

A Review of Liger and Tigon Based on Posthuman Bodies Theory

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Abstract: Human society is moving toward a posthuman era as theories by scholars such as Rosi Braidotti, Donna Haraway, and Keith Ansell Pearson gain attention. Meanwhile, hybrid creatures such as Ligers and Tigons captivate public interest. However, no study has connected these hybrids to posthuman body theories. This literature review examines how Liger and Tigon articulate or challenge these theories, reflecting humanity's transition to the posthuman era. The research argues that these human-engineered hybrids break species binaries yet reflect human exceptionalism, as they serve human interests and demonstrate humanity's control over nature. However, while Liger and Tigon support theories of biotechnological vitalism and human enhancement, their genetic defects and health issues reveal the limitations of human intervention. Liger and Tigon indicate that the posthuman vision of using biotechnology to enhance the body has limitations. Although biotechnology can overcome biological constraints to a certain extent, it does not constantly enhance the body but can even hurt it. Additionally, although these hybrids blur the boundaries between nature and culture, public attitudes towards them reflect the persistence of the nature-culture binary. People still regard Liger and Tigon as human property despite their representation of the interaction between humans and animals in shaping identities, which contradicts Haraway's theory of equality between humans and companion species. Ultimately, this review argues that while Liger and Tigon break species boundaries, they also highlight human exceptionalism, suggesting that the collapse of the species binary does not necessarily lead to equal relationships between humans and other creatures.

Keywords: Posthuman bodies, Hybrid creatures, Human enhancement, Nature-culture binary, Companion species

1. Introduction

Globalisation, technological advances, and environmental shifts are driving a re-evaluation of humanity's role within nature and technology, moving society into a posthuman condition [1]. According to Braidotti [1], humanity is redefining itself beyond traditional boundaries. Posthumanism is a cultural and political movement that questions the distinctions between human culture and nature. The emergence of hybrid creatures, such as the Liger and Tigon, which result from advances in biotechnology and human involvement in creating new life forms, connects closely with posthuman theories. However, there is still a lack of research or critical analysis that explores the link between posthuman body theories and hybrid creatures. This review will take Liger and Tigon as a

case study and employ a literature review to critically analyse the link between man-made hybrids and posthuman theories. It explores ethical debates and how these hybrids illustrate and challenge posthuman body theories, focusing on scholars including Rosi Braidotti, Donna Haraway, and Keith Ansell Pearson. This review will help explore *post-human bodies theory* in greater depth by employing specific examples and critically analysing how these ideas take shape in real-world contexts. By connecting a specific case study with post-human body theories, people can better recognise both the strengths and limitations of existing posthuman theories. This approach not only deepens understanding but also helps drive the further development and refinement of Posthumanism.

2. Liger and Tigon

Hybrid animals are animals whose parents come from two different species [2]. Ligers and tigers are hybrid offspring of tigers and lions and have mixed characteristics. Although both are hybrids of tiger and lion, it is worth noting that liger and tigon have different biological characteristics and habits [3]. Ligers are the offspring of male lions and female tigers and are the largest of the big cats, exceeding the size and weight of both tigers and lions. Tignons are the offspring of male tigers and female lions, usually the same size as their parents, with tiger-like spots or stripes, and are much smaller than ligers [4]. Liger and Tigon are the results of human intervention and animal hybridisation experiments [5][6] involving the use of new genetic tools and biotechnology, such as artificial insemination [7][8][9]. Due to genetic mismatch, ligers and tignons are infertile, often with multiple inborn diseases, higher mortality, and shorter lifespans, with the majority dying as cubs [4] [10]. For example, ligers, due to their large size and weight, experience harmful stress on their organs, and the mother tiger is more likely to die during childbirth [11], often requiring a caesarean section [10].

Ligers and tignons only appear in captivity and rarely produce in the wild. This is because the habitats and lifestyles of lions and tigers are vastly different, and as they belong to different species, they do not naturally interbreed [11]. While some breeders believe that the purpose of hybridisation is to increase the conservation of tigers and lions, animal experts argue that the conservation excuse is weak. There is no evidence that the existence of hybrids is beneficial to the conservation of lions and tigers. Ashley Fruno, the senior campaigner for People for the Ethical Treatment of Animals, argues that the cultivation of ligers and tignons is only for zoos to attract visitors for commercial profit [6]. Dhavala [4] and Surugue [11] also claim that liger and tigon are created for entertainment and financial gain in general. The following section will further discuss debates and ethical issues raised by Liger and Tigon.

