

The precautionary principle and the expanding moral circle for animal sentience in Jonathan Birch's proposal



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Abstract This paper explores the emerging application of the precautionary principle for animal sentiment to companion animal adoption practices. The study's objective was to determine the extent to which this principle can foster more ethically defensible, proactive, and welfare-centric adoption outcomes. Employing a methodology of documentary analysis, this research critically reviewed Birch's primary work alongside relevant literature in animal welfare science and adoption ethics, focusing on the principle's foundational tenets: the definition of sentience, the epistemic rule for inferring sentience, and the decision rule for action. The results indicate that Birch's framework offers a compelling rationale for a paradigm shift in adoption, mandating enhanced adopter screening, comprehensive counseling, ongoing postadoption support, and innovative precautionary clauses in adoption contracts. While acknowledging potential challenges such as increased resource demands and privacy concerns, the findings suggest that these challenges are manageable through carefully calibrated measures. In conclusion, applying the precautionary principle to companion animal adoption is a necessary advancement toward more ethically sound, welfare-centric practices, urging a move from transactional views to a covenant of care. This requires systemic engagement, including standardized guidelines and supportive legal structures.

Keywords: animal sentience, precautionary principle, companion animal adoption, animal welfare, ethical framework

1. Introduction

Jonathan Birch has been a prominent voice in articulating a specific formulation of the precautionary principle tailored to the question of animal sentience. His work argues that a lack of complete scientific certainty regarding an animal's capacity to suffer should not be a barrier to implementing reasonable preventive measures, especially when there is a credible risk of severe negative consequences for their well-being. This perspective addresses a critical gap: how to make ethically sound decisions concerning animals when our knowledge of their inner lives is incomplete.

In this context, the ethical imperative to ensure animal welfare, particularly for beings capable of valenced experiences, presents ongoing challenges, especially when navigating uncertainty regarding their subjective states or when proactive protective measures are essential. Jonathan Birch's precautionary principle for animal sentiment (Birch, 2017; 2024) offers a significant theoretical and practical framework to address these complexities.

This principle, which advocates granting moral consideration and protective measures to "candidates for sentience", where a nonnegligible possibility of such capacity exists, has broad implications across various human–animal interaction contexts. This paper critically examines Birch's framework, focusing on its foundational tenets—the definition of sentience, the epistemic rule for inferring sentience, and the decision rule for action—and explores its novel and largely unexamined application to the domain of companion animal adoption.

The central research question guiding this study is as follows: To what extent can Birch's precautionary principles for animal experience be effectively applied to current companion animal adoption practices to foster more ethically defensible, proactive, and welfare-centric outcomes?

It is hypothesized that extending Birch's precautionary principle to companion animal adoption provides a robust ethical and practical foundation for transforming current practices from predominantly reactive interventions to proactive, welfare-oriented strategies, thereby better safeguarding animal well-being, despite acknowledged implementation challenges.

This study employs a methodology of documentary analysis. It involves a critical review of Birch's primary work on the precautionary principle for animal sentiment, alongside relevant literature in animal welfare science and ethical considerations pertinent to animal sheltering and adoption. The analysis focuses on deconstructing the principle's core components and systematically exploring its theoretical and practical implications for the companion animal adoption process, including adopter screening, contractual agreements, and postadoption support.



The results of this analysis indicate that Birch's framework offers a compelling rationale for a paradigm shift in companion animal adoption. The principle logically extends to mandating enhanced adopter screening, comprehensive preadoptive counseling, ongoing postadoption support, and the innovative integration of precautionary clauses (e.g., stipulating conditions for home visits, veterinary evaluations, and animal restitution) within adoption contracts.

While the study acknowledges potential challenges, such as increased resource demands on shelters, the risk of reducing adoption rates if criteria are overly stringent, and adopter privacy concerns, the findings suggest that these are not insurmountable. Instead, they necessitate careful calibration of "proportionate measures" and underscore the ethical weight of preventing animal suffering.

In conclusion, this paper argues that the application of Birch's precautionary principle to companion animal adoption is not merely a theoretical exercise but rather a necessary advancement toward more ethically sound and welfare-centric practices. It calls for a move beyond transactional views of adoption toward a covenant of care. The successful implementation of such a framework, however, requires systemic engagement, including the development of standardized guidelines, further empirical research into its impacts, and supportive legal and policy structures to ensure a more just and compassionate approach to all beings capable of experiencing suffering.

2. Theoretical Overview of the Main Concepts

2.1. Animal sentience

The concept of animal welfare has undergone a profound transformation, shifting from a peripheral concern to a central ethical and scientific domain (Harrison, 2013; Jones, 2016; Vargas-Chaves & Marulanda, 2024a; Tye, 2016). This evolution is inextricably linked to the burgeoning recognition of animal sentience, which acknowledges the capacity of nonhuman animals to experience a wide spectrum of emotions and sensations. This understanding fundamentally challenges traditional anthropocentric views that historically positioned animals as mere resources. Instead, it underscores a compelling moral imperative to minimize suffering and actively enhance quality of life (Loureiro, 2023).

