the human case. Nagel’s “what-it-is-like” formulation illuminates the irreducibly first-person character of experience but does not specify operational markers for cross-species attribution [64]. In this article, sentience is understood as a form of affective or valenced consciousness

involving the capacity for subjectively experienced positive or negative states [8,82]. By contrast, consciousness is treated as a multidimensional cluster concept encompassing affective, perceptual, cognitive, and self-referential dimensions that may vary independently across species [3,64]. This distinction allows ethical reasoning to focus primarily on sentience while recognising that broader forms of consciousness may differ significantly in structure and complexity without undermining the moral relevance of experiential states.

In response, contemporary philosophers increasingly adopt pluralistic and graded approaches. For example, Birch et al. [86] and Browning and Birch [7], proposes identifying credible indicators of affective integration and behavioural flexibility, while Godfrey-Smith [8,55] analyses consciousness as an evolutionary achievement that emerges in diverse structural forms. These approaches aim to avoid both anthropomorphic projection and radical scepticism by grounding attributions of consciousness in converging behavioural, neurobiological, and evolutionary evidence, acknowledging that no single criterion is decisive in isolation.

A further conceptual distinction is necessary between phenomenal consciousness and self-consciousness. Self-consciousness involves reflective awareness of oneself as a subject of experience and is often associated with metacognitive capacities, symbolic representation, and temporally extended self-models [59]. Many non-human animals plausibly exhibit phenomenal consciousness and sentience without possessing robust forms of reflexive self-conception. Distinguishing these levels prevents the mistaken inference that the absence of human-like rationality or linguistic competence entails the absence of morally relevant experience.

This multidimensional framework is also consistent with neuroscientific evidence. As Low et al. affirmed in the Cambridge Declaration on Consciousness, the preponderance of evidence indicates that “non-human animals, including all mammals and birds, and many other creatures, including octopuses, possess the neurological substrates of consciousness”. Endorsed by leading neuroscientists such as Koch, this declaration challenged residual Cartesian assumptions by affirming a shared biological basis for awareness across diverse taxa [71].

Taken together, this tripartite clarification—phenomenal consciousness, sentience, and self-consciousness—avoids conceptual conflation while preserving normative clarity. Consciousness refers broadly to subjective experiential presence; sentience designates its affective-evaluative dimension; self-consciousness denotes reflective meta-awareness. Ethical considerability, on this account, tracks sentience rather than reflective self-awareness. This framework neither collapses distinctions nor erects artificial boundaries. Instead, it recognises graded experiential diversity while preserving the moral salience of affective life.

3.2. Theoretical Frameworks for Animal Consciousness

3.2.1. Neurobiological and Cognitive Perspectives

Modern neuroscience approaches animal consciousness through the study of neural correlates of consciousness (NCCs)—patterns of neural activity associated with awareness [85,87]. For instance, cortical and thalamic structures supporting integrative processing in humans have functional analogues in many other vertebrates. Seth, drawing on predictive processing models, conceptualises consciousness as “controlled hallucination”: a generative process in which the brain continuously predicts sensory input [83]. Such frameworks invite exploration of how other species construct perceptual worlds suited to their ecological needs.

Comparative cognition further supports the notion of diverse conscious systems. Marino and White summarises evidence for self-awareness and emotion in cetaceans, corvids and primates, highlighting convergent evolution of complex cognition [16].

Similarly, Allen et al. note that cephalopods exhibit decentralised nervous systems enabling problem-solving, exploration and play—forms of agency suggestive of experiential depth [3]. These findings resist anthropocentric assumptions that equate consciousness with linguistic or human-like reasoning. From a neurobiological perspective, this two-level distinction aligns with current models of consciousness. Predictive processing theories suggest that many animals may possess phenomenal consciousness grounded in affective and perceptual prediction systems, even in the absence of human-like metacognition [83]. Meanwhile, reflective consciousness likely depends on higher-order integrative and linguistic capacities that are unevenly distributed across species [8]. This supports a graded continuum model rather than a binary view of conscious versus non-conscious beings.

3.2.2. Phenomenological and Embodied Approaches

Phenomenological perspectives, by contrast, foreground the first-person structure of experience. Rather than reducing consciousness to neural mechanisms, these approaches—rooted in Merleau-Ponty’s notion of the lived body—emphasise embodiment and situated perception [66]. The animal’s consciousness, in this view, is not an inner theatre but a mode of being-in-the-world [73].

Von Uexküll’s concept of *Umwelt* remains central here: each species inhabits its own perceptual world structured by sensory modalities and ecological affordances [78]. To understand consciousness, one must therefore appreciate the unique *Umwelt* of each creature. For a bat, sonar defines the texture of experience; for a dog, olfaction constitutes its primary cognitive interface. These plural worlds challenge human representational dominance and open space for multispecies phenomenology [88]. This phenomenological reorientation was anticipated and further developed within early twentieth-century continental philosophical anthropology and animal psychology. Plessner in *Levels of Organic Life and the Human*, proposed a graded account of embodiment distinguishing between centric and excentric positionality, thereby articulating both continuity and structural differentiation between humans and other animals [79]. Similarly Buytendijk advanced a descriptive, non-reductionist animal psychology attentive to behavioural expression as meaningful rather than mechanistic [65]. Jonas, in turn, argued that metabolism and purposiveness already instantiate a primitive form of inwardness, grounding an ethics of responsibility toward living beings [80]. These traditions complicate both reductive naturalism and simplistic anti-hierarchical readings, showing that recognition of animal subjectivity has long coexisted with nuanced accounts of structural difference.

3.2.3. Ethical and Epistemological Considerations

The attribution of consciousness is also an epistemological and ethical problem. Since subjective experience is accessible only from the first-person perspective, we can never know another being’s consciousness directly [64]. Yet, as Browning and Birch argues, epistemic uncertainty does not justify moral exclusion. Birch’s precautionary principle holds that when credible evidence suggests a reasonable likelihood of consciousness, moral agents should err on the side of inclusion—extending protective consideration to those beings [7]. This principle has already influenced policy: the United Kingdom’s 2022 Animal Welfare (Sentience) Act legally recognised vertebrates and decapod crustaceans as sentient beings [89].

3.3. Empirical Evidence and Cross-Species Studies

Empirical studies increasingly demonstrate behaviours indicative of awareness, intentionality and emotion across taxa (Figure 1).

Mirror self-recognition tests	first applied to great apes (Gallup 1970)
	show positive results in dolphins (Reiss and Marino 2001)
	elephants (Plotnik, de Waal and Reiss 2006)
	magpies (Prior, Schwarz and Güntürkün 2008).
Problem-solving and planning abilities	Although controversial, these findings suggest self-representation and metacognitive capacities.
	have been observed in corvids, who use tools and plan for future needs (Raby <i>et al.</i> 2007).
Affective neuroscience	
	identifies homologous neural systems for fear, joy and attachment in mammals and birds (Panksepp 1998, 2011).
Cephalopods	
	exhibit complex exploration, play and personality traits (Mather and Anderson 1993; Godfrey-Smith 2016), implying an awareness shaped by radically different neural architectures.

Figure 1. Empirical Evidence of awareness, intentionality and emotion across taxa. Source: [8,90–97].

These findings support a distributed model of consciousness, where subjective experience arises from diverse neural and ecological configurations rather than a single cortical blueprint.

Empirical studies increasingly demonstrate behaviours indicative of awareness, intentionality and emotion across taxa (Figure 1). These findings support a distributed model of consciousness, where subjective experience arises from diverse neural and ecological configurations rather than a single cortical blueprint. However, the widespread occurrence of consciousness in living nature (e.g., in cephalopods or insects) must be distinguished from its physical basis in the body: human consciousness often localises to neocortex, but animal analogues may rely on subcortical structures like the amygdala or decentralised nervous systems [95,98]. These issues are interrelated yet distinct: evolutionary convergence enables broad occurrence, while varied embodiments (e.g., neurocortex vs. elsewhere) highlight multiple realisations [83].

At the same time, researchers caution against anthropomorphic projection. As Allen *et al.* notes, our interpretations often reflect human biases about cognition and emotion [3]. Recognising animal consciousness thus requires balancing empathy with methodological humility: accepting that other forms of awareness may be phenomenologically different from human experience, yet this does not render them unintelligible or morally irrelevant; it simply reflects the diversity of phenomenal consciousness across species.

Empathy, however, is not epistemically self-validating. As Bloom argues, empathic responses are often biased toward beings that resemble us and may encourage anthropomorphic projection rather than disciplined understanding [99]. The risk is not merely sentimental distortion but conceptual error: interpreting species-specific behavioural repertoires through a human phenomenological lens. Anthropomorphism, when uncritical, can obscure rather than illuminate the structure of non-human experience.

Yet abandoning empathy altogether would be equally problematic. De Waal emphasizes that cross-species affective attunement is rooted in shared evolutionary neurobiology, particularly within mammalian affective systems [72]. Empathy, understood minimally as sensitivity to distress or well-being, provides a heuristic entry point for inquiry. Its legitimacy depends on subsequent triangulation with behavioural, neurological, and ecological evidence [100]. Methodological humility, therefore, does not negate empathy but disciplines it.

The precautionary framework proposed by Birch et al. further refines this balance. Rather than demanding conclusive proof of subjective experience, Birch suggests that credible indicators of affective integration justify provisional moral consideration [82]. This approach avoids both epistemic arrogance and epistemic paralysis. We neither assume equivalence nor deny interiority in the absence of total transparency.

Acknowledging the possibility that forms of animal consciousness may be incommensurable with human phenomenology does not render the concept of consciousness meaningless. Rather, it suggests that consciousness functions as an analogical rather than a univocal concept. As Jonas argued, life exhibits gradations of interiority, and conceptual continuity across these gradations need not imply sameness of experiential structure [80]. Similarly, Godfrey-Smith emphasizes that consciousness may vary along multiple dimensions, making comparison possible without presupposing identity. The term “consciousness” thus operates as a family-resemblance concept, permitting cross-species application while recognising structural divergence [55].

Appeals to empathy as a primary ethical bridge to non-human animals face important limitations. Empathy is epistemically fragile and susceptible to projection, as human affective structures may be imposed upon forms of life whose experiential organization differs significantly from ours [64]. If animal consciousness is acknowledged as potentially incommensurable with human phenomenology, empathy cannot function as a secure epistemic foundation. Ethical recognition may therefore require conceptual and normative grounding that does not depend solely on affective identification but also on principled reflection concerning vulnerability, interests, and forms of flourishing [23].

3.4. Methodological Challenges

Studying consciousness in non-verbal subjects entails profound methodological limitations. The problem of inference—how to infer subjective states from observable behaviour—pervades the field [101].

Studying consciousness in non-verbal subjects entails profound methodological limitations. The problem of inference—how to infer subjective states from observable behaviour—pervades the field [101]. While behavioural proxies such as choice, learning and attention offer indirect evidence, they cannot definitively demonstrate experience. Neurophysiological approaches, including EEG and fMRI studies on animals, identify correlates of awareness [98], but correlation does not equal phenomenology.

Recent proposals advocate triangulating behavioural, neurological and evolutionary evidence [7]. For instance, identifying neural homologues of human NCCs in birds and cephalopods strengthens arguments for their consciousness [71]. Furthermore, affective neuroscience emphasises that subjective feeling may arise from subcortical circuits—such as the amygdala and periaqueductal grey—rather than neo-cortical processing alone [95,96,102].

Comparative predictive processing models, Clark [103] and Seth [83] propose that all animals possessing sensory systems capable of minimising prediction error might experience a primitive form of awareness. This hypothesis dissolves the human/animal divide and places consciousness within a broader evolutionary landscape.

Recognising animal consciousness thus requires balancing empathy with methodological humility: accepting that other forms of awareness may be incommensurable with human phenomenology.