3. The debates and ethical issues

3.1. The challenge to the species concept

Liger and Tigon challenge the definition of species. According to the Encyclopedia Britannica, in biology, a species refers to a classification of related creatures that share common characteristics and that members of the same species can interbreed [12]. Lions and tigers belong to two different species; they differ in appearance, sound, lifestyle, and habitat, and they do not naturally mate [3][11]. However, despite significant differences in physical characteristics, lifestyles and habitats, lions and tigers can interbreed and produce offspring in artificial environments. This indicates two points. First, the existence of liger and tigon blurs the species boundary between lions and tigers, making it tricky to separate them biologically. Secondly, the species classification of liger and tigon is also a complex problem. According to the research in the previous section, liger and tigon have significantly different biological characteristics from lions and tigers and do not occur naturally in the wild but only in man-made environments [4] [11]. Therefore, they are neither lions nor tigers and cannot be classified as their parent species.

However, liger and tigon are also unable to establish a new species. According to Donna Haraway, reproductive capacity is the basic requirement for individuals of the same species [13]. High school biology teaching also emphasises the importance of interbreeding capacity, with the notion that a species is produced from individuals who can successfully interbreed [3]. It believes that even if two creatures are highly similar if they cannot interbreed, they must belong to distinct species. However, both liger and tigon are only fertile for females and infertile for males, which means they cannot interbreed to produce offspring and cannot meet the basic demands of a species. To further complicate the situation, liger and tigon females are fertile and can mate with male tigers or lions to produce offspring [4]. As previously stated, the two hybrids are not the same species as tigers and lions due to differences in biological characteristics and habitats. This further challenges the definition and basic requirements of species, as this case illustrates the possibility of different species interbreeding. To summarise, despite having the same biological features and habitats, liger and tigon cannot create offspring since the males are infertile. Therefore, the population cannot continue to form a species. Similarly, although female ligers and tigons can both mate with male lions and tigers to produce offspring, their biological characteristics and habitats are highly different, and hence, they are not the same species. Therefore, the existence of liger and tigon poses a great challenge to the concept of biological species.

3.2. The fear of human-animal hybrids

Liger and Tigon challenge Essentialism and raise fears of human-animal hybridisation. The essentialistic view argues that all species are unchangeable and that there must be necessary and sufficient characteristics shared among members [14]. However, based on the discussion in the previous section, liger and tigon have challenged the definition of species and blurred the traditional clear species boundary between lion and tiger, thus challenging Essentialism. Scholars Palmer, Sommer and Msindai [14] argue that they not only disrupt biological categorisation but also further inspire fear of imagined human-animal hybrids, such as the Centaur and the Sphinx. This is supported by Haddow's survey data, which reveals concerns about crossing species boundaries [15]. The fear and disgust of human-animal hybrids derive mostly from the fact that they challenge human exceptionalism and remind people that humans are a species that is not fundamentally distinct from non-human creatures [16]. According to the Posthuman Glossary article on Extinction, human exceptionalism can trigger concern and existential anxiety about extinction [17]. Yuval Noah Harari even mentions in his 2015 book *Sapiens: A Brief History of Humankind* that there was a time when different human species coexisted in the ancient past and that Homo sapiens interbred with Neanderthals. Up to four per cent of the genes of modern European and Asian populations may come from other species [18]. Humans used to think of themselves as distinctly different from other species and as the highest beings on Earth [19]. However, the fact that humans interbred with Neanderthals destroyed the arrogance of being superior. In addition, Harari points out that the existence of multiple human species and human-animal hybrids could lead to issues such as increased racial discrimination and even species extinction, which would further cause human survival panic and anxiety.

