

## Animal Sentience

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*Have you ever wondered what goes on inside the minds of animals? Animal sentience research is the scientific field that helps answer this question.*



### Do Animals Have Sentience?

Have you ever wondered what your dog or cat was thinking? Many people consider their companion animals to possess distinct qualities similar to their human peers. For instance, you may believe your cat has an introverted personality when compared to another cat whom you perceive to be outgoing and friendly towards all. For many, these distinctive personality traits may even extend to their pet snakes, fish, mice, or tarantulas. Nonetheless, whatever traits you recognize within your companion animal, you cherish and value them for their one-of-a-kind characteristics.

But what about the millions of other animals? What are they thinking? For instance, what about the animals which often serve our human uses? The obvious difference between our companion animals, compared to wild or farmed animals, is simply the amount of time we intimately spend with them. We take the time and intention to seek out our companion animals' unique qualities, as we often view them as a part of our family.

It is easy to refrain from associating the same qualities we see in our cats and dogs with those of the animals we consume or use for experimental purposes. Yet we cannot deny that nearly all animals have

the capacity to feel strong negative and positive emotions, possess unique personality traits, and understand the world around them in ways we may never understand.

### **What Is Animal Sentience?**

Animal sentience is [defined](#) as an animal's ability to feel emotions such as joy, pleasure, pain, and fear [3]. While some organisms can simply experience biological harm to their anatomy and functionality, sentient beings experience the [additional harm](#) of undergoing pain and suffering, which matters to them [1]. Furthermore, the experience of these feelings often shapes an animal's preferences and desires, leading to the development of unique personality traits.

It's important to differentiate cognition from sentience to better understand what the experience of sentience entails. [Cognition](#) refers to the mental processes that produce perceptions, memories, learning, computational skills, expectations, and similar faculties [2]. Cognition helps animals evolve to deal with their external world in better ways, while sentience helps animals understand and improve their internal environment. In most cases, animals possess certain degrees of [both sentience and cognition](#), leading to a unique and often misunderstood experience of life [2].

A common misunderstanding of animal sentience was largely influenced by [René Descartes](#) in the 1600s who believed all animals to be 'mechanisms' or 'automata', incapable of reason or pain, even comparing them to clocks [8]. This idea largely influenced both the public perception of animals and beliefs espoused by future influential thinkers that animals were merely driven by instincts. This set of beliefs remained dominant until the early 1800s when [Jeremy Bentham](#) became one of the first influential thinkers to defend the experience of animals and relate it to how they ought to be treated in a just society [8].

Only in the last several decades have publications in [animal sentience research](#) been highly recognized and accredited in the scientific community [1]. Through [indirect methods](#) such as preference observation, motivational testing, and understanding means of communication, scientists can determine the feelings associated with different stimuli [2]. Simply observing the [posture and behaviors](#) across species in different scenarios also leads to unique findings [4]. Lastly, [neuroscience](#) research also helps reveal how species' brain structures give way to their capacity for processing emotions like pain, fear, and joy [4].

### **What Animals Are Sentient Beings?**

While there is still debate over which animals are sentient as compared to the standards understood through our human experience, a modern [consensus](#) classifying all vertebrates, cephalopods, and arthropods as sentient beings has become the standard in the scientific community [1]. Furthermore, with the increase in animal sentience research from the 1990s through the present, scientific publications stating their clear finding of sentience among species have slowly expanded the interest and acceptance of this standard. Notably, The 2012 [Cambridge Declaration on Consciousness](#) marked the first formal scientific recognition of sentience among mammals, birds, and cephalopods. It stated that "the weight of evidence indicates that humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures, including octopuses, also possess these neurological substrates" [5].

Specific findings defying previous notions of ['unlikely' sentience](#) among animals include chickens displaying empathy, magpie birds grieving for their loved ones, and even insects exhibiting signs of stress and pessimism [4]. Furthermore, farmed animals display clear signs of [sentience](#), including achievement responses like excitement within cows, pain recognition in chickens who have been found to choose

medicated feed over non-medicated feed, and pigs' emotional and cognitive intelligence levels exceeding those of dogs [6].