The claim that animal forms of awareness may be incommensurable with human phenomenology should not be read as implying semantic opacity. Incommensurability does not entail that the concept of consciousness loses intelligibility when extended beyond the human case. Rather, it suggests that consciousness functions as a cluster or family-resemblance concept, encompassing multiple dimensions such as affective valence, perceptual integration, behavioural flexibility and world-directedness [8,86]. On this multidimensional view, different species instantiate partially overlapping profiles of consciousness without requiring phenomenological identity. The term “consciousness” is thus neither univocal nor equivocal, but analogical in application. Methodological humility therefore constrains epistemic projection without rendering cross-species attribution conceptually incoherent.

It is therefore important to delimit carefully the role that empathy can play in accounts of animal consciousness. While empathic responsiveness may function as a motivational catalyst for ethical concern, it is neither epistemically sufficient nor normatively foundational. Empathy cannot, by itself, warrant attributions of subjective experience or ground moral obligation without support from independent behavioral, neurological, and ecological evidence. Recognizing this limitation helps prevent the slide from ethical sensitivity into phenomenological projection, while preserving empathy’s legitimate role as a secondary, enabling disposition rather than a justificatory principle.

However, empathy is notoriously unreliable, prone to morphing into anthropomorphic projection—a danger not fully averted by humility alone. If animal consciousness is truly incommensurable, humility not only counterbalances empathy but underscores its potential uselessness. More critically, this raises a semantic challenge: if forms of consciousness are so alien, how can we intelligibly apply the term “consciousness” without emptying it of meaning? Allen et al. address this by advocating phenomenological pluralism, where shared evolutionary substrates allow analogous attributions without full commensurability [3].

3.5. *Sentience as the Ethical Fulcrum*

Sentience has emerged as the ethical fulcrum of contemporary animal welfare and moral philosophy. The ability to suffer or experience well-being grounds the extension of moral concern [11,12].

Distinguishing phenomenal from reflective consciousness clarifies the ethical stakes of the debate. Moral considerability does not depend on metacognitive self-reflection or language; it depends on the capacity to suffer or flourish—i.e., on phenomenal consciousness [7,12]. While reflective capacities may ground special duties among humans, they do not license the exclusion of animals from basic moral protection.

Whereas utilitarian and rights-based approaches ground moral considerability primarily in sentience [11,12,23,48] remind us that the grounds of obligation need not mirror the capacities of the beings to whom duties are owed. For Williams, our ethical relation to animals is shaped by what humans understand themselves to be, not by a putative symmetry of moral powers. Korsgaard, in turn, argues that recognizing animals as “fellow creatures” entails duties that are structurally different from duties to other persons, precisely because animals cannot participate in shared normative deliberation. These accounts caution against framing sentience-based ethics solely in terms of reciprocity, instead emphasizing responsibility, stewardship, and care.

Yet as Browning contends, ethical discourse must move beyond binary recognition of sentience to explore its qualitative richness—how animals experience different dimensions

of welfare [10]. For instance, behavioural evidence shows that pigs and chickens not only feel pain but also display curiosity, social attachment and boredom [104,105].

In this sense, sentience is not merely a threshold for inclusion but a spectrum of experiential complexity demanding contextual understanding. The more we learn about the diversity of animal minds, the more inadequate purely anthropocentric moral models appear.

This recognition carries profound implications. It redefines humans' moral community as a multispecies continuum rather than an exclusive circle of rational agents. The concept of moral expansiveness [106] captures this shift: extending empathy and moral concern beyond humans to animals and ecosystems reflects a broader transformation in ethical consciousness.

3.6. *The Transformative Potential of Recognising Consciousness*

Recognising animal consciousness does more than reshape ethical frameworks—it also transforms human self-understanding. As de Waal argues, accepting emotional and cognitive continuity between species erodes the myth of human exceptionalism and situates humanity within the animal kingdom [72]. This intellectual humility fosters empathy, compassion and ecological awareness.

Aloi observes that cultural representations of animals in art and media increasingly reflect this shift: animals are no longer passive symbols of otherness but participants in shared worlds [107]. Such transformations resonate with Haraway's call for becoming with: acknowledging co-evolutionary interdependence and moral reciprocity [17].

Ultimately, understanding animal consciousness requires both scientific pluralism and ethical imagination—the capacity to conceptualise subjectivity beyond the human. The challenge is not only epistemological but existential: to live responsibly amid a community of conscious others.

4. Non-Western and Relational Ontologies of Animal Life

4.1. *Conceptual Orientation: Beyond Hierarchical Moral Ontologies*

While Western philosophical traditions have often framed moral considerability in terms of hierarchical distinctions grounded in rationality, language, or self-reflective consciousness, many non-Western traditions approach animal life through relational, process-oriented, and non-dual ontologies. Rather than asking whether animals possess specific cognitive capacities analogous to human ones, these traditions tend to emphasise interdependence, shared vulnerability, and the continuity of life processes across species. Moral standing, on this view, is not conferred by the possession of particular traits but emerges from participation in a web of relations that binds humans, animals, and environments together [108,109].

This section does not aim to provide an exhaustive account of non-Western philosophies, but to identify recurring conceptual motifs that challenge dominant Western assumptions about consciousness, agency, and moral hierarchy.

4.2. *Buddhist Traditions: Sentience, Suffering, and Moral Continuity*

Buddhist philosophy offers one of the most developed non-Western frameworks for thinking about animal consciousness and moral considerability. Central to Buddhist ethics is the concept of dukkha (suffering), understood as a pervasive feature of sentient existence. Importantly, sentience (sattva) is not restricted to humans but extends to a wide range of beings capable of experiencing suffering and desire [110].

Within this framework, moral concern is grounded not in rational autonomy but in the capacity for suffering and the shared condition of impermanence. The doctrine of dependent origination (pratītyasamutpāda) further undermines rigid ontological

distinctions between species by emphasising that all phenomena arise relationally rather than possessing independent essences [111]. From this perspective, the moral relevance of animals follows directly from their participation in the same causal and affective networks as humans.

Contemporary Buddhist ethicists have argued that this relational ontology supports a robust form of moral considerability for animals without requiring attribution of human-like cognitive capacities [112]. Consciousness, on this view, is understood as a dynamic process rather than a discrete property, allowing for graded and pluralistic interpretations that resonate with contemporary scientific accounts of animal cognition.

4.3. Daoist Philosophy: Ziran, Wu Wei, and the Ethics of Non-Domination

Daoist philosophy provides a distinct relational alternative to hierarchical moral frameworks through its emphasis on ziran (naturalness) and wu wei (non-coercive action). In classical Daoist texts such as the Daodejing and the Zhuangzi, human attempts to impose rigid distinctions and instrumental control over the natural world are portrayed as sources of disorder and suffering [113,114].

Animals in Daoist thought are not conceived as morally inferior beings but as exemplars of spontaneous attunement to the Dao. The ethical ideal is not mastery but responsiveness, restraint, and the minimisation of harm arising from human intervention. As Ames argues, Daoist ethics resists both anthropocentrism and moral universalism, favouring instead a context-sensitive orientation grounded in relational balance [115].

Although Daoist texts do not articulate a formal theory of animal consciousness, their rejection of human exceptionalism and their critique of domination-oriented epistemologies offer a powerful counterpoint to Western models that ground moral standing in cognitive superiority.

4.4. Indigenous Relational Ontologies: Personhood, Kinship, and More-than-Human Worlds

Many Indigenous philosophies conceptualise animals as persons rather than objects, embedded within networks of kinship that extend beyond the human community. These relational ontologies challenge the ontological divide between nature and culture that underpins much of Western moral theory [116,117].

In such frameworks, animals are often regarded as intentional agents with whom humans enter into reciprocal relationships governed by norms of respect, responsibility, and restraint. Moral considerability does not depend on abstract criteria such as rationality but arises from lived relationships and shared ecological contexts [109,118].

Importantly, Indigenous approaches do not collapse differences between species but interpret them through relational roles rather than hierarchical ranking. This allows for ethical asymmetry without moral exclusion, a feature that aligns with contemporary proposals for asymmetrical responsibility in animal ethics.

4.5. Implications for Contemporary Debates on Animal Consciousness

Taken together, non-Western relational ontologies offer several important correctives to dominant Western approaches. First, they decentre consciousness as the sole or primary ground of moral considerability, emphasising instead relational embeddedness and shared vulnerability. Second, they support graded and pluralistic accounts of moral standing without relying on trait-based hierarchies. Third, they foreground ethical responsibility as arising from power, proximity, and impact rather than reciprocity or contract.

While these traditions cannot be straightforwardly assimilated into contemporary analytic frameworks, they enrich the conceptual landscape by revealing alternative ways of thinking about animal life that do not hinge on human likeness. Integrating these perspectives does not require abandoning philosophical rigor but invites a broader

understanding of the normative assumptions that shape debates on animal consciousness and ethics.

5. Animal Agency and Human–Animal Interactions

5.1. Reframing Agency Beyond Anthropocentrism

The notion of agency—traditionally defined as the capacity to act intentionally and effect change in the world—has long been reserved for human actors. Within the Western philosophical canon, agency is entwined with rationality, autonomy and moral deliberation [5,119]. Yet contemporary scholarship in animal studies, critical posthumanism and ethology increasingly contests this anthropocentric monopoly [17,76,120].

Haraway’s concept of companion species reframes agency as relational rather than individualistic: it emerges through interdependent processes of becoming-with. Animals, far from being passive objects of human domination, are co-creators of multispecies worlds [17]. In a similar vein, Despret argues that animals actively “make us act”—their behaviours, gazes and resistances shape human practices, emotions and knowledge systems [76].

In this sense, agency is distributed across networks of interaction rather than possessed solely by rational minds [121]. This relational ontology undermines Cartesian dualism and opens space for recognising animals as subjects of their own lifeworlds (Umwelten), endowed with intentionality, creativity and capacity for negotiation [122].

The shift from human-centred to multispecies agency marks a profound epistemological and ethical transformation. It compels reconsideration of what it means to act, to choose and to participate in shared ecologies.

5.2. Ethological Foundations of Agency

5.2.1. Observations from Cognitive Ethology

Cognitive ethology—pioneered by Griffin emerged as an empirical field exploring animals’ mental experiences. Griffin challenged the behaviourist taboo on anthropomorphism, arguing that interpreting behaviour as evidence of awareness is not sentimentality but scientific inference [123]. Since then, numerous studies have demonstrated complex decision-making and social learning indicative of intentional agency.

For instance, chimpanzees use tools adaptively and modify them for specific purposes [124]. New Caledonian crows craft hooks to retrieve food, reflecting causal reasoning [125]. Dolphins engage in cooperative hunting strategies that require role differentiation and communication [126]. These examples suggest not mere instinct but flexible agency—a capacity to innovate and respond to contingencies.

Similarly, elephants demonstrate empathy and coalition-building, often assisting injured conspecifics [127], while rats exhibit prosocial behaviours, freeing trapped peers even when no direct reward is available [128]. Such findings imply intentional action rooted in social cognition and affective awareness.

5.2.2. Beyond Instrumental Behaviour: Expressive and Resistant Acts

Agency also manifests through resistance and expression. Despret emphasises that animals “refuse” certain experiments, alter routines, or demand interaction on their own terms—acts that convey preferences and boundaries [76]. Some authors in posthumanist and ethnographic scholarship interpret such behaviours not merely as conditioned responses, but as forms of agency that participate in negotiations of power within multispecies relationships [129–131].

For example, in agricultural and laboratory contexts, animals frequently subvert human control through withdrawal, defiance or behavioural modification [132]. Recognising

these actions as agency reframes welfare not as passive protection but as the facilitation of animals' own life projects [133].

Even domesticated species display subtle forms of co-authorship: dogs, horses and parrots communicate desires through gaze, posture and vocalisation, shaping human behaviour reciprocally [134,135]. Thus, the boundaries between training and dialogue, domination and collaboration, become ethically charged zones of mutual adjustment.

5.3. *The Politics of Representation and Voice*

The question of how animals can “speak”—how their agency is represented within human systems of meaning—remains central to critical animal studies. As Wolfe argues, modernity has systematically silenced non-human subjectivity, translating animal acts into symbols or data stripped of selfhood [18].

Artistic and ethnographic practices increasingly attempt to restore animal voice by situating them as co-narrators rather than objects of observation [107]. In multispecies ethnography, researchers such as Kirksey and Helmreich advocate methodological attentiveness to animals' gestures, affects and spatial movements as forms of communication [136].