This deepening appreciation of animal sentience not only reshapes ethical considerations but also propels the development of robust legal frameworks. These frameworks are increasingly aimed at protecting animals from harm, and ensuring their well-being is prioritized. The societal shift reflects a growing consciousness of human responsibility toward other living beings, moving beyond simple utility (Petrini & Wilson, 2005).

The foundation for this paradigm shift rests significantly on a robust and expanding body of scientific evidence. Neurobiological studies, comparative psychology, and detailed ethological observations have consistently revealed the presence of sentiment across a diverse array of species. As leading ethologist Bekoff (2021) extensively documented, many animals possess complex nervous systems and exhibit sophisticated emotional processing capabilities analogous, although not identical, to those observed in humans.

Physiological and behavioral reactions to noxious stimuli in numerous vertebrates and even some invertebrate species closely mirror human pain responses. These reactions include withdrawal from the source of pain, protective behaviors, and discernible alterations in the affective state (Broom, 2019). This growing scientific consensus on animal sentience provides a critical underpinning for arguments advocating greater moral consideration for animals in various contexts.

The ethical implications stemming from the acknowledgment of animal sentience are manifold and complex, prompting a thorough re-evaluation of human responsibilities. Traditional utilitarian perspectives might argue for continued animal use if human benefits outweigh animal suffering. However, Singer (2015), a prominent proponent of utilitarian ethics in this domain, argues for equal consideration of interests, suggesting that the capacity to suffer, not the ability to reason, should be the benchmark for moral concern.

Conversely, deontological ethics, which focus on intrinsic rights and duties, emphasize the inherent value of animals as sentient individuals. Proponents of this view, such as Regan (2004), maintain that there is a fundamental moral obligation to avoid causing harm to beings capable of experiencing pain and distress, irrespective of potential human gains. This deontological stance posits that animals possess certain moral rights, including respectful treatment.

The recognition of sentience, therefore, engenders a significant moral imperative to actively prevent and alleviate animal suffering (Nussbaum, 2006). This imperative extends beyond merely avoiding overt cruelty, encompassing a broader responsibility for ensuring that animals under human influence experience conditions conducive to their physical and psychological well-being. This evolving ethical landscape has catalyzed more stringent legal protection.

International milestones have been pivotal in shaping global consciousness regarding animal welfare. As Palmer (2010) suggested, foundational documents such as the Universal Declaration of Animal Rights have been instrumental in establishing core principles. This declaration asserted that all animals are born equal and have the same right to existence, recognizing their right to life, liberty, and respect (International League for Animal Rights, 1978).

Building upon these international principles, various regional instruments have sought to codify protection. The European Convention for the Protection of Pet Animals, for example, serves as a significant regional framework, providing clear

definitions and operational guidelines (Council of Europe, 1987). This convention specifically addresses the welfare of companion animals, outlining owner responsibilities for appropriate care.

Furthermore, the convention acknowledges and seeks to regulate the complexities of the commercial trade and breeding of companion animals. It draws important distinctions between these profit-oriented activities and the work of nonprofit shelters dedicated to rescuing and rehoming animals (Wolfensohn & Lloyd, 2018). These legal instruments reflect a societal acknowledgment that sentience necessitates protective measures.

Such measures are evolving beyond mere anti-cruelty statutes toward proactive welfare promotion (Garner, 2005). The ongoing refinement of these legal standards, informed by continuous scientific discovery and robust ethical debate, signifies a crucial progression in societal responsibilities toward sentient beings (Fraser, 2008).

In conclusion, the modern understanding of animal welfare is inextricably interwoven with the scientific validation of animal sentience. This recognition has profound ethical ramifications, challenging traditional anthropocentric paradigms and fostering a greater sense of moral responsibility toward nonhuman animals (Vera et al., 2023; Appleby et al., 2018). The development of international and regional legal frameworks further reflects this evolving consciousness, aiming to translate ethical principles into tangible protection. While debates surrounding the precise extent of animal rights and the balance between human interests and animal welfare persist, the foundational acknowledgment of animal sentience continues to drive progress toward a more compassionate and ethically defensible relationship between humans and other species.

2.2. *The precautionary principle of animal sentience*

The precautionary principle, a cornerstone of environmental governance, offers a compelling framework for navigating scientific uncertainty. Its traditional application addresses potential ecological harm where causality is unproven, but risks are substantial (Kriebel et al., 2001). This proactive stance, which prioritizes preventive measures against significant, albeit uncertain, threats, is increasingly recognized for its utility beyond environmental policy. The extension of this principle to the complex domain of animal sentience signifies a critical evolution in ethical reasoning and welfare considerations.

Animal sentience, defined as the capacity to experience subjective states such as pain, pleasure, and fear, presents profound scientific and philosophical challenges. Accurately assessing or comprehending the experiential world of nonhuman animals remains an intricate endeavor (Mellor, 2016). This epistemic opacity often complicates the development and enforcement of robust animal welfare policies, creating a moral imperative to consider how decisions are made under such uncertainty. The scientific community has, however, made significant strides in understanding markers of sentience across various species.