### **What Animals Are Not Sentient?**

While animal sentience research is still early in the general scheme of scientific fields, to our current understanding, a few animals do not display a capacity for sentience. A common criterion for sentience recognition is a [centralized nervous system](#), which animals like Porifera, or sponges, do not possess [7]. Similarly, echinoderms (starfish, sea urchins, sand dollars, etc.) and cnidarians (jellyfish, sea anemones, corals, etc.) possess a nervous system, yet it is not centralized, therefore these species cannot be classified as [sentient](#) [7].

In recent years, most genus groups have been recognized for their sentience or lack thereof. Yet, this is not reflected in legislation across the world. Legislation and policies often reject the findings of sentience in one animal and uplift that of another, both denying the findings of the scientific community and skewing public perspectives as a result.

In addition to the lack of consistency in the legal world across most countries, there are still gaps in the research that form the basis for determining what rights are given to specific animals. Animal sentience research, especially in its early stages, is frequently accused of being '[mammal-centric](#)' [3]. This fault lies in our innate human biases which find natural similarities, and therefore sympathies, towards fellow [mammals](#) [3]. A species' status within our society, its' common human use, attractiveness, and perceived intelligence can all impact our [sympathy](#) toward animals [3]. This is evidenced by the lack of research on animals like fish and insects, who differ greatly from humans and are only recently beginning to be represented in scientific literature.

### **Why Animal Sentience Is Important**

Animal sentience is central to the idea of the animal rights movement, as one's general welfare is negatively affected by feelings of pain, fear, and sadness. This [idea](#) was examined and popularized by Ruth Harrison's 1964 book "Animal Machines" and its' follow-up investigation by the British Government called the "Brambell Report" [2]. These publications gave the public a glimpse into the lives of animals in the agricultural system, notably the lives of calves in veal production and chickens subjected to battery cages. Soon after these findings, assessing animal welfare became simply a matter of finding a reliable indication of stress among animals. Therefore, animal sentience research began to increase in the wake of these changing perceptions. Today, there is consensus that sentience is the foundation of animal protection, and further research in this area should therefore be regarded with the utmost importance. Animal sentience research also helps to determine how laws have been written and could be in the [future](#) [1].

One of the first formal recognitions of animal sentience in law was included in the [European Union Constitution](#) of 1997, which simply acknowledged the general rights of 'sentient beings' [1]. Yet, the European Union's 2007 [Treaty of Lisbon](#) formally declared that "the Union and the Member States shall, since animals are sentient beings, pay full regard to the welfare requirements of animals" [1]. While there continue to be stronger legal protections granted to certain animals across many countries, those laws have largely been granted to a small fraction of species.

Though most research agrees that vertebrates are considered sentient, animals within the vertebrate category are still often separated in law. In the United States, there are no federal laws protecting agricultural animals. While the [Animal Welfare Act](#) extends to animals in research for human purposes, it

explicitly excludes all farm animals used for food, fur, and hide [9]. Unfortunately, this is often due to [lobbying](#) efforts from industries that rely on the exploitation of animals for human use [1].

## Conclusion

Animal sentience research is still nascent. Clear conclusions have been made that most all animals experience sentience, yet these conclusions are not widely reflected in laws regarding those animals. Furthermore, while animals receive considerably more awareness now, enormous gaps remain in studies devoted to the importance and extent of positive experiences for animals. An [analysis](#) of all animal sentience research found that only 154 out of the 2,546 studies analyzed referred to positive states in animals [3]. While it is important to expose the effects of negative experiences on animals, it is just as important to note the benefits associated with an animal's positive experiences. By doing so, it is possible to prevent the physical and emotional damage faced by so many animals, while also working towards the betterment of those animals' wellbeing.

Today, we are quite familiar with the idea that we are not the only ones experiencing our world with cares, fears, desires, and love. We see this reflected in film, traditions, social norms, and most commonly in our homes with our companion animals. Instead, the complexity we face today is granting the same sentiments we give to our companion animals, and often even wild animals, to those who may be on our dinner plate.

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