This epistemological humility—listening to the more-than-human—echoes Kohn's concept of anthropology beyond the human, where forests and animals “think” through semiotic processes not reducible to human language [137].

Ethically, granting voice implies acknowledging representational injustice: the historical exclusion of animals from narrative, law and political agency [20]. Their reinsertion demands not anthropomorphic ventriloquism but translation across species boundaries—a politics of attunement [76,138].

5.4. *Agency in Human–Animal Relations: From Domestication to Collaboration*

5.4.1. Historical Trajectories of Domestication

Domestication has long been interpreted as the human mastery of animal life. Yet, recent archaeological and genetic research complicates this view, showing that domestication was often a co-evolutionary process shaped by mutual adaptation [139]. Wolves, for instance, likely self-domesticated by affiliating with human settlements, initiating a process of reciprocal selection [140].

This reframing situates agency on both sides: humans shaped canine evolution through selection, while wolves' tolerance and sociability influenced human cultural development. The same holds for livestock, horses and companion animals, whose cooperation facilitated agriculture, mobility and emotional bonds [141].

5.4.2. Collaboration and Co-Working Species

Modern ethological and philosophical perspectives explore human–animal interactions as collaborative partnerships. Working animals—guide dogs, police horses, therapy animals—exemplify shared intentionality [59]. In these relationships, communication, trust and empathy form the basis of coordinated agency.

Studies of equine-assisted therapy [142] reveal that horses respond to subtle human emotional cues, modulating their behaviour accordingly—a form of interspecies emotional intelligence. Similarly, research on canine cognition shows that dogs interpret human pointing gestures and gaze direction, evidencing social attunement [143]. These findings indicate not subordination but dialogical cooperation.

Haraway famously describes agility training with her dog as a practice of response-ability: both partners become attuned to each other's rhythms, crafting meaning through bodily dialogue [17]. This framework dissolves hierarchy and replaces control with reciprocity.

5.5. *Technology, Surveillance and the Mediation of Agency*

The digital age introduces new dimensions to animal agency. Neethirajan discusses how artificial intelligence and biosensing technologies are used to interpret animal emotions and welfare, from facial recognition in cows to stress-detection algorithms in pigs [144]. While these tools can enhance welfare monitoring, they also risk reducing agency to quantifiable data—algorithmic empathy.

Conversely, some artists and scientists employ technology to amplify animal expression: interactive bioacoustic systems that allow whales or birds to trigger sounds, or wearable sensors that translate physiological states into visible patterns [145]. These innovations invite humans to encounter animal subjectivity through mediated dialogue.

However, as Wild et al. warns, such mediation may reinscribe control if animals' signals are filtered through human interpretive frameworks [146]. The challenge, therefore, is to cultivate technological humility—tools that facilitate listening rather than domination.

5.6. *Theoretical Implications: Agency as Relational Ontology*

Recognising animal agency necessitates a redefinition of ontology itself. Posthumanist theorists such as Barad [120] and Bennett [147] argue for vibrant materialism: a worldview in which all matter—organic and inorganic—possesses agentic potential. Within this framework, agency is not an attribute but a process of intra-action, emerging from relations among bodies, environments and technologies.

For animals, this means that their agency cannot be abstracted from ecological and social contexts. A wolf's hunt, a crow's tool-making, a whale's song—all are expressions of relational systems encompassing environment, kinship and affective resonance [73,76].

Such perspectives dissolve the dichotomy between "active humans" and "passive nature," revealing a continuum of vitality permeating the biosphere. This cosmological reorientation aligns with indigenous animisms and eco-phenomenologies that attribute ensouled presence to all beings [137,148].

5.7. *Ethical Reverberations of Recognising Animal Agency*

The moral implications of recognising animal agency are far-reaching. Traditional welfare models, based on paternalistic protection, give way to ethics of participation, consent and respect [133]. For instance, in animal-assisted therapy, practitioners increasingly emphasise the animal's willingness and emotional state, ensuring that interaction remains voluntary [149].

In conservation, recognising animal agency transforms management from species preservation to collaborative coexistence [150]. Rewilding projects, for example, now incorporate animals' behavioural choices rather than imposing rigid ecological roles.

Ultimately, an ethic that acknowledges agency calls for political inclusion: the recognition of animals as subjects of justice, not merely objects of care [20]. This expansion of the moral and political community redefines citizenship as multispecies coexistence.

5.8. *Summary*

The distinction introduced above between practical agency and discursive normativity helps prevent conceptual inflation. Non-human animals plausibly exhibit forms of intentional agency: they pursue goals, adjust behaviour flexibly, and respond to environmental affordances in ways that exceed mechanical reaction. Such agency is structured, purposive, and often socially mediated. However, participation in the explicit "space of reasons" [56] appears to require a further layer of reflexive articulation in which commitments can be made, challenged, and revised through justificatory discourse.

This distinction does not deny animal agency; rather, it differentiates levels of normative articulation. Animals may act for reasons in a minimal, teleological sense, yet humans uniquely appear capable of treating reasons themselves as objects of reflection. The difference concerns reflexive explicitness, not the presence or absence of agency as such. Animal agency thus represents both an empirical reality and a philosophical horizon. It compels a shift from domination to dialogue, from objectification to co-authorship. The human–animal relationship becomes a site of mutual becoming, where each species shapes the other’s evolution, cognition and moral imagination.

As Despret writes, “animals do not simply live in our world—they make worlds with us”. Recognising their agency therefore deepens our understanding of consciousness, ethics and the shared fabric of life [76].

5.9. *Practical Tensions of Multispecies Reciprocity*

At the outset, it is important to clarify that references to reciprocity in this discussion do not imply moral symmetry, contractual equality, or reciprocal obligation in a juridical sense.

Advocating reciprocal or symbiotic human–animal relations raises difficult practical questions that cannot be resolved solely through appeals to empathy or continuity. . . In real ecological and social contexts, the interests of different species frequently collide, revealing limits to any simple model of reciprocity.

References to reciprocity in this context should not be understood as implying moral symmetry, contractual equality, or reciprocal obligation in a juridical sense. Rather, they refer to forms of ecological and affective interdependence that remain structured by asymmetrical capacities for reflection, justification, and institutional agency. Without this clarification, appeals to reciprocity risk obscuring rather than illuminating the ethical structure of human–animal relations.

Three recurrent scenarios illustrate these tensions.

- (A) Predation in domestic and urban ecologies. . . The common case of a domestic cat hunting wild birds challenges relational ethics: the cat acts according to its species-specific predatory dispositions, while the birds suffer loss of life and population pressure [151]. A strict reciprocity model cannot require the cat to respect avian interests, nor can it straightforwardly blame the animal. Ethical responsibility therefore falls asymmetrically on humans, who shape habitats, manage pet populations, and decide whether to restrict roaming through bells, indoor housing, or designated wildlife buffers [20]. This suggests that multispecies ethics must prioritize human stewardship rather than interspecies reciprocity when agency is radically uneven.
- (B) Agricultural pests and food justice. . . When rodents or insects threaten crops, farmers face a conflict between human food security and the flourishing of non-human life. A reciprocity framework offers little guidance, since pests cannot negotiate or reciprocate restraint. Recent approaches in “just conservation” and “multispecies justice” propose instead a hierarchy of responsibilities: minimize suffering, prevent indiscriminate killing, and seek ecological alternatives such as integrated pest management, habitat corridors, and non-lethal deterrents [133]. This reframes the issue not as reciprocal exchange but as proportionate harm reduction grounded in human accountability.
- (C) Infrastructure and habitat loss. . . Large-scale projects such as hydroelectric dams may benefit human communities while devastating riverine ecosystems and displacing multiple species. Granting legal personhood to rivers or forests, as some jurisdictions have attempted, highlights rather than resolves the dilemma: whose “personhood” prevails when the river’s course threatens human livelihoods or adjacent forests? [152].

In these contexts, legal personhood operates primarily as a juridical instrument rather than a metaphysical assertion of literal personhood, and remains embedded within institutional frameworks designed to adjudicate conflicts of interest.

In such cases, a workable ethics must combine ecological representation with procedural mechanisms—independent guardians, environmental impact thresholds, and multi-species impact assessments—rather than rely on a vague ideal of mutual reciprocity [153].

Legal personhood in such cases functions as a juridical instrument rather than a metaphysical claim about literal personhood, and remains subject to institutional mechanisms for resolving conflicts of interest.

These examples indicate that relational or posthumanist ethics require a more precise vocabulary. Reciprocity may be understood productively as affective attunement and ecological interdependence, not as symmetrical moral or legal exchange. Where symmetry is impossible, ethical practice must rest on differentiated responsibility, precaution, and institutional design that protects vulnerable species while acknowledging unavoidable trade-offs.

6. Ethical Frameworks and the Moral Responsibilities of Humans Towards Non-Human Animals

6.1. Introduction: From Moral Distance to Moral Proximity

For centuries, Western moral thought placed a vast metaphysical and ethical gulf between humans and other animals. From Aristotle's *scala naturae*, which ranked beings by rational capacity, to Descartes' mechanistic dualism, which denied animals the status of sentient subjects, animals were conceived primarily as means to human ends [154,155]. Early modern philosophy is often presented as marking a sharp rupture in the consideration of animal consciousness, particularly in relation to Cartesian mechanism. While Descartes famously denied animals rational thought and linguistic competence, his account of animal sensation and affect is more ambivalent than is often acknowledged. In *The Passions of the Soul* (§50–52), animals are described as capable of passions arising from bodily mechanisms, suggesting the presence of affective states even in the absence of reflective self-awareness [156].

In the twentieth century, phenomenological approaches further complicated reductive accounts of animal experience. Merleau-Ponty emphasised the embodied and pre-reflective character of perception, arguing that subjectivity is not exhausted by higher-order cognition but emerges from an organism's practical engagement with its environment [66]. Although these accounts do not resolve the problem of access to non-human experience, they challenge purely intellectualist or representational models and continue to inform contemporary embodied and enactive theories of mind.

Yet the expansion of scientific understanding and moral imagination over the past half-century has begun to dismantle that anthropocentric edifice. The recognition of animal consciousness and sentience, discussed earlier, demands a profound re-evaluation of moral responsibility. As Midgley observed, "to understand our moral place in the world, we must see ourselves not as isolated rational beings, but as participants in a living community of creatures." [157].

The emergence of animal ethics as a distinct philosophical field in the 1970s, led by figures such as Singer [12] and Regan [11], marked a turning point in moral theory. Since then, the field has diversified to include care ethics, virtue ethics, posthumanism and animistic ethics, each offering new conceptual tools for reconceiving interspecies moral relations.

6.2. Utilitarian Foundations: The Ethics of Suffering and Well-Being

Utilitarianism remains a cornerstone of modern animal ethics. In *Animal Liberation*, Ref. [12] argued that the principle of equal consideration of interests extends beyond humans: any being capable of suffering or enjoyment has an interest in avoiding pain and seeking pleasure. Species membership, therefore, cannot justify unequal treatment—such bias constitutes speciesism, analogous to racism or sexism [158].

Singer's framework, grounded in Bentham's question "Can they suffer?" [159], provides a pragmatic foundation for assessing moral status. It has informed major welfare reforms, including the "Five Freedoms" and legislative changes in the European Union and the UK [160].

However, utilitarian ethics has been critiqued for its consequentialist reductionism—treating animals as units of welfare rather than unique subjects [161]. It also risks justifying harm if aggregate well-being is maximised (e.g., humane slaughter for food). As Nussbaum argues in *Justice for Animals*, moral concern must account not only for pleasure and pain but also for flourishing—the ability to live species-typical, meaningful lives [162].

Nussbaum's Capabilities Approach extends Aristotelian virtue ethics, proposing that justice requires enabling each being to realise its capacities in accordance with its nature. Thus, a bird's flourishing involves flight and song; a dolphin's involves social play and exploration. Moral responsibility, in this view, entails creating conditions for dignified animal life.

