

Analyze the Importance of Animal Mental Health - Take Captive Animals as an Example

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Abstract. Animals, like humans, can also experience mental health problems, a viewpoint that has been previously overlooked or denied. In the context of societal development, there is a growing trend of keeping animals in captivity for various reasons. However, regrettably, there have been minimal efforts made towards enhancing the mental well-being of these captive animals. This essay aims to comprehensively explore the significance of animal mental health and its profound impact on both animal welfare and different aspects of human society. Furthermore, it provides compelling scientific justifications for prioritizing the promotion of animal mental health, with a specific focus on the detrimental effects of captivity on their psychological well-being. The essay also emphasizes the crucial role of animal mental health in fostering harmonious coexistence between humans and animals, promoting environmental conservation, and driving social progress. By shedding light on these interconnected domains, this essay aims to contribute to a more holistic understanding of the importance of animal mental health and advocate for its prioritization in various societal, ethical, and scientific contexts.

Keywords: Animal behavior, animal psychology, animal welfare, environmental enrichment, captivity.

1. Introduction

Nowadays, the mental health of animals often goes overlooked across various domains. Whether it pertains to wildlife, pets, or livestock, it is often underestimated or incorrectly assumed that animals do not have mental health at all. However, it is of utmost importance to develop a deep understanding and concern for animal psychology, not only to improve the overall well-being of animals, but research on animal psychology and behavior can also provide a foundation for exploring human psychology. Society currently faces numerous challenges, including the detrimental impact of animal husbandry, the conservation of wild animals, and ethical dilemmas associated with animals, and these pressing issues must be addressed. Valuable insights can be gained through the study of animal mental health to help people address these challenges. Exploring the psychology of animals allows humans to better comprehend their cognition, behavior, and thought processes. Unraveling these mysteries can enhance the care and protection of captive animals, leading to improved animal welfare[1]. Simultaneously, understanding animal mental health strengthens the bond between humans and animals, facilitating better coexistence while reducing harm incurred during interactions. Furthermore, comprehension of animal mental health contributes to maintaining ecological balance and preserving species diversity. With the ever-changing climate and environment, many animals find their living conditions altered, which can lead to mental stress and psychological problems. These, in turn, may lead to abnormal behaviors and habits that disrupt the equilibrium of entire ecosystems. Overall, the significance of animal mental health resonates across multiple dimensions. It serves as a crucial factor in promoting harmonious coexistence between humans and animals, fostering environmental conservation, and driving social progress.

2. Definition and background about Animal Mental Health

2.1. Mental health and mental disorders

Mental health is characterized by stable and healthy emotions, good control and adjustment of one's behavior, and the absence of long-term negative emotions such as anxiety and depression. It is determined by various factors, including personal physiological factors, social and environmental influences, and family and interpersonal relationships. Mental health is vital for individuals as it forms the foundation for living a fulfilling life, self-realization, establishing relationships, and personal growth. When an individual's psychological condition deteriorates, they may develop mental disorders, which significantly impact cognition, emotional regulation, and behavior, causing immense suffering and inconvenience. Alarmingly, it is estimated that approximately one in eight individuals worldwide suffer from mental disorders[2,3].

2.2. Animal senses

To consider the mental health of animals, it is essential to examine whether animals possess their thoughts and emotions akin to humans. Questions such as whether or not animals are conscious remain a controversial topic in the fields of zoology, psychology, and philosophy. However, it is still widely accepted that the majority of animals experience emotions and possess certain cognitive abilities that enable them to perceive positive and negative feelings, which are fundamental for their survival. In fact, there is substantial evidence indicating that all vertebrates possess pain-sensing systems. Darwin was one of the pioneering scientists who acknowledged the existence of animal thought and emotions. Throughout history, numerous experiments and findings have demonstrated the cognitive abilities of animals. Astonishingly, some animals, such as chimpanzees, goats, and dolphins, have been found to exhibit self-awareness. Animal species with higher levels of intelligence display emotions similar to those of humans in various aspects, including offspring's attachment to their mothers and the expression of mourning behavior following the loss of companions. While it is unjust to analyze animal thoughts and emotions solely through the lens of human standards, the aforementioned evidence is still sufficient to demonstrate that negative emotions and feelings can adversely impact the lives of the vast majority of animals[4-6].

3. Scientific Justifications for promoting animal mental health

The worst affected population in terms of animal mental health issues is found among captive animals. These animals have close associations with humans, as they are either kept as pets in human homes, residing in zoos where they are raised and bred under human care, or confined to breeding farms awaiting their eventual demise. These animals have been kept by humans for their various self-centered reasons, with little consideration given to their mental well-being [7]. Many individuals believe that attending to and safeguarding the mental health of animals implies granting them the same moral status as humans. Exploring this matter entails grappling with numerous philosophical concerns. However, in reality, the situation is far less intricate, and promoting animal mental health can actually result in a mutually beneficial outcome for both humans and animals from a scientific standpoint.