Indeed, as Broom (2019) elucidates, the scientific study of animal sentience, encompassing neurobiological, cognitive, and behavioral evidence, underpins contemporary animal welfare science. The increasing acknowledgment of sentience, even in species where understanding is incomplete, challenges deeply rooted anthropocentric views. This paradigm shift fosters a greater sense of moral obligation toward other beings, urging a re-evaluation of human–animal relationships and responsibilities. The Cambridge Declaration on Consciousness, for example, asserted that nonhuman animals possess neurological substrates for consciousness (Low et al., 2012).

The application of the precautionary principle to animal sentience has been forcefully advocated. Birch (2017) argues that when evidence suggests that a nonhuman animal might be sentient and that there are potential welfare impacts from human actions, we should "err on the side of caution" and implement protective measures. This approach is particularly relevant where scientific consensus is emerging but not yet definitive for all species or all aspects of their experience. This stance acknowledges the ethical weight of potential suffering.

This evolving understanding has significant ethical ramifications, compelling a move beyond minimalist welfare standards. The ethical demand is not merely to prevent cruelty but also to actively promote conditions conducive to positive affective states for animals (Rollin, 2006). This perspective is slowly permeating legal and regulatory frameworks internationally. The European Commission (2000) itself has acknowledged the importance of the precautionary principle in policy-making where scientific information is incomplete, a standard that can be logically extended to animal welfare.

Consequently, international and regional legal instruments are beginning to reflect this heightened ethical consciousness, aiming to translate principles of sentience recognition into tangible animal protection. While the debate regarding the precise legal status and rights of animals continues, the foundational acceptance of their sentience serves as a powerful catalyst for progressive reforms (Sunstein, 2005). These legal shifts often encounter resistance, balancing human interests with animal welfare, yet the directionality is toward greater consideration of animal interests.

Linzey (2009) emphasized that recognizing animal sentience is not merely an academic exercise but a moral imperative that should fundamentally alter how humans interact with other species. This involves questioning practices in agriculture, research, and entertainment that may inflict suffering. The modern discourse, therefore, moves toward ensuring not only survival but also "a life worth living" for animals under human care or impact.

The journey toward a more ethically defensible relationship with nonhuman animals is ongoing and fraught with complexities. However, the synergy between scientific investigations into animal sentience and the ethical guidance offered by the precautionary principle provides a robust pathway forward. As Grandjean (2004) noted, the precautionary principle

underpins evidence-based preventive action, a vital concept when considering beings incapable of self-advocacy in human systems. This encourages the continuous refinement of welfare standards and legal protection as scientific understanding evolves.

In preliminary terms, integrating the precautionary principle into discussions about animal sentience provides crucial ethical and practical tools. It allows for proactive welfare measures even amidst scientific ambiguity, thereby fostering a more compassionate and morally responsible approach to nonhuman animals. This evolving ethical landscape, supported by scientific validation and translated into legal frameworks, signals a significant and positive shift in humanity's moral consideration of other sentient beings, striving for a future where animal welfare is more comprehensively protected.

3. Methodology

This study employed a documentary analysis methodology to investigate the applicability of Jonathan Birch's precautionary principle for animal sentience to companion animal adoption practices. Documentary analysis, as utilized here, involves a systematic review and critical evaluation of existing written and recorded materials. The core objective was to synthesize information and critically examine the theoretical and practical dimensions of applying Birch's framework to the specific context of adopting companion animals, thereby addressing the central research question.

A comprehensive literature search was conducted across several academic databases, including Scopus, Web of Science (WoS), HeinOnline, EBSCO, and JSTOR. The search strategies incorporated specific keywords such as "animal sentience," "precautionary principle," "Jonathan Birch," "animal welfare," "companion animal adoption," and "animal ethics." Boolean operators (AND, OR) were utilized to refine these searches, ensuring the retrieval of a targeted and relevant body of scholarly articles, books, and ethical guidelines for subsequent analysis.

The corpus of selected documents primarily included Birch's foundational works on the Precautionary Principle for Animal Sentience, supplemented by pertinent literature from animal welfare science, veterinary ethics, and publications addressing animal sheltering and adoption protocols. Each document was subjected to a critical review. This process focused on deconstructing the principle's core components—the definition of sentience, the epistemic rule for inferring sentience, and the decision rule for action—and exploring their implications for adoption procedures.

To ensure a robust and nuanced understanding, information triangulation was applied by cross-referencing and comparing data from these diverse sources. This involved examining how theoretical propositions from Birch's work aligned with, or diverged from, ethical considerations in animal sheltering and the practical challenges identified in the welfare science literature. The synthesis aimed to identify the potential for Birch's principle to foster more ethically defensible and welfare-centric outcomes in companion animal adoption.

4. Results

4.1. *Birch's precautionary principles for animal sentiment proposal*

Jonathan Birch defines sentience as the capacity for valenced experience, meaning experiences the subject perceives as good or bad, such as pleasure, pain, or distress. He distinguishes this from broader concepts such as consciousness or intelligence, arguing that sentience alone is a sufficient basis for moral concern and grounding moral status.