6.3. Deontological Approaches: Rights and Intrinsic Value

Regan's *The Case for Animal Rights* represents the deontological counterpart to Singer's utilitarianism. Regan posits that many animals are "subjects-of-a-life," possessing beliefs, desires, memories and a sense of the future [11]. These traits confer inherent value, granting animals moral rights independent of human use or welfare calculations.

Regan's argument challenges utilitarian trade-offs by asserting inviolable moral boundaries: to treat animals merely as means is to violate their moral personhood. His rights-based framework inspired subsequent legal and philosophical developments, including the recognition of non-human personhood in certain jurisdictions [163].

The Nonhuman Rights Project, for example, has pursued legal recognition of chimpanzees' and elephants' personhood in U.S. courts, invoking Regan's logic [163,164]. Though courts have been hesitant to extend full legal rights, these cases have shifted public discourse toward moral inclusion.

Deontological ethics thus reframes animal protection not as charity but as justice. It demands respect for autonomy, life and freedom, regardless of instrumental value. Yet critics such as Diamond note that rigid rights frameworks can abstract animals from the relational contexts through which moral understanding actually arises [165].

6.4. The Ethics of Care and Relational Responsibility

Emerging from feminist moral philosophy, the ethics of care offers a powerful corrective to abstract moral universalism. Gilligan [166] and Noddings [167] argued that moral reasoning grounded in empathy, attentiveness and relational responsiveness better reflects the moral fabric of lived life.

Applied to animal ethics, care theory emphasises the moral salience of relationships between humans and animals—whether companionate, professional, or ecological [168]. Donovan and Adams developed a feminist-vegetarian theory of care, arguing that genuine moral responsibility entails listening to animals' embodied communications, recognising their vulnerability, and resisting exploitative domination [169].

Ethics of care thus aligns with Haraway's notion of response-ability: moral life consists of cultivating attentiveness and mutual respect within multispecies communities [17]. Rather than abstract rights or aggregate welfare, it prioritises situated ethics—sensitivity to particular beings and contexts.

Yudkin et al. describes this approach as a shift from moral distance to moral proximity: seeing moral value not as universal law but as an ongoing practice of *living well together* [170]. In practice, this perspective underpins compassionate conservation, animal-assisted therapy ethics, and welfare design that honours animal agency.

6.5. Ecofeminism and Interconnected Oppressions

Ecofeminist theorists have long noted parallels between the domination of women, animals and nature within patriarchal and capitalist structures [171,172]. Plumwood diagnosed this as the logic of dualism: a system that constructs hierarchical oppositions—male/female, human/animal, culture/nature—and legitimises exploitation through devaluation of the subordinate term [172].

Ecofeminism reinterprets ethics as ecological interdependence, rejecting atomistic individualism. Gaard [173] and Gruen [174] extend this logic to advocate entangled empathy—a moral attitude grounded in recognising interconnectedness and shared vulnerability.

Through this lens, animal ethics becomes inseparable from environmental and social justice. Factory farming, for instance, is not only animal cruelty but also an ecological and gendered injustice, perpetuating systems of domination [175]. The moral task, therefore, is transformative solidarity—challenging the structures that sustain exploitation across species boundaries.

6.6. Posthumanist and Relational Ethics

Posthumanist thought, as articulated by Braidotti [176] and Haraway [138] dissolves the human/animal divide altogether. It envisions ethical life as embedded within assemblages of living and technological beings. Agency, subjectivity and responsibility are no longer exclusive to rational human agents but distributed across networks of relation (intra-actions, in Barad's terms) [120].

For Braidotti, posthuman ethics requires zoe-centric egalitarianism: affirming the vitality of all forms of life [176]. Moral worth arises not from cognitive similarity to humans but from participation in the shared zoe—the generative force of life itself.

Haraway's *Staying with the Trouble* radicalises this stance, urging humans to make kin—to form multispecies alliances rooted in care, reciprocity and co-becoming. Ethics thus becomes sym-poietic (collectively produced), grounded in the recognition that survival is collaborative, not competitive [138].

Such perspectives reject hierarchical moral scales in favour of ecological entanglement. Responsibility emerges as response-ability—the ability to respond within relational ecologies [76]. In this framework, moral progress is measured not by abstract justice but by the quality of interspecies coexistence. The apparent tension between posthumanist decentralisation and the continued emphasis on human responsibility can be resolved by distinguishing ontological decentring from normative agency. Posthumanist thought does not deny the existence of differential capacities; rather, it challenges the assumption that ontological difference justifies domination [18,138,176]. Within multispecies assemblages, humans remain uniquely positioned as large-scale ecological modifiers and institutional agents. Responsibility therefore emerges not from metaphysical superiority but from asymmetries of power, reflexivity and technological reach. Ethical decentralisation thus coexists with normative accountability: humans are not ontologically sovereign, yet they remain historically and materially consequential actors. This perspective reframes “human

responsibility” as a relational obligation grounded in entanglement and vulnerability rather than anthropocentric privilege.

6.7. Animism and Corporeal Compassion

Interestingly, many of these posthuman insights converge with animistic cosmologies long present in Indigenous and non-Western worldviews. In animism, as Bird-David [177] and Descola [116] explain, all beings—animals, plants, rivers, stones—are persons endowed with relational agency. Humans do not stand above but among them, bound by reciprocal obligations of respect and gratitude.

Modern ecological thought increasingly revisits these animistic ethics as a corrective to Western disenchantment. The recognition of corporeal compassion—ethical awareness grounded in the body’s affective resonance with other beings—bridges phenomenology and indigenous relationality [73,137].

Abram argues that moral understanding originates in sensuous engagement with the animate Earth: to breathe, see or touch is already to participate in a field of reciprocity [73]. Compassion, then, is not abstract benevolence but embodied attunement.

Such frameworks dissolve the hierarchy of mind over matter and re-enchant the moral imagination. They offer a cosmological ethics of kinship, where the well-being of humans and non-humans is inseparable—a vision increasingly echoed in contemporary environmental ethics [178].

6.8. Comparative Synthesis: Toward an Integrative Ethical Ecology

The diversity of ethical traditions reviewed here (Figure 2) points toward convergence around several key principles:

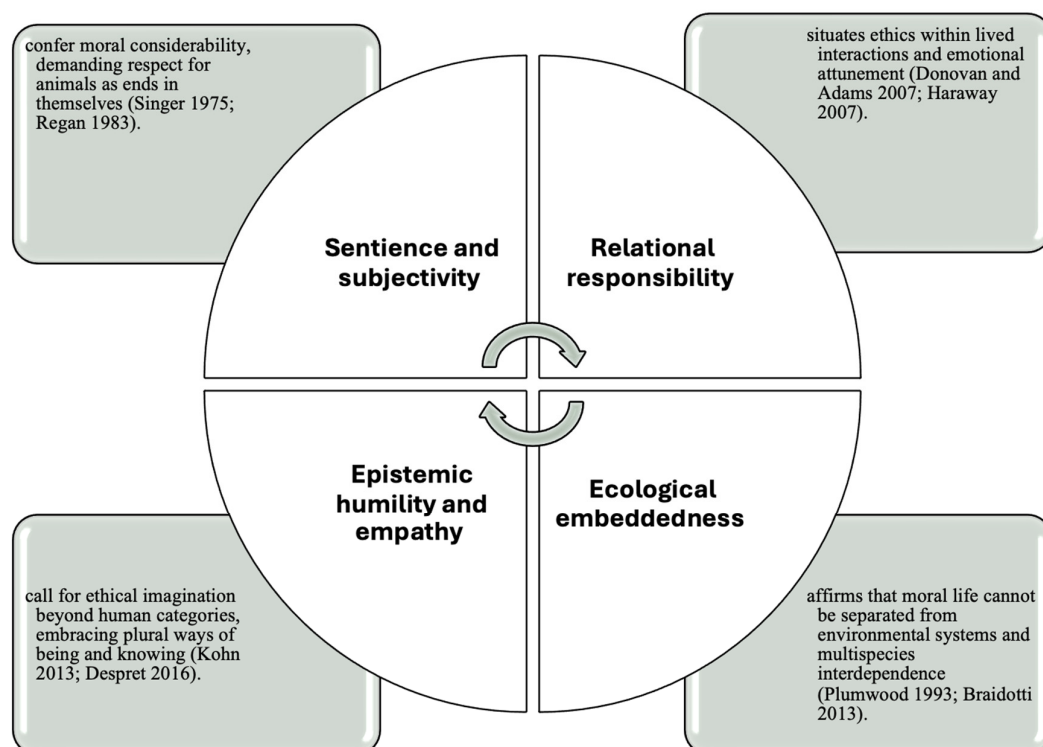


Figure 2. Toward an Integrative Ethical Ecology. Source: [11,12,17,76,137,169,172,176].

From this synthesis emerges a paradigm of ethical ecology—a holistic moral framework uniting care, justice, and ecological awareness. Within this paradigm, moral responsibility is not limited to avoiding harm but extends to cultivating flourishing across

species and ecosystems. At the level of human experience, similar dynamics of relational disruption have been analysed phenomenologically in accounts of existential boredom, understood not as mere under-stimulation but as a temporary suspension of meaningful horizons [179–181].

Relational ontology does not eliminate moral asymmetry; rather, it redefines its justification. If beings are co-constituted within ecological and social relations, ethical obligations arise from differential capacities to affect shared systems rather than from intrinsic hierarchies. Jonas's ethics of responsibility and contemporary care ethics both emphasise that vulnerability and power generate asymmetrical duties within relational networks [182,183]. Humans, as agents capable of large-scale institutional coordination, technological intervention and reflexive evaluation, bear expanded responsibilities precisely because they are embedded within the same relational field as other beings. Asymmetry thus reflects functional and historical positioning within networks of interdependence rather than ontological separation. Moral responsibility becomes a relational gradient grounded in power, foresight and the capacity to anticipate harm.

6.9. *The Future of Animal Ethics: From Recognition to Transformation*

Despite growing philosophical consensus, practical change remains uneven. Industrial animal agriculture, wildlife exploitation and habitat destruction persist at massive scales. Ethical recognition must therefore evolve into institutional transformation: legal frameworks, education, design and governance systems that embed multispecies justice [20,162].

Scholars increasingly call for integrative ethics combining empirical science, indigenous knowledge and participatory governance. The emerging field of One Welfare—linking human, animal and environmental well-being—embodies this shift [184].

Ultimately, moral responsibility toward non-human animals requires rethinking humanity itself. As we recognise animals as conscious, sentient and agentic beings, the moral question becomes not merely how we treat them but who we are among them (Figure 3).

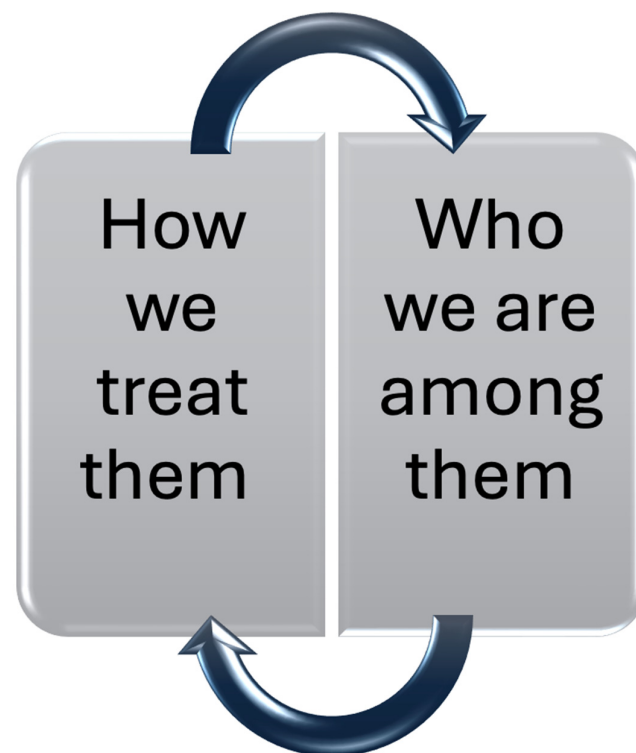


Figure 3. The moral question we have to ask.