Every animal possesses innate natural instincts that have evolved over many thousands of years and are inherent to their species. However, the captive environment cannot fully replicate the wild environment, resulting in a significant suppression of these instincts. Using zoos as an example, the first issue is the stark contrast between the limited space and overcrowding in the captive environment compared to the expansive and diverse wild habitats[7]. In the wild, the territory of an adult brown bear is approximately 100-1000 square kilometers, while most zoos can only provide a few hundred square meters for their activities, which falls short of simulating a normal wild environment[8]. Furthermore, in the captive environment, everything is controlled by humans. Animals lack access to a normal population, prey, or natural predators, which deprives them of engaging in a range of

instinctive behaviors such as foraging, evading predators, and establishing territories. Consequently, their daily routines are reduced to monotonous tasks of eating, sleeping, and excreting. As a result, animals are unable to express their true nature, significantly impacting their behavioral diversity. Moreover, social relationships among captive animals are easily disrupted, leading to instances of bullying, oppression, and constant loss of companions. These experiences impose tremendous pressure and could cause serious psychological trauma to the animals[9-13].

Just like humans who experience depression, animals in such environments are also prone to significant physical and mental health issues. Research conducted by Dr. Bob Jacobs of the Neurological Research Institute at the University of Colorado indicates that living in captivity can lead to brain damage in large mammals. For instance, elephants and killer whales, when kept in captivity, lack the necessary daily activities and social interaction, resulting in a higher likelihood of developing various diseases compared to their counterparts in the wild. These animals, which are naturally gentle, become irritable and display abnormal behaviors in captivity, sometimes even resorting to attacking their keepers[14-17].

The living conditions for livestock in modern industrial farms are even more dismal. They are confined to spaces where their activities are restricted to eating, sleeping, and excreting. In most animal farms, regardless of whether they house cows, pigs, or poultry, the allotted living space only allows for standing and lying down, even without enough space to turn around. These animals grow and spend their entire lives in such conditions. Despite the gradual adaptation of these common livestock to human captivity and consumption through artificially selected genes, they still endure suffering and torment within these harsh conditions, as they possess their own innate natural instincts. Scientific studies have confirmed that overcrowding in animals causes similar distress as that experienced by humans when they are imprisoned and have their basic activities disrupted. The pursuit of maximizing profits in modern breeding facilities has unfortunately become alarmingly prevalent, resulting not only in animal suffering but also causing irreparable damage to the environment. Presently, society is growing increasingly concerned about environmental issues and animal welfare. Addressing the natural behaviors, social needs, and mental well-being of animals will be pivotal in resolving these pressing problems[7,11]

4. Abnormal behaviors caused by animal mental diseases and the harm caused by these behaviors

Stereotypic behavior is the most common abnormal behavior observed in captive animals. Stereotypic behavior can be defined as easily identifiable, purposeless, repetitive patterns of behavior that usually do not change. Scientific research has identified three main categories of stereotypical behavior: repetitive pacing behavior, high-frequency repetition of the same behavior, and meaningless chewing behavior. For example, carnivorous animals such as lions, tigers, and wolves often exhibit pacing in circles when kept in captivity, while pandas engage in repetitive and meaningless chewing behavior, and killer whales may hit walls with their bodies in aquariums. The World Animal Protection Association and other institutions have also released imagery that demonstrates the challenging conditions faced by captive elephants. Captive elephants commonly display severe stereotypical behaviors, including pacing back and forth and repeatedly shaking their heads and bodies. Additionally, a separate study reveals that captive lions spend an average of 48% of their time pacing and do not rest. Animal protection expert Wang Song has emphasized that stereotypical behavior is particularly likely to occur in monotonous and restricted captive environments [14,17,18]

Sham-chewing is another prevalent stereotypical behavior observed in captive animals, unlike ruminant animals such as cows who have a physiological need to chew food repeatedly, animals subjected to captivity often display prolonged and purposeless chewing behavior. Studies indicate that pigs on farms spend around 90 minutes sham-chewing every eight hours. Similarly, a few pandas

in zoos have also been observed producing white foam in their mouths as a result of sham-chewing. [19].

Another prevalent abnormal behavior is excessive grooming, which is commonly observed in captive primates, birds, and domestic cats. When natural instincts cannot be fulfilled, and animals experience excessive stress and loneliness, they may redirect their focus towards their own bodies, resulting in behaviors reminiscent of obsessive-compulsive disorder. Excessive hair grooming can lead to hair loss, increasing the risk of developing skin diseases. In the most severe cases, animals may even engage in self-mutilation behaviors, continuously tearing out their hair and causing harm to themselves. It is worth mentioning that animals with higher levels of intelligence, such as parrots, chimpanzees, elephants, and killer whales, are often more prone to exhibiting self-mutilation behavior [6].

