E-ISSN : 2963-4946
Vol. 2 No. November 02, 2023
Asian Journal of Social and Humanities
https://ajosh.org/

The conflict of role and sign: A Zoosemiotic approach on Long-tailed Macaque in Bali

Putu Bayu Wikranta Kusuma Jaya
Universitas Udayana, Indonesia
E-mail: jaya.2280211002@student.unud.ac.id

*Correspondence: jaya.2280211002@student.unud.ac.id

KEYWORDS
Conflict; Long-Tailed Macaques; Zoosemiotics

ABSTRACT
Zoosemiotics as a system of signs that occurs between animals, presents the initial premise that their existence is no longer purely biological, but vulnerable to the influence of human cultural life. This research examines the survival instincts of long-tailed macaques in a zoosemiotics approach, focusing on the need for food, and the reaction to threats. Data were collected through direct observation and unstructured interviews in two spatial distinctions, namely a natural location and an artificial location. Data analysis was carried out in an interpretive-qualitative manner. The results showed that Long-Tailed Macaques in the artificial location reacted very little to threat, in contrast to those in the natural location. Meanwhile, the need for food from long-tailed macaques in the natural location does not cause interspecies conflict as occurs in the artificial location. The influence of human cultural life has reduced long-tailed macaques' formerly more independent and purely biological survival instincts

Introduction

The existence of animals that are said to be purely biological has in their development adapted to follow human cultural life. This adaptation process is prone to occur in areas of animal existence that are close and intensively in contact with humans. For long-tailed monkeys (Macaca fascicularis), not all humans live close to them, but the desire for observation has been facilitated through access to natural attractions, cultural entertainment, and education (Daylight, 2012). Fundamentally, this has consequences for the spatial conditions of long-tailed monkeys that must accept standards of ease, comfort, and human reification of them. Changes in spatial conditions have an impact on changing animal behavior, and this behavior is highlighted when it presents negative interactions and judgments from humans (due to animal language limitations). In a report by Kumparan (Ferdian and Fikrie, 2021) entitled "Why Do Long-tailed Macaques in Bali Like to Steal Tourist Goods?", it is said that stealing goods for long-tailed monkeys has become a skill in itself. Similarly, by National Geographic Indonesia (Erikania & Hariningsih, 2017) long-tailed monkeys at Uluwatu Temple in Bali are said to have unusual behavior, namely the seizure of tourist goods as a "form of hostage-taking and

barter system". Further information, National Geographic Indonesia explained that the behavior of this long-tailed monkey comes through a learning process within the scope of its own species.

Both of these reports provide relevant starting points as the role of human cultural life and the significance of their signs (semiosis) have not been significantly raised as the very factors influencing the "unusual" behavior of long-tailed monkeys. That is, long-tailed monkeys must initially acquire the "action-tipped cognition" caused by human cultural life, to then present the argument that there is "new knowledge" spread within their own species. The research mentioned on the National Geographic Indonesia was also only conducted in one location, namely Uluwatu Temple, and clearly, the process or results of the study could not be found or accessed publicly, making it worthy of further research, as well as comparisons with the existence of long-tailed monkeys in different locations (Dydynski & Mäekivi, 2019).

Basically, this study focuses on proving the influence of human cultural life on the existence of long-tailed monkeys that are referred to as "purely biological". One can not realize that when they visit, say, Uluwatu Temple, and their goods are "stolen" by long-tailed monkeys—and have to be bartered for food, all of these negative interactions and judgments for long-tailed monkeys must be investigated by looking at the human presence regarding the consequences of cultural life that they present, and not merely prejudging animals. In the words of (Gluckman et al., 2016), "The nature of culture explains that the specific manifestations it presents are not determined based on genetics, although the capacity to demonstrate culture must have a genetic basis". Long-tailed monkeys engage in "theft" and "barter system" not because these actions (specific manifestations) are always determined for their species, nor can "theft" and "barter system" be done without a genetic aspect—related to body composition (Ferdian, 2021).