This review does not argue for indiscriminate moral equivalence, but for differentiated forms of moral consideration grounded in relational context and human responsibility. Such differentiation preserves ethical prioritisation and decision-making, acknowledging the asymmetrical position humans occupy within multispecies moral frameworks.

7. Emerging Paradigms and Transformative Frameworks

The following perspectives extend relational ontology without abandoning earlier naturalistic distinctions.

7.1. Introduction: *The Crisis of Anthropocentrism and the Search for New Ontologies*

The twenty-first century has witnessed a growing recognition that anthropocentric paradigms—those that elevate human rationality and dominion—are inadequate to confront the ecological, ethical and epistemic challenges of our time [185,186]. Climate change, biodiversity collapse and the moral awakening regarding animal sentience all converge to expose the limits of human exceptionalism.

The intellectual shift toward posthumanism, new materialism and multispecies thinking represents not merely a philosophical evolution but a civilizational turning point. As Latour argues in *Facing Gaia*, the Earth itself is becoming a political actor, and humanity must rethink its role “not as master, but as participant in a planetary collective of life.” [185].

Within this ontological reorientation, three interlinked frameworks have gained traction: empathy, animism, and corporeal compassion. Each proposes a distinct yet complementary mode of understanding consciousness and moral relation—not as attributes confined to human cognition, but as relational, embodied, and co-created phenomena that traverse species boundaries.

7.2. *Empathy as an Evolutionary and Ethical Bridge*

Empathy has become a cornerstone of contemporary accounts of consciousness and moral relation. Far from being a uniquely human trait, empirical research in comparative psychology and neuroscience reveals deep evolutionary continuities in empathic capacities across species [187–189].

de Waal argues in *Mama’s Last Hug* that empathy is rooted in the mammalian capacity for emotional contagion—the spontaneous sharing of affective states [190]. From rodents who freeze at the distress of peers [191] to elephants consoling companions [192], evidence demonstrates that emotional intersubjectivity is evolutionarily ancient and socially adaptive.

This reframing of empathy as a biological continuum undermines the Cartesian partition between emotional animals and rational humans. It also expands the ethical domain: if empathy is embodied and distributed, then moral awareness itself emerges through intersubjective resonance.

Stein’s phenomenological analysis already anticipated this view, defining empathy (*Einfühlung*) as a “perceptive act through which the foreign consciousness becomes present in one’s own.” [193]. In contemporary cognitive science, this notion finds echoes in mirror neuron theory, which locates empathy in shared neural circuits for perception and action [194].

Ethically, empathy becomes not a sentiment but an epistemology—a way of knowing through affective attunement. Nussbaum frames empathy as “a civic emotion,” a capacity that expands moral concern beyond self-interest, fostering the recognition of animals as fellow subjects of a shared moral world [162].

This paradigm encourages a reconceptualization of consciousness as intersubjective and embodied, not isolated within the human mind but distributed across living networks.

As Varela et al. proposed in *The Embodied Mind*, cognition arises through the dynamic coupling of organism and environment—a principle equally applicable to non-human forms of awareness [195].

7.3. *Animism Revisited: Ontological Pluralism and Relational Personhood*

While empathy bridges biological continuity, animism challenges ontological exclusivity. Far from a “primitive belief,” as colonial anthropology once claimed, animism is increasingly recognised as a sophisticated relational ontology that attributes agency, interiority, and communicative presence to non-human entities [116,177,196].

Descola in *Beyond Nature and Culture*, identifies animism as one of four ontological modes through which societies conceptualise relationships between humans and non-humans [116]. Unlike the naturalist ontology dominant in the West—which posits shared physicality but distinct interiorities—animism assumes shared subjectivity but distinct material embodiments.

This ontological pluralism dissolves the hierarchy of consciousness. To say that a river, a fox, or a mountain is a person is not metaphorical, but a recognition of relational agency and intentionality. Kohn in *How Forests Think*, extends this logic, arguing that semiotic processes—the making and interpretation of signs—pervade non-human life, thus granting forests, animals and ecosystems thinking capacities in their own right [137]. Legal and ethical expansions that attribute person-like status to rivers, forests, or ecosystems raise complex conceptual questions. If entities with radically different modes of organization are granted analogous moral standing, conflicts between non-human “persons” become difficult to adjudicate without reintroducing hierarchical criteria. A shifting river course may damage a forest; predation benefits one organism while harming another. These tensions highlight the need for clearer ontological and normative frameworks capable of mediating conflicts without collapsing into undifferentiated moral relativism. Acknowledging such difficulties does not invalidate multispecies ethics but underscores the importance of conceptual rigor in extending moral community [48].

In this view, consciousness is not a private mental property but a relational field of meaning sustained through interactions. As Bird-David puts it, animism is “a way of knowing the world relationally, through responsive engagement rather than objectification.” [177].

The ethical implications are profound: if all beings are persons-in-relation, then respect and reciprocity become foundational moral principles. Modern environmental movements increasingly reflect this worldview—from the recognition of legal personhood for rivers and ecosystems in New Zealand and Ecuador [152] to the rise of rights of nature jurisprudence grounded in indigenous cosmologies [153].

Through this lens, animism is not a return to premodern mysticism but a post-anthropocentric epistemology—a reimagining of consciousness as ecological communion rather than cognitive isolation.

7.4. *Corporeal Compassion: The Ethics of Embodied Interconnection*

If empathy bridges affective continuity and animism redefines ontological boundaries, corporeal compassion grounds both in the lived, sensory experience of embodiment.

In this framework, empathy should be understood primarily as a normative–affective starting point for moral attention, rather than as scientific evidence about animal minds.

Empathy, while ethically generative, cannot serve as epistemic evidence for the attribution of specific mental states. As critics have noted, empathic projection is susceptible to anthropomorphic distortion [99,197]. Its philosophical role must therefore be carefully delimited. Empathy functions primarily as a motivational and attentional orientation—it

sensitizes agents to the possibility of morally relevant experience—rather than as justificatory proof of its content. Normative claims concerning animal interests must ultimately rest on converging behavioural, neurological and evolutionary evidence [72,86], not on affective resonance alone. Properly constrained, empathy supports ethical responsiveness without collapsing into projection.

Following classical phenomenological accounts, empathy involves an embodied, imaginative access to another's affective situation that can motivate care and responsibility [193]. As such, empathy orients ethical perception—it makes suffering visible, salient, and urgent—but it does not, by itself, settle factual questions about the nature or structure of animal consciousness. Treating empathy as an evidential foundation would risk anthropomorphic projection, especially given the likely diversity of experiential architectures across species [64]. For this reason, empathy must be conceived as a motivational and interpretative resource that opens a space of concern, which then requires empirical triangulation through ethology, comparative cognition, and affective neuroscience [7,95]. In short, empathy initiates moral responsiveness, but credible claims about animal experience depend on converging behavioural, neurobiological, and evolutionary evidence.

This emerging framework—influenced by phenomenology, affect theory, and animal studies—situates moral awareness in the visceral, pre-reflective dimensions of bodily encounter [73,76,198–200].

Abram, in *The Spell of the Sensuous*, argues that the body is the primary site of ethical knowing: through breath, movement and perception, humans participate in a shared sensorium of life [73]. To perceive another being—whether a bird's flight or a dog's gaze—is already to engage in a form of corporeal empathy, an ethical recognition preceding cognition.

Building on Merleau-Ponty's *Phenomenology of Perception*, this view holds that the body is not an object among others but a living openness to the world. Moral understanding thus emerges through intercorporeality—the intertwining of sentient bodies in shared space [66]. Read in this light, Despret's "ethology of attention" gains additional robustness when articulated with empirical research on interspecies affect. Studies of consolation, prosocial behaviour, and emotional contagion in mammals and birds suggest that some forms of shared affect are grounded in conserved neurobiological mechanisms rather than mere anthropomorphic interpretation [95]. Similarly, ethological work on behavioural flexibility, attentional responsiveness, and social learning provides operational indicators of affective integration that can complement phenomenological descriptions of intercorporeality [7]. Rather than opposing empathy to science, this approach integrates them: empathic attunement guides what we attend to, while empirical methods refine what we are justified in claiming about animal experience.

Despret elaborates this into an "ethology of attention," arguing that animals and humans co-create each other's subjectivities through gestures, affective responses, and mutual interpretation [76]. Compassion, then, is not an abstract moral virtue but a corporeal practice of response—a dance of reciprocal becoming.

This corporeal account of compassion should therefore be distinguished from a purely introspective or sentimental approach to animal ethics. While empathic attunement can disclose ethically significant aspects of interspecies encounter, it remains epistemically fallible and culturally mediated. Humans may misread or overinterpret animal signals, projecting familiar emotions onto organisms whose affective organisation may differ from our own. Consequently, empathy functions best as a heuristic of care rather than a criterion of truth. Its ethical force lies in cultivating sensitivity and responsiveness, but its epistemic reliability must be supported by systematic empirical methods, including detailed behavioural

observation, welfare science, and comparative neuroscience capable of identifying conserved affective circuits across taxa [71,95].

This corporeal compassion resonates with eco-phenomenological approaches that view ethical awareness as inseparable from ecological embodiment. For instance, Csordas describes embodiment as the “existential ground of culture and self,” implying that ethical transformation requires re-inhabiting the body as a site of connection, not control [201].

Practically, this framework underpins new forms of multispecies engagement: animal-assisted therapy, ecological art, and embodied conservation practices that cultivate sensuous empathy and kinship. In animal-assisted psychotherapy, for example, healing often emerges not through symbolic interpretation but through tactile, bodily synchrony between human and animal—a lived manifestation of corporeal compassion [202].

In a world increasingly mediated by technology and abstraction, corporeal compassion reclaims the body as a locus of moral imagination. It invites a return to what Abram calls the “reciprocal participation in the animate Earth.” [73].

7.5. *Toward an Integrative Paradigm: Empathy, Animism and Corporeality*

Within an integrative paradigm, the role of empathy can be clarified by distinguishing normative from ontological levels of analysis. At the normative level, empathy operates as a primary affective disposition that motivates care, responsibility, and attentiveness toward other beings. At the ontological and epistemic levels, however, claims about animal consciousness require independent support from converging empirical methods in ethology, neuroscience, and comparative cognition. This dual strategy avoids both reductionism (which would collapse ethics into data) and sentimentalism (which would substitute feeling for evidence), while preserving empathy as an indispensable component of multispecies ethics.

A possible reconciliation between relational ontologies of consciousness and claims of categorical human distinctiveness lies in adopting a non-reductive pluralism of levels. Relational and processual accounts describe the ontological continuity of living systems and the ecological embeddedness of cognition, whereas accounts of human uniqueness operate at the level of normative organisation rather than metaphysical separation. On this view, relational ontology concerns the conditions of emergence shared across species, while categorical distinctions describe forms of reflexive normativity that arise within that shared ontological field. Philosophical anthropology and enactivist approaches have increasingly emphasised that differences in symbolic mediation, cumulative culture and answerability within the “space of reasons” do not negate ontological continuity but specify organisational thresholds within it [8,21,54,59]. The resulting position is neither dualistic nor homogenising: continuity explains how capacities emerge, whereas categorical distinctions describe how certain systems become normatively self-interpreting. Consequently, relational ontology and human distinctiveness can be understood as complementary explanatory layers rather than competing metaphysical claims.

Ontological Continuity and Normative Thresholds

The perspectives discussed in this section extend earlier relational and naturalistic accounts rather than replacing them with strong metaphysical claims. Concepts such as animism, ecological empathy and corporeal relationality are therefore introduced primarily as interpretative and phenomenological frameworks that illuminate modes of human–animal engagement. They should not be read as ontological theses in competition with empirical science, but as complementary lenses that explore experiential and ethical dimensions emerging from already established biological and cognitive continuities.

Taken together, these frameworks converge in a transformative paradigm of consciousness and animality (Figure 4) that transcends disciplinary and ontological divisions.