In this context, Birch's framework addresses diverse and challenging cases where the presence of sentience is uncertain, including humans with disorders of consciousness, human fetuses, laboratory-grown brain organoids, nonhuman animals such as cephalopods (e.g., octopuses, squid) and decapod crustaceans (e.g., crabs, lobsters), and advanced artificial intelligence systems. For each of these, Birch (2024) examines how ethical and policy responses can be shaped by precautionary reasoning in the face of such uncertainty.

A central concept in Birch's approach is the "candidate for sentience," which refers to any system for which there is a credible and nonnegligible possibility of it being sentient. He argues that when dealing with such candidates, it is ethically imprudent to ignore the possibility of their suffering when making policy or clinical decisions.

The precautionary framework proposed by Birch (2024) is built upon three foundational principles: the duty to avoid gratuitous suffering, the ethical transcendence of candidacy for sentience (i.e., the mere possibility of sentience carrying moral weight), and the importance of inclusive and informed democratic deliberation regarding proportionate and appropriate precautionary measures.

Birch's work offers concrete policy and practice proposals across various domains. These include advocating for pain relief in medical cases of ambiguous consciousness, establishing ethical restrictions on research involving human fetuses and brain organoids, enhancing the protection of invertebrate animals used in agriculture, and developing anticipatory regulations for emerging artificial intelligence systems.

A key takeaway from Birch's framework is that policies concerning potentially sentient beings should be guided not by a demand for absolute certainty but by prudent management of risks that prioritize the avoidance of suffering, especially when decisions may have irreversible consequences or affect vulnerable systems.

The ethical imperative to safeguard animal well-being is often confronted by the limits of human understanding regarding their subjective experiences. Navigating decisions where scientific certainty about animal sentience is incomplete but the potential for suffering is significant presents a profound challenge. Jonathan Birch has notably addressed this by articulating a specific formulation of the precautionary principle for animal sentience.

The precautionary principle, in its various forms, generally advocates proactive measures when an activity raises threats of harm to human health or the environment, even if some cause–effect relationships are not fully established scientifically. As Stephen et al. (2022) illustrate in the context of emerging infectious zoonoses, the principle provides a framework for decision-making under uncertainty to prevent serious harm. Adapting this logic to animal ethics, Birch's formulation offers a structured approach to address the epistemic limitations surrounding our knowledge of animal consciousness and their capacity to suffer (Birch, 2024).

At its core, Birch's precautionary principle for animal sentience argues that a lack of absolute scientific certainty should not paralyze efforts to implement reasonable preventive measures when animals face a credible risk of severe negative welfare consequences. Birch (2017) posits that "where there are threats of serious, negative animal welfare outcomes, lack of full scientific certainty as to the sentience of the animals in question should not be used as a reason for postponing proportionate, species-appropriate, welfare-protecting measures" (p. 1). This perspective directly addresses the gap in how to proceed ethically when knowledge is incomplete.

Birch's framework comprises two crucial components. The first is an epistemic rule, suggesting that if there is credible evidence of sentience in at least one species within a particular taxonomic order, other species in that order should also be considered for protective action, even if direct evidence for them is sparse (Birch, 2017). The presence of even a single scientifically supported indicator of pain or suffering can thus trigger this rule, extending a cautious approach across related groups (Patterson-Kane & Golab, 2013).

The second component is a decision rule: if a species is deemed to meet the criteria for sentience based on the epistemic rule or other substantial evidence, then all species within the same taxonomic order should be regarded as sentient for legal protection and ethical consideration (Birch, 2017). This aims to ensure that protections are not unduly withheld due to granular evidential gaps when broader taxonomic relationships suggest a likelihood of similar capacities for suffering (Broom, 2019).

While Birch's principle has spurred discussion in bioethics and welfare science, its application to companion animal adoption practices remains an underexplored but potentially fruitful avenue. The adoption process inherently involves uncertainty regarding an animal's future well-being in a new environment (Gartner et al., 2016). Applying Birch's precautionary framework could provide robust ethical underpinnings for decisions made by shelters and rescue organizations, prioritizing the avoidance of negative welfare outcomes.

4.2. Extending birch's framework to companion animal adoption

In the context of companion animal adoption, the epistemic rule can be readily applied. Common companion animal species, such as dogs and cats, belong to taxonomic orders where sentience is widely acknowledged, which is supported by extensive behavioral and neurological research (Mellor, 2016). Therefore, adoption protocols should operate from a baseline assumption of their sentience and inherent vulnerability to suffering, even if predicting an individual animal's specific future experiences is complex.

The decision rule, following this, mandates proactive and protective measures within the adoption system. This could translate into more rigorous adopter screening processes designed to identify potential risks to the animal's future well-being (Johnson, 2018). Furthermore, it might necessitate enhanced pre-adoptive counseling and mandatory postadoption support to mitigate risks and ensure that the animal's needs are adequately met in its new home, thereby reducing relinquishment rates.