3.3. Damage to animal rights and welfare

The breeding of liger and tigon is considered unethical and has caused widespread debate about animal rights and welfare. Numerous animal rights groups and activists have criticised the breeding of liger and tigon. For example, Lin Tai-jing, a scientist from the Taiwan Society of Environmental and Zoology, criticises such hybridisation as unethical because it is the result of human intervention and violates the laws of nature [6]. Moreover, ligers and tigons are born with inborn defects and diseases due to mismatched gene expression and are more likely to be obese, have weakened immune

systems, and have higher mortality rates [4][10]. Furthermore, liger and tigon performance appears to be a mixture of tiger and lion behaviours [20]. Because liger and tigon differ from their parent species in social interactions, their social adaptation is disrupted, resulting in their incapacity to socialise generally with their parent group [21]. Because of these intrinsic flaws, liger and tigon can only survive in man-made surroundings and, as a result, cannot be released into the wild [11]. PETA's Fruno criticises that breeding animals that cannot survive in the wild for commercial profit and entertainment is inhumane confinement of animals that significantly harms animal rights and well-being [6]. Surugue [11] also discusses the possibility that some organisations breed Liger and Tigon but fail to provide them with proper care, which she criticises as horrible for the animals. Finally, liger and tigon are not legally protected under the Endangered Species Act 1973 because they cannot form species [10]. This indicates that their rights and well-being are not guaranteed, and owners are unrestricted to abuse or murder them. In summary, the breeding of liger and tigon is considered a serious violation of animal rights and welfare and, therefore, immoral because they are born with genetic defects that can only be kept in captivity by humans and are not legally protected.

4. Discussion

4.1. Human Enhancement and bio-technological Vitalism

Liger and Tigon articulate posthuman bodies primarily through the demonstration of the "human enhancement" idea. According to Braidotti [1], posthumanism is an exploratory movement that attempts to discover the potential of the body with the assistance of advanced biotechnologies. The transhumanist idea of experimenting with medicine and biotechnology to intervene, alter and enhance the body is central to posthumanism. Under this concept, the body can be shaped or altered freely based on human desires and designs [22]. Furthermore, it is assumed that nature can be controlled and modified through various methods such as biotechnology and human intervention, which indicates people's utopian expectation of overcoming natural animal limitations through science and technology [23]. This idea is also called bio-technological vitalism by Keith Ansell Pearson. The concept of bio-technological vitalism highlights the potential of biotechnology and believes that biotechnology and bioscience can change and enhance the essence and capacity of life, that is, create stronger and more evolved forms of life. Supporters of this theory argue that biotechnology can modify and enhance the functions, characteristics, and capabilities of living organisms, even beyond existing life forms in nature [24]. Walter Truett Anderson supports this view in his book *Evolution Isn't What It Used to Be*, suggesting that humans can control evolution through technology [25].

According to a review of some forum content [26], stories such as the film *Napoleon Dynamite* [27], zoos, and promotional content for liger and tigon on several websites [28][29], liger and tigon are conceived as an evolution of lions and tigers. People imagine they will combine the strengths of lions and tigers [30], become larger, healthier, and stronger, and be the most powerful beasts on earth. This reflects the idea of bio-technological vitalism, in which people expect to control nature and evolution through human intervention to enhance the body. Liger and Tigon demonstrate the possibility of this idea because they violate the boundaries of traditional biological species. Humans have created novel species that do not exist in the natural world, combining the characteristics of lions and tigers as one would expect, demonstrating the possibility that humans can control the direction of evolution through biotechnology. Thus, the successful breeding of tigons and ligers exemplifies the idea of a posthuman 'malleable body' and the possibility of humans exploiting biotechnology to overcome their limitations [22][23].

However, in reality, ligers and tigons mostly have inborn defects and social adjustment disorders [21]. Even though they are occasionally fortunate to produce healthy ligers and tigons, the animals remain infertile [28]. Liger and Tigon's bodies have not been enhanced but weakened more than their

parents, suggesting that while posthuman ideas about evolution break with traditional linear theories of evolution, humans cannot control evolution. This illustrates the failure of human expectations to enhance the body through biotechnology and proves the limitations of the theory of human enhancement, namely that biotechnology-mediated evolution is unstable [1]. It is also interesting to note that some websites, such as Raza [29] and Ligerworld [28], still advertise and describe the liger and tigon as perfect hybrids without mentioning or even strongly denying that genetic mismatches can cause inborn defects. This strong promotion of the fortunate minority and the attitude of avoiding talk of genetic defects shows the obsession of some people with the desire to control nature and evolution and the expectation and arrogance of humans to surpass nature and become rulers of the world.