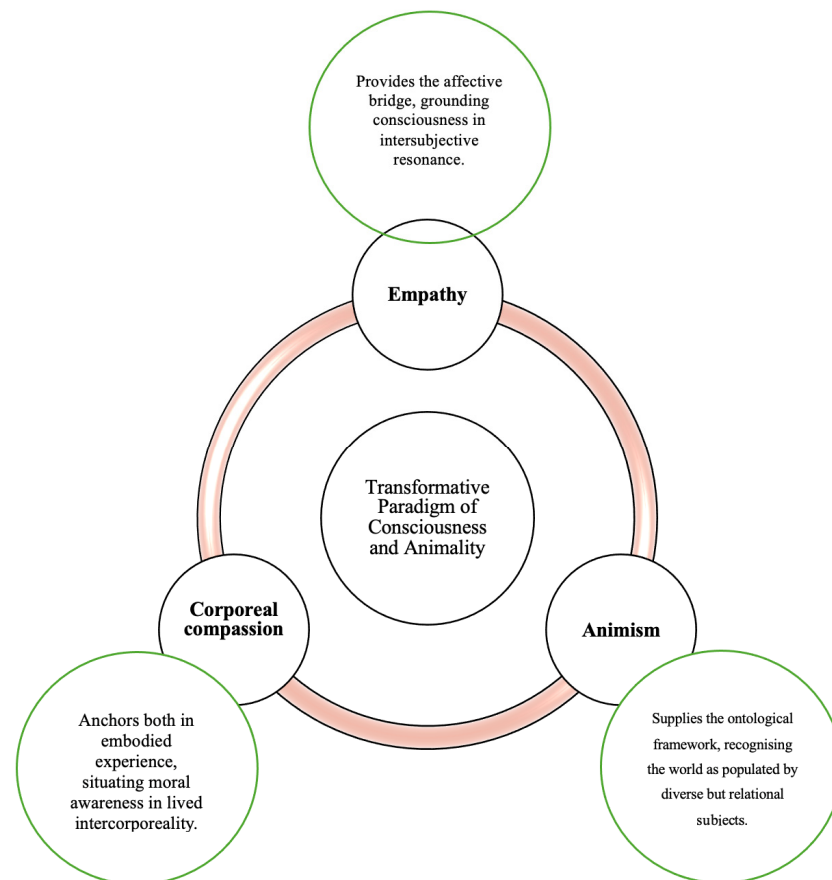


Figure 4. Transformative Paradigm of Consciousness and Animality.

This triadic model dismantles the dualisms that have long structured Western thought—mind/body, human/animal, subject/object. In their place, it proposes a continuum of consciousness, where awareness, agency and meaning emerge through relational entanglement rather than categorical distinction.

Philosophically, it aligns with enactivist cognitive science [203], process ontology [204] and posthuman ethics [176]. Each affirms that life is not a collection of discrete beings but an unfolding field of interrelations—an ontology of becoming-with.

Ethically, this paradigm shifts the moral question from “Do animals have consciousness?” to “How can consciousness itself be understood as relational, ecological and compassionate?”. The answer lies in cultivating modes of being that honour empathy as cognition, animism as ontology, and corporeality as ethics.

In practical terms, such a shift informs education, policy and interspecies coexistence. It redefines humanity’s role not as steward of passive nature but as participant in the co-creation of living worlds. As Haraway insists, we must “stay with the trouble”—remaining present to the messy, embodied, multispecies realities that constitute ethical life [138].

The appeal to normative thresholds does not presuppose prior moral hierarchy; rather, it identifies structural features of agency—such as reflexive self-regulation and collective rule formation—that generate justificatory exposure. Responsibility here is not assumed but emerges from the architecture of coordinated agency itself.

These considerations prepare the ground for a more explicit stratified articulation of consciousness and normative responsibility developed in the following section.

7.6. Conclusion: Transforming Consciousness, Redefining Humanity

These emerging paradigms signal a broader transformation of consciousness—one that challenges anthropocentric epistemologies and reclaims interconnection as the foundation of moral and cognitive life.

Empathy, animism and corporeal compassion together illuminate a post-dualist vision of consciousness as relational vitality: the ceaseless exchange of perception, emotion and meaning across the porous boundaries of species and matter.

In embracing these frameworks, humanity may begin to redefine its place not as ruler of the natural world but as kin within it—an ethical and ontological shift necessary for the survival of both human and non-human life in the Anthropocene.

As Bennett reminds us in *Vibrant Matter*, “we are vital materiality, and so are the animals, plants, metals and winds.” [147]. Recognising this shared vitality is not only an act of humility but the precondition of a liveable future.

7.7. Toward a Stratified Relational Responsibility Model of Consciousness and Human–Animal Difference

As clarified in Section Ontological Continuity and Normative Thresholds, ontological continuity across living systems does not exclude the emergence of organisational thresholds that transform the normative structure of agency. Building on that foundation, this section articulates a more explicit architecture capable of integrating evolutionary continuity with differentiated responsibility, without collapsing into either reductive gradualism or metaphysical exceptionalism.

What emerges from this integrative analysis may be described as a Stratified Relational Responsibility Model (SRRM) of consciousness and human–animal difference.

The SRRM begins from a naturalistic premise: consciousness is not an all-or-nothing property, nor a homogeneous substance, but a multidimensional and processual phenomenon expressed in graded forms across species. Empirical and philosophical accounts converge in rejecting sharp ontological ruptures between humans and other animals. Sentience, affective valence, perception, and goal-directed agency display evolutionary continuity. This continuity grounds shared moral considerability.

Yet continuity does not entail uniformity of organisation. Within the same ontological field, forms of consciousness exhibit increasing structural complexity. At basal levels, conscious life may involve affective responsiveness and environmental attunement. At more complex levels, it includes flexible learning, social coordination, and proto-normative sensitivity. In humans, however, a further transformation becomes salient: the capacity for explicit normative articulation, discursive justification, and institutional stabilisation of shared commitments.

This transformation does not introduce a metaphysical rupture. Rather, it reorganises earlier layers of cognition within a reflexively accessible normative space. Humans are not exempt from biological continuity; they are participants in it whose agency has become self-interpreting. What is distinctive is not the possession of experience as such, but the emergence of agents for whom norms themselves can become objects of reflection, revision, and collective institutionalisation.

The SRRM therefore distinguishes levels of organisational structure without positing separate ontological realms. Stratification concerns modes of normative responsiveness, not degrees of intrinsic worth.

The stratification proposed here is functional and organisational rather than metaphysical. It refers to differences in structural integration, reflexive accessibility, and institutional scalability of normative capacities, not to discrete substances or ontological tiers. Levels are analytically distinguishable but dynamically continuous.

The ethical significance of this differentiation lies in responsibility rather than superiority. Precisely because humans can anticipate long-term consequences, coordinate large-scale institutions, and exercise technologically amplified power, they occupy asymmetrical positions within multispecies systems.

Ethical asymmetry, on this account, reflects functional and historical positioning within relational networks, not axiological hierarchy. Greater reflexive capacity generates greater justificatory burden. The question is not whether humans are “more valuable,” but how beings capable of explicit norm formation ought to exercise power within shared ecological worlds.

Importantly, the model does not assume that reflexive normativity is uniquely human in principle, nor that its presence is uniform across all human agents. Rather, asymmetry is assessed relative to empirically observable capacities for large-scale coordination and anticipatory impact. The framework therefore remains open to revision should comparable capacities emerge in other species or artificial systems.

The SRRM thus avoids two persistent distortions in contemporary debates. Strong egalitarian continuity models risk flattening structurally relevant differences in agency and institutional impact. Conversely, exceptionalist accounts risk reintroducing hierarchical metaphysics under secular vocabulary. By contrast, stratification within relational continuity preserves both shared moral standing and differentiated obligation.

This architecture also clarifies the normative stakes of relational ontologies. To affirm that beings are co-constituted within ecological systems does not dissolve asymmetry; it contextualises it. Interdependence intensifies responsibility where power concentrates. Human distinctiveness, understood naturalistically, does not mark separation from nature but a complexification of relational embeddedness.

Several implications follow.

First, precautionary reasoning is warranted under conditions of epistemic uncertainty regarding animal consciousness. Where credible indicators of sentience exist, moral consideration cannot be deferred pending absolute proof.

Second, responsibility must be analysed structurally rather than sentimentally. Institutional systems—agriculture, research, technological development, environmental governance—are products of reflexive coordination and therefore fall within the justificatory horizon of agents capable of explicit norm formation.

Third, empathy and affective attunement, while motivationally indispensable, require discursive articulation and institutional embodiment in order to generate stable ethical commitments. The transition from recognition to responsibility marks the defining threshold within the SRRM.

Ultimately, the Stratified Relational Responsibility Model provides the conceptual architecture for the symbiotic humanist orientation defended in this review. Ontological continuity grounds shared vulnerability and moral considerability. Structural differentiation grounds asymmetrical responsibility. Ethical legitimacy depends on how such asymmetry is justified, constrained, and institutionalised.

In this sense, consciousness unfolds along a continuum of relational organisation, yet certain configurations introduce new modes of accountability. These modes do not elevate humans above other forms of life; they situate humans as reflexive participants within shared ecological systems whose distinctive capacities intensify, rather than diminish, their obligations.

8. Emerging Technological, Speculative and Contested Frontiers in Contemporary Consciousness Debates

8.1. Technological Mediation and the Expansion of Observational Horizons

Recent advances in artificial intelligence, machine learning and computational ethology have significantly transformed research practices in animal cognition and communication. Machine learning models applied to bioacoustic datasets and behavioural sequences have enabled the detection of complex structural patterns in cetacean vocalisations, avian song and primate communication [205–207]. These developments expand empirical observation but do not grant direct epistemic access to subjective experience.

As Leonelli argues in her analysis of data-centric biology, digital infrastructures reshape scientific reasoning through modelling and data curation practices [208]. Similarly, Floridi et al. emphasise that algorithmic systems embed normative assumptions that influence interpretation [209]. Artificial intelligence therefore transforms observational mediation rather than revealing consciousness itself, requiring philosophical caution in the interpretation of behavioural complexity.

8.2. Algorithmic Mediation, Translation and Anthropomorphic Projection

Algorithmic analysis introduces new forms of epistemic mediation that reshape how agency and communication are conceptualised across species. As Gillespie notes, algorithmic systems are socio-technical constructs shaped by design decisions and interpretative frameworks [210]. Philosophers of technology such as Ihde [211] and Verbeek [212] have shown that instruments transform perception rather than merely extending it.

In computational ethology, structural complexity identified through AI does not necessarily imply semantic meaning or conscious awareness. Critical philosophical analysis remains essential to differentiate behavioural description, functional interpretation and claims concerning subjective experience.

8.3. Boundary Debates Beyond Neural Minds: Plants, Distributed Systems and Minimal Cognition

Research into plant signalling, adaptive plasticity and distributed regulatory processes has prompted discussions concerning “minimal cognition” or “basal intelligence” [213–215]. While these debates challenge strict neurocentric models, critics warn against extending the vocabulary of consciousness without empirical justification [216,217].

Philosophically, these discussions function as boundary cases that illuminate conceptual tensions in attributing agency and awareness across biological systems. They resonate with earlier phenomenological and biological reflections on embodiment and organism–environment relations [79,80], while underscoring the importance of maintaining conceptual clarity regarding subjective experience.

8.4. Non-Local Consciousness Hypotheses and Contested Scientific Explorations

Throughout the twentieth century, certain scientific and parascientific traditions proposed models of consciousness extending beyond strictly local neural processes. Early parapsychological research programmes investigated anomalous cognition and extrasensory perception within experimental frameworks [218,219]. Although controversial and widely debated, such research illustrates persistent attempts to explore non-local or extended models of mind.

Philosophical discussions concerning extended cognition and distributed information processing [220] also contributed to broader debates regarding the boundaries of mental processes, though these frameworks remain conceptually distinct from claims of non-local awareness. More speculative proposals invoking informational or cosmological

models of consciousness have appeared in interdisciplinary literature, often combining metaphorical and scientific language [221]. Within mainstream philosophy of mind and neuroscience, however, empirical support for non-local consciousness remains highly contested, and these models are generally regarded as speculative hypotheses rather than established theories.