Many people hold the belief that animals in captivity generally experience longer lifespans, thereby suggesting the benefits of captivity. However, when mental health, physical activity, and social needs are neglected, animals are confined to a monotonous existence of solitude and sorrow until their eventual demise. Such a life, in comparison to the freedom of the wilderness, can hardly be considered ideal. Human-caused environmental and ecological crises have led to the loss of habitats and the looming threat of extinction for numerous animal species. Presently, humans have become cognizant of this reality and are making efforts to rectify the situation. While fulfilling the basic physiological requirements of animals is essential, equal attention must be given to promoting animal mental health. Thus optimal results can be achieved through the protection of endangered animals and effective management of zoos[10,17].

Captive chimpanzees

The present article's viewpoint is strongly supported by recent research by Dr. Lucy P. Birkett and Nicholas E. Newton-Fisher conducted on captive chimpanzees, which demonstrates the prevalence of serious behavioral abnormalities among these animals. These abnormalities are believed to stem from mental health issues, prompting the researchers to conduct long-term observations and studies on 40 captive chimpanzees from various zoos in the United States and the United Kingdom. Despite their diverse early experiences, all of the chimpanzees were later relocated to zoos. As a result of this comprehensive investigation, the researchers were able to gather detailed data on the frequency, diversity, and duration of abnormal behaviors exhibited by these captive chimpanzees[13].

The results of the observations indicate that captive chimpanzees display severe abnormal behaviors, including repetitive body shaking, feces consumption and self-mutilation, which bear resemblance to manifestations of mental illness in humans. Researchers posit that these abnormal behaviors might be indicative of a compromised mental well-being [13]. Among these behaviors, social deprivation is regarded as the primary factor contributing to psychological trauma in chimpanzees, and the experience of captivity can have long-lasting effects on them. However, it appears that if chimpanzees are reintroduced into their natural habitat and allowed to live among similar populations, their abnormal behaviors tend to diminish gradually over time[15].

The researchers conducted a thorough observation and identified a total of 37 different types of abnormal behaviors. They also examined the potential influence of variables such as gender and age on these behaviors in captive chimpanzees. The final results revealed that all 40 captive chimpanzees exhibited a minimum of 2 abnormal behaviors, with the most prevalent abnormal behavior being the consumption of feces. The most extreme individuals displayed abnormal behavior in over 60% of their daily activities. While significant variations in the frequency and duration of abnormal behavior were observed among different chimpanzees, variables such as gender and age did not show a significant impact on such behavior. Concerningly, out of the 37 abnormal behaviors observed in this study, only 17 were occasionally observed in wild chimpanzees[13]. The seclusion of captive chimpanzees from socialization in zoos, coupled with a standardized living environment and controlled diet, poses a severe threat to their mental well-being. Chimpanzees, being highly intelligent, emotional, and possessing self-awareness, are the animals that most closely resemble humans. There is no doubt that captivity inflicts significant suffering upon them. However, as stated previously in

this article, the mental health of animals has not received the attention it deserves, and it is imperative that taking preventive and remedial measures.

While the current state of animal mental health may not be promising, it is encouraging that research has identified effective strategies to enhance and safeguard animal well-being. One significant approach is environmental enrichment. By enhancing the living conditions of captive animals, such as expanding their living space, incorporating diverse terrain and vegetation, and replicating natural habitats to the extent possible, the overall quality of life of these animals can be greatly improved, subsequently enhancing their mental health. Modifying feeding practices is also an effective method. Research suggests that the primary reason behind the display of stereotypical behaviors in captive animals is their inability to engage in innate functional behaviors, such as complex foraging processes. This issue can be addressed by introducing greater difficulty and unpredictability in obtaining food, such as utilizing irregular feeding schedules and offering live or undivided prey to carnivores, thus making their hunting experiences more challenging. Furthermore, for zoos, reducing visitor traffic during the same time periods is also an effective way. The presence of tourists can create stress for most animals, leading to psychological trauma, behavior, and abnormal conduct. Additionally, it is crucial for humans to consider whether certain animal species, such as chimpanzees and elephants, which possess self-awareness and emotions, are truly suitable for captivity. This consideration serves to inform the scientific planning of captivity and animal conservation efforts[10,12,17].

5. Conclusion

In conclusion, the mental health of animals should not be overlooked or underestimated. Understanding and addressing animal psychology is crucial for improving animal welfare and addressing pressing issues such as animal husbandry, wildlife, and ethical dilemmas related to animals. The study of animal mental health provides valuable insights that can help people address these challenges effectively, leading to improved animal welfare. Additionally, understanding animal mental health strengthens the bond between humans and animals, facilitating better coexistence and reducing harm during interactions. Furthermore, comprehension of animal mental health contributes to maintaining ecological balance and preserving species diversity, especially in the changing climate and environmental conditions. Therefore, promoting animal mental health is a crucial factor in promoting harmonious coexistence between humans and animals, fostering environmental conservation, and driving social progress. People must take preventive and remedial measures to enhance and safeguard animal well-being, such as through environmental enrichment and modifying feeding practices, in an effort to build a society that values and respects the mental health of animals.

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