In addition, although biotechnology has the potential to allow humans to transcend limitations to some extent [24], the issue of chaotic identity and social inequality that comes with it requires attention. Keilly Swift, in her novel *The Tigon and the Liger*, describes the problem of the character being excluded and abused by both of his parents' races because of his mixed blood [31], reflecting the concern of unconfirmed identity. Harari [19] also cites the example of hybridisation between *Homo sapiens* and Neanderthals, suggesting that hybridisations could lead to greater racial discrimination and even genocide, which is a consequence of exclusion due to different identities. Pearson [24] also criticises bio-technological vitalism from the standpoint of identity, claiming that it will complicate the understanding of human identity. He questions whether individuals with altered physical traits, abilities, and cognition are still human. Furthermore, Pearson argues that excessive dependence on biotechnology can increase social inequality. Due to the high cost and resource constraints of biotechnology, its use is the privilege of the wealthy elite, which can aggravate social class polarization and the solidification of wealth. In addition, racial discrimination, gender inequality and geography may also prevent marginalised groups from accessing biotechnology equally [24]. In conclusion, although biotechnology can assist humans in overcoming limitations, its consequences are unpredictable, and biotechnology intervention may result in more ill bodies rather than stronger ones. Furthermore, identity confusion and increased social inequity pose significant challenges to the implementation of biotechnology vitalism.

4.2. Nature-culture continuum

Ligers and Tignons demonstrate the rationality of the nature-culture continuum notion proposed by Rosi Braidotti [1]. Liger and Tigon cannot survive in the wild, they can only be born in captivity [11] and are, therefore, the product of human intervention. This artificial hybridisation has blurred the line between human society and the hybridisation promoted by nature [14] and is thus proof of the breakdown of the binary between culture and nature. This demonstrates the post-naturalistic assumption of the nature-culture continuum proposed by Rosi Braidotti in her 2013 book *The Posthuman*. This notion opposes the classic social constructivist method, arguing that there is no longer an absolute separation between the given (nature) and the constructed (culture) in the post-human period [1]. However, interestingly, people have different attitudes towards natural and artificial hybridisation [14]. Natural hybrids are considered normal and acceptable, while artificial hybrids such as tignons and ligers are opposed and criticised. Such an opposite attitude towards the natural drive and artificial intervention is also the embodiment of the binary opposition of nature and culture.

4.3. Breaking of human exceptionalism

Liger and Tigon illustrate the collapse of human exceptionalism. Human exceptionalism believes that humans are the most special creation and distinctive beings, superior to all other non-human species

[19]. According to the Cyborg theory proposed by Donna Haraway in *A Cyborg Manifesto*, a prominent feature of the post-modern moment is the breaking of binary opposition, and each individual is a hybrid with the intervention of technology, that is, a Cyborg. In the post-human era, the binary boundary between species has been broken down by biotechnology, and there is no longer a clear boundary between humans and non-human animals, and human exceptionalism has collapsed [1][32]. As hybrid animals born with human intervention, Liger and Tigon are not only a mix between species but also a mix of nature and culture, hence cyborgs [1]. Their presence is a sign that the boundaries of species are breaking down. The fear they have raised about human-animal hybridisation also reflects the collapse of human exceptionalism.

However, paradoxically, liger and tigon are also products of human exceptionalism. Liger and Tigon exist because of human intervention based on the demands of entertainment and commercial interests. Such unscrupulous intervening and experimentation on nature and creatures based only on human preferences and interests indicate humans' arrogance in believing they are the rulers of the planet. Thus, while Liger and Tigon represent the dissolution of the binary opposition of boundaries of nature and culture, human and non-human, they also represent the idea of human exceptionalism. This demonstrates that the breakdown of the biological boundary of binary opposition is not necessarily directly connected to the breakdown of human exceptionalism. The review recommends that the relationship between the breakdown of binary opposition and human exceptionalism requires more careful consideration.