8.5. *Cultural Imaginaries, Cold War Research Contexts and the Technoscientific Imagination*

Historical analysis demonstrates that speculative theories of perception and consciousness occasionally intersected with governmental and military research environments, particularly during periods of geopolitical tension. During the Cold War, programmes exploring altered perception and anomalous cognition emerged within broader cultural fascinations with expanded awareness and human potential. Declassified documents often cited in public discourse—including materials associated with the so-called “Gateway Process” [222] are best interpreted as artefacts within the cultural history of technoscientific imagination rather than empirically validated contributions to contemporary neuroscience.

Scholars in the sociology of science emphasise that such episodes reflect how political anxieties, technological optimism and existential concerns shape public narratives about consciousness [223,224]. Analysing these materials as historical and cultural phenomena allows philosophical inquiry into how scientific authority and speculative imagination intersect without conflating speculative discourse with validated empirical research.

8.6. *Cosmological and Vibrational Metaphors in Contemporary Consciousness Discourse*

Contemporary discussions of consciousness frequently employ cosmological or vibrational metaphors inspired by physics, information theory and network science. These metaphors appear in both scientific speculation and popular discourse, often framing consciousness as a field-like or relational phenomenon. While such language may stimulate conceptual reflection, scholars caution that metaphorical models risk being interpreted as literal ontological claims when detached from empirical grounding [225,226].

From a philosophical perspective, these cosmological metaphors reveal how societies negotiate technological change and existential uncertainty through symbolic narratives. Their primary value lies in stimulating reflection on interconnectedness and relational ontology rather than providing empirically confirmed models of mind.

8.7. *Epistemic Pluralism and Methodological Boundaries*

The coexistence of empirical research, philosophical theorisation and speculative cultural narratives highlights the need for epistemic pluralism combined with methodological clarity. Consciousness studies has historically evolved through interdisciplinary exchange across neuroscience, philosophy, psychology and anthropology [83,227]. Recognising multiple layers of discourse allows emerging ideas to be examined critically while preserving distinctions between empirical evidence, conceptual argument and speculative imagination.

Within this pluralistic framework, technological mediation and speculative discourses expand the intellectual landscape of consciousness studies without replacing established empirical approaches. Their philosophical significance lies in revealing how evolving technological, cultural and existential contexts reshape the questions through which mind, agency and interspecies relations are explored.

Epistemic pluralism does not entail normative relativism. Distinguishing between epistemic openness and ethical commitment allows interdisciplinary inquiry to remain methodologically inclusive while still supporting robust normative conclusions. Philosophical pragmatism and reflective equilibrium approaches suggest that ethical norms can emerge from convergent lines of empirical evidence, phenomenological insight and

moral reasoning without requiring a single foundational epistemology [228–230]. Within consciousness studies and animal ethics, pluralism expands the range of interpretative frameworks, whereas normativity arises from shared recognitions of vulnerability, sentience and relational impact. In this sense, pluralism operates as a methodological condition of inquiry, while normative synthesis reflects an ethical judgement formed through critical integration rather than epistemic absolutism.

9. Conclusions and Future Directions

The future directions discussed below should be read against the comparative frameworks outlined in Tables 1 and 3, which illustrate both the ethical promise and the unresolved conceptual challenges of contemporary approaches to animal consciousness.

9.1. Rethinking Consciousness and Animality: From Dualism to Relational Ontology

The conceptual journey traced throughout this review reveals a profound transformation in how consciousness, animality, and moral relation are conceived. The long-dominant Cartesian and anthropocentric paradigms—which located consciousness in the disembodied human mind and relegated animals to the realm of instinct or mechanism—are increasingly untenable in light of empirical, philosophical, and ethical developments [116,162,190].

Across the disciplines of philosophy, neuroscience, ethology, and environmental humanities, a relational ontology of consciousness is emerging. In this view, consciousness is not a substance or property but an ecological process—a dynamic interplay of perception, affect, and responsiveness that transcends species boundaries [137,138,203].

This shift has deep moral implications. If consciousness is distributed and relational, moral responsibility cannot be confined to the human domain. Instead, it must extend to the more-than-human community of life, acknowledging animals, ecosystems, and even material entities as participants in shared processes of sentience and agency [147,186].

By rethinking consciousness through empathy, animism, and corporeal compassion, this review has sought to articulate a post-anthropocentric ethics—one that replaces domination and detachment with relational care, humility, and reciprocity.

9.2. Ethical Implications: From Recognition to Transformation

The ethical frameworks explored—utilitarian, deontological, care-based, ecofeminist, and posthuman—converge around a single imperative: to reconceive humanity's moral standing within the web of life. Yet recognition alone is insufficient; it must lead to transformative praxis.

At the institutional level, this entails embedding multispecies ethics into law, policy, and education.

Rather than assuming perfect reciprocity across species, future governance should operationalize differentiated responsibility: humans, as the dominant ecological agents, bear primary duties to prevent unnecessary harm, restore habitats, and create institutional mechanisms that represent non-human interests through guardians, ecological trusts, and participatory science [152,153]. Such frameworks translate relational ideals into practicable policies without collapsing into either anthropocentric domination or unworkable moral symmetry.

Legal innovations such as the granting of personhood to rivers, forests, and non-human animals signal a nascent redefinition of moral community [152,153]. Educational curricula that incorporate ecological empathy and embodied learning can cultivate relational awareness from early life [231]. Expanding legal personhood beyond the human raises legitimate concerns regarding normative conflict and prioritization. If rivers, forests, livestock, predators, and human communities all possess morally considerable interests,

how should conflicts be adjudicated? Critics argue that indiscriminate recognition risks collapsing deliberative hierarchies into incoherence [77].

However, moral considerability does not entail equal normative weight. As Williams observes, asymmetry is structurally inherent in human–animal relations [48]. The ethical question is not whether animals participate in reciprocal lawmaking, but how beings endowed with reflective agency ought to exercise their power. Recognition of non-human interests introduces justificatory demands rather than automatic priority.

Korsgaard clarifies this distinction further. Animals are not co-legislators within the moral community, yet they possess a good of their own that rational agents are bound to respect [23]. Moral standing, therefore, need not be grounded in reciprocity. The extension of legal consideration functions not as ontological leveling but as institutionalized acknowledgment of vulnerability and dependence.

Normative expansion thus requires procedural refinement rather than egalitarian flattening. Ethical pluralism must be structured, not indiscriminate.

At the interpersonal level, empathy and corporeal compassion can reshape everyday encounters with animals—from domestic companionship and therapeutic practice to wildlife conservation. As Despret [76] and Haraway [138] emphasise, ethical life unfolds not in abstract principles but in the responsiveness of embodied relation—in the gestures, affects, and shared worlds we co-create with other beings.

Ultimately, ethical transformation requires moving from recognition to participation: from seeing animals as moral subjects to living among them as co-constituents of consciousness and meaning. This participatory ethic aligns with the growing movement toward One Health and One Welfare paradigms, which integrate human, animal, and environmental well-being within a single framework of interdependence [184].

9.3. Future Research Directions

This review opens several promising avenues (Figure 5) for future inquiry across disciplines:



Figure 5. Future Research Directions. Source: [20,102,116,177,185,190,195,196,198–200,202].

Such directions reaffirm that rethinking consciousness is not merely a philosophical endeavour but a moral and existential necessity. In the words of Thompson, to study consciousness is “to study life itself, in its embodied and relational unfolding.” [203].

9.4. Criticisms and Counter-Arguments: Navigating Relativism, Practicality, and Ethical Asymmetry

Although innovations such as personhood for non-human entities [152,153] signal a nascent redefinition of the moral community, they face substantial criticisms for potential absurdities and relativism. What does it mean to treat a forest or river as a person? In conflicts—for example, a river changing course and threatening a forest—whose “interests” take precedence? Finlayson [77], in her joint review of Peter Singer’s *Animal Liberation Now* and Martha Nussbaum’s *Justice for Animals* in the *London Review of Books*, highlights impracticable consequences: extending rights to rodents, insects, or cats with a penchant for catching birds leads to absurd dilemmas, such as prohibiting cats from hunting or humans from controlling pests. Finlayson argues that such extensions, however well-intentioned, risk resulting in a particularly disorienting form of relativism, where ethical priorities dissolve into paralysing inaction. Nussbaum responds by proposing a capabilities approach that prioritises species-specific flourishing without descending into nihilism [162], yet Finlayson critiques this as insufficient to resolve real-world trade-offs.

This critique echoes perspectives that emphasise asymmetry in human–animal relations. Williams [48] and Korsgaard [23], as discussed earlier, contend that ethical duties presuppose ontological differences: reciprocity is impossible with animals, rendering relations inherently asymmetrical.

The asymmetry thesis advanced by Williams [48] and developed in a different register by Korsgaard [23] poses a substantive challenge to any ethical model that presupposes full reciprocity across species. If their position is correct, moral community cannot be grounded in symmetrical participation in norm-creation, nor in the expectation of mutual recognition. Crucially, however, the rejection of symmetrical reciprocity does not entail the reinstatement of anthropocentric hierarchy. Rather, it compels a reformulation of moral standing in terms of differentiated responsibility. Humans may occupy a distinctive normative position—not by virtue of metaphysical superiority, but because of their reflective capacities and institutional power. What follows, therefore, is not a defence of interspecies equivalence, but of asymmetrical obligation grounded in shared sentience and unequal agency.

Schopenhauer reinforces this: animals possess sentience and representational consciousness, yet lack the rationality and self-reflection that distinguish humans, making human compassion the ethical foundation without equality [63]. Jonas extends duties to animal sentience, deriving them from vital vulnerability, but modulates them according to uniquely human responsibilities [80].

Non-Anglophone literature enriches the discussion: Buytendijk pioneered animal psychology by emphasising intentional behaviours without reductionism [232]; Plessner theorises animal consciousness as embodied (Leib), influencing Merleau-Ponty, where the human mind is ex-centric and distinct from animal centrality [79].

This synthesis avoids relativism by proposing relational pragmatism: multispecies laws should incorporate ethical trade-offs, as in ecofeminism [74], replacing domination with dialogical negotiation. Thus, the position outlined is neither “nebulous” nor merely “piously edifying”, but a critical, viable transformation that acknowledges genuine challenges without lapsing into nihilism.

9.5. Final Reflections: Toward a Symbiotic Humanism

The reconfiguration of consciousness and animality invites a redefinition of humanity itself—not as sovereign intellect but as symbiotic participant within the continuum of life.

This proposal does not entail normative relativism or the erasure of evaluative distinctions. Rather, it calls for expanding the scope of moral concern while retaining the conceptual resources necessary to adjudicate conflicts of interest.

Symbiotic humanism should not be interpreted as a return to classical humanism nor as a contradiction of posthumanist critique. Instead, it represents a relational humanism grounded in ontological continuity and ecological interdependence. While posthumanist thought effectively destabilises metaphysical hierarchies, symbiotic humanism emphasises that humans remain historically situated agents with disproportionate technological, institutional and ecological influence. Its normative claims therefore derive not from ontological superiority but from relational embeddedness and asymmetries of power within multispecies systems.

Ethical asymmetry in this framework reflects differences in systemic impact, technological power, and reflexive coordination rather than ontological hierarchy or intrinsic superiority.

This emerging symbiotic humanism rejects both human exceptionalism and nihilistic relativism, affirming instead a compassionate realism grounded in interdependence and respect.

To avoid sliding into normative indeterminacy, multispecies ethics requires principled criteria for adjudicating interspecies conflicts. At minimum, three considerations should guide deliberation (Figure 6): (1) degree of sentience and capacity for suffering [12,75], (2) vulnerability to irreversible harm [233], and (3) asymmetry of power and institutional agency [23]. These criteria introduce normative ordering without reinstating metaphysical hierarchy. They acknowledge morally relevant differences while rejecting the assumption that species membership alone determines priority. Ethical pluralism, on this view, is structured rather than indiscriminate.