The implementation of such precautionary measures could face challenges, including increased resource demands on often-strained shelter systems and the potential for overly strict criteria that might reduce overall adoption numbers (Mohan-Gibbons et al., 2018). However, Croney et al. (2025) argues for continuous ethical rethinking of animal sheltering, suggesting that innovative approaches prioritizing long-term welfare are essential. A precautionary approach aligns with this call for increased responsibility in the placement of sentient beings.

The potential benefits of applying Birch's principle include a more ethically defensible adoption process, a reduction in animal suffering due to failed adoption, and the promotion of more informed and responsible pet ownership (Yeates, 2024). By explicitly acknowledging uncertainty and prioritizing the prevention of harm, shelters can fortify their commitment to the lifelong welfare of the animals in their care (Newbury et al., 2010).

4.3. Improving welfare in companion animal adoption through birch's framework

While Birch's framework and its reception have been discussed within bioethics and animal welfare science, its specific application to the practical domain of companion animal adoption presents an underexplored avenue. Companion animal adoption processes often involve transferring responsibility for an animal's care to new individuals, and uncertainties about ensuring the animal's future well-being in its new environment are common.

Jonathan Birch's formulation of the precautionary principle, as applied to animal sentience, posits that a lack of complete scientific certainty should not be a reason to delay the implementation of reasonable preventive measures when there is a credible risk of severe negative consequences for animals. This principle is designed to guide action in the face of epistemic limitations regarding the inner lives of animals.

As mentioned above, the formulation involves two key components:

An epistemic rule: This rule suggests that minimal credible evidence of sentience in at least one species within a given taxonomic order is sufficient to warrant anticipatory protective action for other species within that order where evidence might be lacking or less clear. The presence of even a single scientifically supported indicator of animal pain or suffering can be enough to invoke this aspect of the principle (Birch, 2024).

A decision rule: This rule states that if a species is deemed to meet the criteria for sentience (based on the epistemic rule or other evidence), then all species belonging to the same taxonomic order should be considered sentient for the purposes of legal protection and ethical consideration (Birch, 2024).

Essentially, the core idea is that protective measures should not be postponed when there is sufficient evidence, even under conditions of uncertainty, that animals could experience serious harm or suffering.

Jonathan Birch's formulation of the precautionary principle offers valuable guidance for ethical decision-making concerning animal sentience. Extending this framework to companion animal adoption practices provides a structured approach to managing the inherent uncertainties in placing animals in new homes. By embracing its epistemic and decision rules, the companion animal welfare sector can enhance the ethical integrity of adoption processes, better safeguarding the well-being of sentient individuals for whom they assume temporary responsibility.

In this context, Birch (2017) argues for its application concerning animal sentience, suggesting that where credible evidence indicates a capacity for suffering, measures should be taken to protect welfare. This ethical stance finds a direct parallel in companion animal adoption, where the future well-being of an animal in a new home is inherently uncertain. The principle can thus serve as a vital anticipatory criterion, embedding care obligations within adoption agreements from the outset. In many jurisdictions, precise legal definitions of animal welfare or comprehensive frameworks for its assurance remain underdeveloped (Blasco & Mateu, 2011). This legal ambiguity can leave adopted animals vulnerable.

The precautionary principle, when incorporated into adoption processes, helps to bridge this divide by establishing a proactive stance. It shifts the onus toward preventing harm before it occurs rather than relying solely on reactive measures after welfare has been compromised. This approach aligns with the ethical responsibilities implicitly and explicitly undertaken by both rescue organizations and adopting families.

The practical application of the precautionary principle within adoption contracts allows for immediate action to safeguard an animal's welfare. Rescue organizations, such as shelters and foundations, often operate with limited resources but profound ethical commitments (Vera et al., 2023). Integrating precautionary clauses into adoption agreements empowers these organizations to act decisively. Such clauses might stipulate conditions such as periodic home visits conducted by trained personnel from the rescue organization.

Furthermore, contracts can mandate regular evaluations of the animal's physical and psychological condition at predetermined intervals. These evaluations could be performed by veterinary professionals or qualified animal behaviorists. As Fraser (2008) discussed, the precautionary principle of animal welfare encourages anticipatory measures to prevent suffering. These contractual stipulations serve as concrete manifestations of this principle, allowing continuous oversight and early detection of potential welfare issues.

A critical element of this framework is the ability to act upon even minimal, yet credible, suspicions of potential harm or neglect. If substantive concerns arise regarding an animal's care, precautionary clauses within the contract could be triggered. This might involve, as an ultimate measure, the restitution of the animal to the care of the rescue organization, ensuring its safety when its well-being is at risk (Saura & Banqué, 2023). These provisions underscore the seriousness of the adopter's commitment.

These contractual mechanisms inherently involve monitoring and surveillance, which are crucial for ensuring compliance with agreed-upon obligations. While surveillance can raise privacy concerns, in this context, it is framed by the mutual agreement to protect the animal's welfare (Bradshaw, 1998). The proportionality of such measures is key; monitoring should be no more intrusive than necessary to reasonably ensure the animal's well-being, reflecting Birch's emphasis on a balanced application of precaution.