4.4. Companion species

Liger and Tigon are an embodiment of Donna Haraway's companion species. In the conversation between Annie Potts and Donna Haraway, Haraway introduces the concept of companion species and explores the relationship between humans and animals. Companion species are common organisms in the human and animal worlds that can be discovered in locations such as homes, laboratories, fields, zoos, parks, wildlife sanctuaries, and farms [13]. In *the Companion Species Manifesto*, Donna Haraway offers her perspective on companion species, arguing that humans and animals are not separate but intertwined in a complicated pattern of connections. The crucial role of companion species is to demonstrate the mutually dependent and co-evolutionary features of humans' and animals' interconnected relationships [9]. Haraway opposes the perspective of animals as mere objects or property, arguing that humans and animals have historically influenced and formed each other's identities [13]. According to the definition of companion species, Liger and Tigon are companion species since they exist in human captivity and can be touched in zoos. Liger and Tigon violate human exceptionalism and essentialism, causing people to be afraid of becoming animals and losing the privilege of being the supreme ruler of all things in the world, as well as being confused about what is human [16][19][14]. Therefore, Liger and Tigon reconstruct human identity, supporting Haraway's idea of the companion species.

Liger and Tigon also demonstrate the theoretical limitations of Haraway. Liger and tigon are bred primarily to fulfil human curiosity and commercial interests rather than to ease the suffering of humans or other animals in laboratory research [4][13]. The lives of these animals are commercialised, and they are still considered zoo property, indicating that humans have superior authority over animals. To make matters more serious, ligers and tigons do not meet the standards for being species and are consequently not legally acknowledged or protected [10]. Under such conditions, animals' rights are not guaranteed at all, and they are turned into commodities for entertainment to be imprisoned and exploited by humans [6], which strongly reflects the unequal power between humans and non-human animals and is a typical embodiment of human exceptionalism, which is incompatible with Haraway's idea of human-animal equality. It is also debatable whether liger and tigon are companion species, as they do not occur naturally but only in manufactured surroundings. They are

such rare creatures that they can hardly be described as ‘ordinary beings in encounter’ [13]. To summarise, even though liger and tigon interactions with people have challenged the notion of humans and fluctuated human identity, they are still considered property. Furthermore, humans continue to have greater privileges over these creatures, and the concept of human exceptionalism persists. As a result, ligers and Tigons both illuminate and contradict Haraway's companion species concept.

5. Conclusion

This review examines how Liger and Tigon—a lion-tiger hybrid created through human intervention—relate to post-human concepts. Haraway's idea of cyborgs suggests they challenge the human-animal binary and question human exceptionalism. However, the creation of these creatures for human interests paradoxically upholds human dominance over animals and symbolises human exceptionalism. Second, liger and tigon, which only exist in captivity, are evidence of humankind's success in overcoming nature's biological constraints to create new life forms based on human expectations and desires. This supports the thesis of biotechnological vitalism and Rosi Braidotti's theory of human enhancement, yet their genetic issues reveal the instability of human-controlled evolution. Furthermore, according to Pearson, such biotechnological interventions may harm human identity and social equity, a risk also highlighted by Harari's concerns about identity and discrimination.

Third, artificial hybrids blur the distinction between man-made and nature-driven hybrids, confirming Braidotti's nature-culture continuum argument. However, society's fear of them indicates the opposite attitude towards nature-driven and man-made hybrids, thus reflecting the nature-culture binary. Finally, the confusion caused by the collapse of species barriers supports Haraway's idea that animals and humans interact and shape each other's identities as companion species. However, Liger and Tigon remain zoo property and inferior to humans, contradicting Haraway's notion of an equal relationship between humans and companion species.

In conclusion, ligers and tigons challenge the human-animal binary while paradoxically upholding human exceptionalism, illustrating that the breakdown of species boundaries does not guarantee human-animal equality. This review suggests that future studies investigate the relationship between the collapse of the species binary and human exceptionalism. It recommends that, in the future, a systematic literature review could be conducted to produce a thoroughly comprehensive critical review of the subject, thereby gaining in-depth insights into the link between post-human bodies and hybrid creatures from more comprehensive perspectives and a wide range.

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