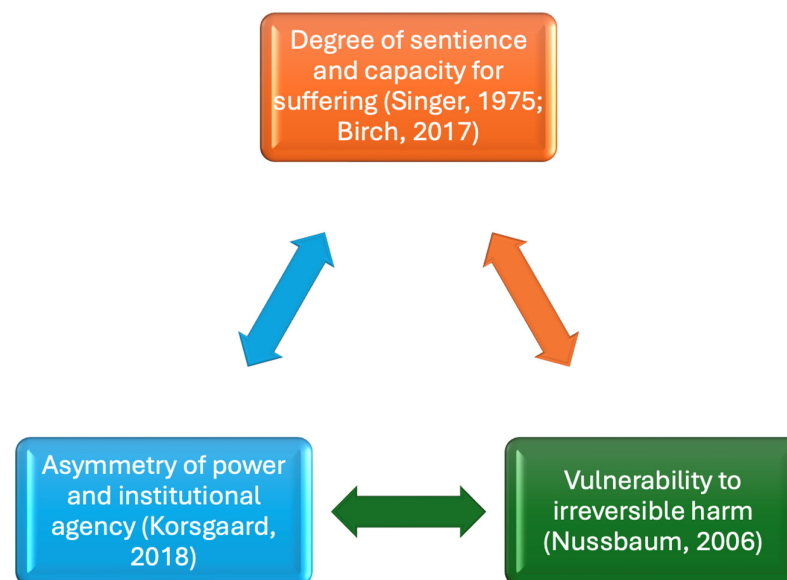


Figure 6. Principled criteria for adjudicating interspecies conflicts. Source: [12,23,75,233].

As the comparative overview in Table 1 indicates, advancing animal ethics does not require the erasure of human distinctiveness, but rather a careful negotiation between continuity, asymmetry, and relational responsibility.

The brief engagement with non-Western and Indigenous relational ontologies underscores that prevailing Western debates about animal consciousness and moral standing are not philosophically inevitable. Alternative traditions demonstrate that ethical concern for animals can be grounded in relationality, vulnerability, and responsibility rather than

cognitive similarity. Recognising these perspectives does not resolve ongoing disputes, but it expands the conceptual space within which such disputes can be meaningfully addressed.

Table 3 synthesises the central conclusions of the present review by integrating insights from Western philosophical traditions, contemporary philosophy of mind, and non-Western relational ontologies. Across these diverse frameworks, a convergent picture emerges in which animal consciousness is best understood as graded, multidimensional, and embedded within relational and ecological contexts rather than as a binary property defined by human-specific capacities [8,64,86].

Ethical considerability, on this account, is grounded less in cognitive resemblance to humans than in shared vulnerability, sentience, and the asymmetrical responsibilities generated by human power over other forms of life [23,182]. Importantly, engagement with non-Western traditions highlights that hierarchical and trait-based moral models are not philosophically inevitable, but culturally contingent, and that alternative ethical orientations centred on relationality and non-domination are both conceptually coherent and normatively compelling [110,113,117].

Taken together, these conclusions support a pluralistic and precautionary ethical stance toward animals, one that acknowledges epistemic uncertainty while resisting sceptical paralysis or reductive anthropocentrism [3,86].

Table 3. Integrative Synthesis of Philosophical Conclusions on Animal Consciousness and Moral Status.

Dimension	Consolidated Conclusion	Philosophical Sources
Ontological Status of Animals	Animals are best understood as relationally embedded beings rather than isolated entities defined by discrete traits. Ontological hierarchy is neither inevitable nor conceptually necessary.	[66,108,116]
Consciousness	Consciousness is a multidimensional, graded, and processual phenomenon. No single criterion (e.g., language, self-reflection) is sufficient for attribution across species.	[55,64,70,86]
Moral Considerability	Moral considerability does not depend on human-like cognition but on sentience, vulnerability, and relational impact.	[63,110,112,182]
Ethical Asymmetry	Ethical responsibility is asymmetrical: humans bear greater obligations due to power, knowledge, and capacity to harm, not due to moral superiority.	[23,118,182]
Limits of Anthropocentrism	Strong anthropocentrism obscures both empirical evidence and ethical responsibility, but weak or asymmetrical anthropocentrism remains defensible.	[5,23,48]
Role of Non-Western Traditions	Non-Western traditions reveal alternative ethical foundations grounded in relationality, continuity, and non-domination rather than trait-based hierarchy.	[110,113,117]
Normative Uncertainty	Ethical decisions concerning animals must often proceed under uncertainty, justifying precautionary and pluralistic approaches.	[3,70,75]
Methodological Implication	Interdisciplinary and pluralistic methodologies are required; no single philosophical or scientific framework is sufficient.	[55,109]

Source: [3,5,8,23,48,55,64,66,70,75,86,108–110,112,113,116–118,182].

While Table 3 consolidates the principal ontological, epistemological, and ethical convergences identified in this review, contemporary debates in animal ethics remain structured by distinct normative frameworks that differ in their justificatory principles and institutional implications. In order to clarify these divergences and to situate the proposed symbiotic humanist orientation within the broader theoretical landscape, Table 4 presents a comparative overview of major normative models in contemporary animal ethics.

Table 4. Comparative Normative Models in Contemporary Animal Ethics.

Normative Model	Central Moral Principle	Moral Scope	Institutional/Policy Implications	Principal Critiques	Key Sources
Utilitarian Animal Ethics	Maximisation of aggregate welfare and minimisation of suffering	All sentient beings	Strong welfare reform; conditional permissibility of harm if overall utility is maximised	Aggregative logic may override individual inviolability	[12]
Capability Approach	Protection of species-specific flourishing and central capabilities	Animals as subjects of justice	Legal recognition of fundamental entitlements; capability thresholds	Difficulty specifying cross-species capability standards	[162,233]
Kantian Constructivist Approach	Duties grounded in recognition of beings with a “good of their own”	Animals as ends-in-themselves in a derivative but morally binding sense	Strong duties against cruelty; reform of exploitative institutions	Retains asymmetry in moral agency	[23]
Asymmetrical Responsibility Model	Greater human obligations grounded in power, knowledge, and institutional agency	Sentient animals within differentiated moral relations	Emphasis on responsibility rather than equality; institutional accountability	May appear insufficiently transformative	[48,182]
Symbiotic Humanist Model (Integrative Proposal)	Relational responsibility within ecological interdependence and structural asymmetry	Multispecies relational systems	Integrated ethical, ecological, and institutional reform guided by precaution and pluralism	Requires further operationalisation in law and governance	[138,176,182]

Source: [12,18,23,48,158,162,176,182,233].

This transition from synthetic convergence to normative comparison clarifies the theoretical space within which the proposed symbiotic humanist framework is situated.

As Table 4 illustrates, contemporary animal ethics is characterised not by a single dominant paradigm but by a structured plurality of normative models. While utilitarianism foregrounds suffering, the capability approach emphasises flourishing, and constructivist or asymmetry-based models stress differentiated responsibility, the proposed symbiotic humanist perspective integrates these strands within a relational and ecologically embedded ontology. This integrative positioning strengthens the central claim of the present review: evolutionary continuity and normative asymmetry are not contradictory but complementary foundations for a pluralistic multispecies ethics.

The integrative analysis developed in this review carries several normative implications. First, precautionary reasoning should guide ethical decision-making under conditions of scientific uncertainty regarding animal consciousness. Second, institutional responsibility must be foregrounded, given the structural asymmetries that characterise human–animal relations in agriculture, research, and environmental governance. Third, ethical deliberation should move beyond trait-based hierarchies toward relational models that recognise ecological interdependence and differentiated obligations. These implications reinforce the need for multispecies frameworks that combine empirical sensitivity with normative accountability.

As Haraway reminds us, “we are compost, not post-human.” To be human, in this renewed sense, is to inhabit the world responsively, with empathy that transcends the skin, compassion that dwells in the body, and a consciousness that extends into the breathing world [138]. The proposals advanced here should be understood not as programmatic certainties but as heuristic orientations open to revision, empirical constraint, and philosophical dispute. The aim is not to replace one form of dogmatism with another but to contribute to an ongoing effort to articulate conceptual frameworks capable of doing justice to both continuity and difference in the living world.

The ethical and institutional proposals discussed here should be understood as regulative ideals rather than immediately actionable blueprints, requiring ongoing philosophical scrutiny and practical mediation.

The proposed symbiotic humanist framework requires further operationalisation within concrete legal and policy contexts. Future research should therefore extend this conceptual synthesis into empirical, institutional, and cross-cultural domains.

In light of evolutionary continuity and mounting empirical evidence of animal cognition, the question is no longer whether animals matter morally, but how moral responsibility

ought to be structured within asymmetrical and ecologically entangled relations. The framework advanced here suggests that continuity and asymmetry are not opposing theses but mutually reinforcing dimensions of a mature multispecies ethics. By grounding moral responsibility in relational interdependence rather than metaphysical hierarchy, symbiotic humanism offers a philosophically coherent and normatively actionable orientation for contemporary animal ethics. Such an approach does not dissolve human distinctiveness, but reframes it as a source of responsibility within a shared and vulnerable biosphere. Through the integration of scientific insight, philosophical depth, and ethical imagination, this review has sought to illuminate the transformative potential of rethinking consciousness through the lens of animality. The task ahead is collective: to cultivate cultures, institutions, and practices that reflect the truth that to live well is to live well together—human and non-human alike.

While the SRRM is primarily conceptual, its normative implications are operationalisable. It supports precautionary standards in animal welfare policy, strengthens institutional accountability in industrial and research contexts, and provides criteria for evaluating technological interventions based on scale of impact and degree of reflexive control. Its stratified structure thus offers not only theoretical clarity but practical orientation.

Only through such reimagining can we move toward a more equitable, compassionate, and ecologically attuned civilisation—one where the boundaries of moral concern expand as widely as the field of life itself. The Stratified Relational Responsibility Model developed in this review does not seek to dissolve differences between species, nor to reassert hierarchical exceptionalism. Instead, it clarifies how continuity and differentiation coexist within a shared ontological field. By grounding moral considerability in sentience and vulnerability, and grounding asymmetrical obligation in reflexive and institutional capacities, the model provides a coherent architecture for symbiotic humanism. In doing so, it reframes human distinctiveness as a site of intensified accountability within multispecies ecological systems.

In summary, the framework proposed here does not resolve these tensions conclusively. Rather, it seeks to render them explicit and philosophically tractable, showing how commitments to evolutionary continuity, experiential diversity, and asymmetrical responsibility can coexist without collapsing into either anthropocentric hierarchy or undifferentiated moral egalitarianism.

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Notes

- ¹ This statement is traditionally attributed to Saint Paisios of Mount Athos and is consistent with the overall spirit of his teachings as gathered in *Spiritual Counsels I: With Pain and Love for Contemporary Man* [1]. Although the exact wording circulates primarily in secondary sources and cannot be easily traced to a specific page in the published volume, its content faithfully reflects Paisios's recurrent emphasis on radical compassion, prayer for the salvation of all, and the refusal of a form of spiritual peace detached from the suffering of others. The underlying idea of this statement may be synthesised in the following interpretative formulation: "If joy exists, let it be shared by all. If suffering remains, let me not be at peace while anyone is abandoned." This sentence is not a literal quotation from Saint Paisios, but an interpretative paraphrase authored by the present author, formulated to express in contemporary language the core ethical meaning condensed in the quotation attributed to Saint Paisios. It should therefore not be understood as a historical or textual citation, but as a conceptual reformulation intended to clarify its fundamental ethical sense: namely, the impossibility of dissociating one's own peace, happiness or fulfilment from the fate and suffering of others. This ethical conception—which rejects any form of individual well-being built upon the exclusion or invisibilisation of the suffering of

others—resonates across multiple contemporary domains, including care ethics, oncology and geriatrics, where quality of life, vulnerability and relational dignity are central concerns. At the same time, it aligns with post-anthropocentric and relational ethical approaches, such as those discussed throughout this paper, which extend moral responsibility beyond the human to include animals and other sentient beings. From this perspective, suffering—whether human or non-human—becomes an unavoidable ethical criterion, calling for an expansion of compassion and responsibility that traverses species, bodies and forms of consciousness.

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