The aims of applying the precautionary principle extend beyond merely protecting animals from direct harm or neglect. It also seeks to actively strengthen the human–animal bond. By fostering a framework of responsible coexistence built on principles of respect and empathy, these measures can enhance the quality of the relationship between adopters and their companion animals (Fraser, 2008). This contributes to a more holistic view of animal welfare.

Ultimately, this approach supports the development of a more just and compassionate society that recognizes the intrinsic value of animals. It acknowledges their place within a multispecies family context, moving beyond a purely utilitarian view of animal companionship. The focus, as derived from Birch's work, remains on making sound decisions under uncertainty

by applying precaution, proportionality, and ensuring accountability rather than being mired in definitively solving complex philosophical quandaries about animal consciousness.

This pragmatic application is essential for tangible welfare improvements. The ethical imperative to act when faced with uncertainty, a core tenet of the precautionary principle as described by Tye (2016), is thus met through these proactive contractual safeguards. The development of such welfare-centric adoption policies is also supported by organizations dedicated to animal protection, which often advocate for rigorous postadoption monitoring (Jones, 2013). Effective adoption processes are not merely transactions but also the beginning of a lifelong commitment that benefits from such ethical scaffolding.

5. Discussion

A primary strength of Birch's general framework lies in its pragmatic approach to the challenging definition and identification of sentience—defined as the capacity for valenced experience. By focusing on this specific capacity as sufficient for moral concern, Birch sidesteps more intractable debates about broader consciousness or intelligence, offering a more tractable basis for ethical action. This is particularly salient when considering diverse and ethically fraught cases, ranging from humans with disorders of consciousness and human fetuses to nonhuman animals such as cephalopods and decapod crustaceans, and even speculatively advanced AI (Birch, 2024).

The concept of a "candidate for sentience," carrying moral weight owing to the nonnegligible possibility of sentience, coupled with the foundational duty to avoid gratuitous suffering, provides a robust ethical mandate. Birch's (2024) epistemic rule—extrapolating the likelihood of sentience from one species to others within the same taxonomic order—and the subsequent decision rule—affording legal protection and ethical consideration based on this extrapolation—offer a practical, albeit broad, mechanism for extending protections where direct evidence may be sparse, aligning with Broom's (2019) emphasis on taxonomic relationships.

The novel application of this framework to companion animal adoption, as explored in the preceding sections, highlights its versatility and practical importance. In this context, the sentience of common companion animals such as dogs and cats is widely acknowledged, satisfying the epistemic rule. The ensuing decision rule then mandates proactive measures, translating them into more rigorous adopter screening, pre-adoptive counseling, and postadoption support.

The proposal to embed the precautionary principle within adoption contracts—stipulating conditions such as periodic home visits, veterinary evaluations, and clauses for animal restitution in cases of suspected harm or neglect—operationalizes this ethical commitment. This shifts the paradigm from a reactive stance, which addresses welfare issues only after they arise, to a proactive one, which is deeply concerned with preventing harm. This aligns powerfully with the ethical responsibilities that rescue organizations and adopters implicitly undertake.

However, Birch's proposal, both in its general formulation and its specific application to animal adoption, is not without potential challenges and critiques (Birch, 2024). A general concern often leveled at precautionary principles is the risk of being overly cautious, potentially stifling beneficial activities or leading to an unmanageable scope of moral concern if the threshold for "credible and nonnegligible possibility" of sentience is set too low or if "proportionate measures" are difficult to define and implement. Critics might argue that the epistemic rule, while pragmatic, is a scientifically coarse heuristic; sentience capabilities can vary significantly even within taxonomic orders, and assuming homogeneity could lead to misapplied protections or unnecessary restrictions.

Specifically, within the companion animal adoption context, the text acknowledges several pragmatic challenges. The implementation of more rigorous screening and postadoption monitoring inevitably places increased resource demands on animal shelters, which often operate under significant financial and personnel constraints.

There is also the concern that overly strict adoption criteria could, paradoxically, reduce overall adoption numbers, potentially leaving more animals in shelters or leading to alternative, less regulated rehoming pathways. Furthermore, contractual clauses involving monitoring and home visits, while intended to safeguard welfare, can raise legitimate privacy concerns for adopters, potentially deterring well-meaning individuals.

Despite these concerns, the arguments in favor of Birch's precautionary approach remain compelling. With respect to general critiques, Birch's framework itself calls for "proportionate, species-appropriate, welfare-protecting measures" and emphasizes the importance of "inclusive and informed democratic deliberation" (as mentioned in the initial summary of his work provided by the user).

This suggests a built-in mechanism for calibration, aiming to avoid undue paralysis while upholding the ethical imperative to prevent suffering. The potential for misapplying the taxonomic rule is a point for careful consideration in implementation, yet the ethical cost of failing to protect a sentient often outweighs the inconvenience of extending caution.

In the adoption context, while resource demands are undeniable, they can be reframed as essential investments in ethical practice and long-term animal well-being, resonating with Vargas-Chaves and Marulanda's (2024b) call for continuous ethical rethinking of animal sheltering. The cost of failed adoptions—encompassing animal suffering, emotional distress for adopters, and the burden of animals being returned to shelters—is also substantial.

The argument that stricter criteria might reduce adoption numbers must be weighed against the ethical priority of ensuring high-quality, sustainable placements where an animal's welfare is genuinely secured. The goal shifts from a mere quantity of adoptions to the quality and longevity of the human–animal bond and the animal's lived experience.

Privacy concerns can be mitigated by ensuring that monitoring is based on mutual agreement, is proportionate, and is clearly justified by the vulnerable status of the animal and the commitment to its welfare. The framing of adoption not merely as a transaction but also as the beginning of a lifelong commitment provides ethical scaffolding for such measures.

The implications of fully embracing Birch's precautionary principle are profound. Beyond animal adoption, it offers a structured way to approach ethical dilemmas concerning any entity whose capacity for valenced experience is uncertain but plausible (Birch, 2024). For companion animal adoption, it signals a paradigm shift toward a more ethically defensible, proactive, and welfare-centric model. However, to realize its full potential, this framework requires more than voluntary adoption by individual organizations; it necessitates broader engagement.

There is a clear need for the development of standardized guidelines that define "proportionate measures" in the adoption context—what constitutes reasonable screening, effective yet nonintrusive postadoption support, and justifiable grounds for intervention. Further research is essential to empirically evaluate the impact of precautionary adoption protocols on outcomes such as relinquishment rates and long-term animal welfare indicators. Legal frameworks may also need to evolve to better recognize and support the enforceability of welfare-oriented contractual provisions.

In conclusion, Birch's precautionary principle for animal sentiment and its thoughtful extension to the sphere of companion animal adoption present robust, ethically sound, and necessary advancements (Birch, 2017). While acknowledging the critiques and practical challenges, particularly concerning resource allocation and the precise calibration of precautionary measures, the fundamental premise—that the potential for suffering in a sentient or potentially sentient being warrants proactive, protective action even in the face of uncertainty—remains critically important.

The ethical imperative to safeguard well-being demands such a shift. Birch's proposal is not a panacea; rather, it is a compelling call to action. It provides a valuable framework that requires serious consideration, ongoing refinement through research and deliberation, and ultimately, systemic implementation supported by appropriate regulatory and policy structures to ensure a more just and compassionate approach to all beings capable of experiencing the world in terms of good and bad.

Engaging directly with the economic critique, the practical implementation of a precautionary model demands a shift in resource allocation that many non-profit rescue organizations are ill-equipped to handle. The costs associated with enhanced behavioral assessments, comprehensive adopter education programs, and sustained post-adoption monitoring are substantial. This highlights a critical policy implication: the ethical imperative to protect animal welfare cannot be shouldered by charitable organizations alone. It suggests a need for new funding models, potentially involving municipal or state subsidies, that recognize animal sheltering as an essential public service, thereby aligning fiscal policy with ethical commitments.

Furthermore, a robust discussion must consider alternative ethical frameworks that might challenge a strict application of the precautionary principle. For instance, a more utilitarian calculus could argue that overly stringent adoption protocols, while protecting individual animals, might inadvertently lead to worse aggregate outcomes. If such measures significantly reduce overall adoption rates, they could increase shelter populations, leading to prolonged confinement or higher euthanasia rates. This creates a genuine ethical tension between the deontological duty to prevent potential harm to an individual and the consequentialist goal of maximizing welfare for the greatest number of animals.

Translating this principle into actionable policy also requires navigating complex legal and social terrains. For policy relevance, the framework would benefit from the development of tiered or context-dependent guidelines rather than a one-size-fits-all mandate. For example, the intensity of precautionary measures could be calibrated based on an animal's known vulnerabilities, such as a history of abuse or specific medical needs. This would allow for a more proportionate and defensible application, addressing the critique of the principle being overly rigid while still upholding its core protective aim.

Ultimately, these challenges do not invalidate Birch's framework but instead underscore the necessity of the "inclusive and informed democratic deliberation" he advocates for. Advancing this paradigm requires a collaborative effort among ethicists, veterinary scientists, shelter professionals, and policymakers to create evidence-based standards of practice. Such a dialogue is essential for refining the application of the precautionary principle, ensuring it can be implemented effectively and sustainably, and transforming it from a compelling ethical ideal into a practical foundation for animal protection policy.

6. Conclusions

This paper has critically examined Jonathan Birch's precautionary principle for animal sentiment, articulating its foundational tenets and exploring its significant potential to reshape ethical decision-making in the context of uncertainty surrounding animal welfare. The central argument advanced herein is that Birch's framework not only offers a robust theoretical underpinning for moral concern toward beings whose sentience is plausible, although not definitively proven but also provides a pragmatic methodology for its application. We have specifically proposed and elaborated upon the novel extension of this principle to the domain of companion animal adoption, demonstrating its capacity to foster more ethically defensible, proactive, and welfare-centric practices within this crucial area of human–animal interaction.

The analysis reaffirmed that Birch's conceptualization of sentience as the capacity for valenced experience and the introduction of the "candidate for sentience" as an entity deserving of moral consideration provide a vital ethical directive. This directive compels action to prevent gratuitous suffering even when absolute scientific certainty is elusive. The framework's epistemic and decision rules offer a structured pathway to translate this ethical imperative into tangible protective measures, moving beyond reactive responses to potential harm toward anticipatory safeguarding. In the context of companion animal adoption, these rules advocate a baseline assumption of sentience and vulnerability in common companion species, thereby mandating enhanced screening, counseling, and postadoption support mechanisms. Furthermore, the integration of precautionary clauses into adoption contracts—including provisions for monitoring and, if necessary, restitution—emerges as a concrete operationalization of this ethical commitment, transforming adoption from a mere transaction into a covenant of care.

While the implementation of such precautionary measures undoubtedly presents practical challenges, including increased resource demands on welfare organizations, potential impacts on adoption rates, and navigating adopter privacy, this paper concurs with the ethical imperative that these hurdles must be addressed rather than used as justifications for inaction. The profound ethical weight of preventing suffering and ensuring the long-term well-being of sentient individuals justifies the investment in and innovative adaptation of shelter practices. The principle of proportionality, which is central to Birch's framework and echoed in responsible implementation, remains key to balancing these concerns effectively.

The implications of adopting Birch's precautionary principle extend far beyond specific application to companion animal adoption. It offers a transformative lens through which to reevaluate human responsibilities toward a wide array of beings—from those in agricultural or research settings to novel entities such as advanced AI or brain organoids—where sentience is a pertinent, yet uncertain, attribute.

For the companion animal sector, embracing this principle signifies a paradigm shift toward a more profound and ethically consistent commitment to the lifelong welfare of animals. However, realizing this vision necessitates more than isolated efforts; it calls for systemic change. This includes the development and dissemination of standardized guidelines for "proportionate measures," robust policy support from governing bodies, and legal frameworks that recognize and uphold welfare-centric contractual obligations.

In the future, several avenues for future research and development are crucial. Empirical studies are needed to rigorously assess the long-term impact of precautionary adoption protocols on animal welfare outcomes, adopter satisfaction, and relinquishment rates. Further interdisciplinary dialog is essential to refine the criteria for "candidacy for sentience" and the practical application of "inclusive and informed democratic deliberation" in shaping these protective measures. Continued ethical and legal scholarship will also be vital in navigating the complexities of implementing such frameworks in diverse societal and cultural contexts.

In summary, Birch's precautionary principle for animal sentience, particularly when applied to areas such as companion animal adoption, is not merely an abstract ethical ideal but a compelling and practical call for action. It challenges us in transcending the limitations of current knowledge and in acting with foresight and compassion. By prioritizing the prevention of suffering and fostering a culture of enhanced responsibility, this approach provides an indispensable ethical scaffold for building a more just and humane society that genuinely recognizes and protects the intrinsic value of all sentient beings. The journey toward its full implementation will require sustained commitment, but the ethical imperative to embark upon it is undeniable.

7. Limitations, Implications and Further Research Directions

While Birch's precautionary framework offers significant ethical advancement for addressing potential suffering in cases of uncertain sentience, its application encounters certain limitations. Defining precise, universally accepted thresholds for what constitutes a "credible and nonnegligible possibility" of sentience or "proportionate" precautionary measures remains a complex challenge.

Moreover, the epistemic rule relying on taxonomic orders, while pragmatically useful, may oversimplify the diverse spectrum of sentient capacities. Specifically, in the context of companion animal adoption, implementing rigorous precautionary protocols can strain shelter resources, potentially reduce adoption rates if criteria become overly restrictive, and increase adopter privacy concerns regarding monitoring.

Nevertheless, the implications of broadly adopting such a principle are profound. It could fundamentally reshape ethical decision-making and policy development across diverse fields, including research involving human fetuses or brain organoids, the treatment of invertebrate animals, and the anticipatory governance of advanced artificial intelligence. Animal welfare, particularly companion animal adoption, fosters a shift toward proactive, ethically robust systems prioritizing long-term well-being over mere placement expediency. Consequently, this necessitates the development of standardized guidelines and stronger legal backing for welfare-centric practices.

Future research should therefore focus on several key areas. Empirical studies are needed to assess the tangible impacts of precautionary adoption protocols on animal welfare outcomes and relinquishment rates. Methodological advancements are

also crucial for developing refined, resource-efficient, and less intrusive means of assessing risk and ensuring welfare postadoption.

Furthermore, continued philosophical and ethical inquiry is essential to refine the operationalization of "candidacy for sentience" and "proportionate measures," especially concerning novel entities. Investigations into effective mechanisms for "inclusive and informed democratic deliberation" to establish these standards across different contexts would also prove invaluable for the framework's practical and just implementation.

Ethical Considerations

This research adheres to ethical principles in livestock research, does not involve livestock, and is under the supervision of the Vice rectorate of Research at Universidad Señor de Sipán.

Conflicts of Interest

The author declares that he has no financial conflicts of interest or personal relationships that could influence the work presented in this article.

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