To get answers to the focus of this research, the research location will be divided into two spatial differences, namely natural (forest), and artificial (natural attraction). These locations are the forest areas near Green Bowl Beach, Ungasan Village, and Ubud Monkey Forest. For the record, zoos are not included in the location of research because so far in Bali there have been no long-tailed monkeys (Macaca fascicularis) living in zoos (Gilliam, 2011). The natural location of one of the study sites is also not "purely forest", as it is necessary to influence human cultural life to obtain the significance of signs of long-tailed monkeys (semiosis). Artificial locations in the form of natural tourism are described as related to natural landscapes whose characteristics have undergone urban standard arrangements for convenience, comfort, safety, ethics-aesthetics, and related reifications for human observation access to long-tailed monkeys. Zoosemiotics, the signs of long-tailed monkeys are focused on the survival instinct, which is specifically in the term "fight or flight". The term fight or flight was first expressed by Walter Cannon as early as 1927, namely in the definition to represent various actions that occur in response to a threat (Suresh et al., 2014). Similarly, in the keyword "stress", the term fight or flight is emphasized by (Plaford, 2013), "not focusing on managing or overcoming stress, but focusing on escaping stress, and protecting yourself". In the specific definition following the focus of this study, the act of fighting is defined as a struggle and conflict that occurs between fellow species of long-tailed monkeys and humans for food. The act of running away is defined as resistance and reaction to threats with fellow species of long-tailed monkeys and humans in order to protect themselves. Humans here have no significant difference over the "fight or flight" survival instinct, nor are they outside the semiosis of zoosemiotics. Fighting is defined as the act of driving away, threatening, to the extent of

physically hurting when faced with a conflict with a long-tailed monkey. Flight is defined as going away from a long-tailed monkey when faced with the same conditions (Gluckman et al., 2016).

Zoosemiotics research in Indonesia so far still emphasizes signs related to ecolinguistics, focusing on animals and animals (animal communication), as well as qualitative content analysis on animal-themed texts and media works (Hazel, 2019). A study that only focuses on animals alone, is prone to be stopped by positivism or scientific prejudice, because it does not explain the presence or position of humans when the research is carried out, which is assumed to affect the entire process and results of the research conducted. Research on animal-themed texts and media can be imaginary because it is based on fictional works, entertainment media, and related creativity that is primarily for economic purposes (reification). These studies include Radityo Widiatmojo's entitled "Semiotic Analysis of Zoos in Photobook entitled (Widiatmojo, 2018). This research focuses on expanding the meaning of zoos in society through Charles Sander Peirce's semiotic analysis of related objects. Through qualitative methods, this study found that zoos have a very contrasting dualism of functions. On the one hand, zoos provide representational experience as the objectification of animals for the sake of human knowledge. On the other hand, zoos themselves ruin the wild nature of animals because they are kept by humans. Photography is said by Widiatmojo, "able to be a means of visual argumentation that can criticize phenomena that occur in society". Widiatmojo's research is an adequate starting point for this research, as it complements, sparingly, the "dominance of humans in animals" and the influence of human cultural life on the "wild nature" of animals, which in this study can be commensurate with the "survival instinct". In addition, the research by Widiatmojo presents the focus of the research location, namely in zoos, and this research adds to the variety of locations in two spatial differences, namely natural locations and artificial locations (Leca et al., 2021).

Related research was also conducted by Khatib Lubis with the title "Zoosemiotics in the Mangupa Event at South Tapanuli Customary Marriage: Ecolinguistic Studies" (2018). This research focuses on the search for meaning through ecolinguistic studies and zoosemiotics approaches related to the traditional ceremonies of the South Tapanuli people. Through descriptive analysis methods, this study found that the people of South Tapanuli use a lot of flora and fauna as a tool to express their thoughts and feelings, namely hope for happiness, welfare, and perfection of life (Maran et al., 2011). It is found in traditional ceremonies, both marriage customs, birth customs, death customs, and so on. In addition, Lubis also explained that the people of South Tapanuli realize how important ecology is in maintaining mutual survival. The research by Lubis also serves as an adequate point of departure for this research, as it complements, sparingly, the "relationship between humans and animals", and looks for the interactions and negative judgments that both generate (Lubis, 2018).

Further note, research in Indonesia related to zoosemiotics so far has not mentioned Thomas Sebeok as the initiator of zoosemiotics, nor zoosemiotics as a theoretical framework. This is not, fundamentally, a significant problem, considering the process and results of the analysis of these studies carried out with semiotic studies that are still related, namely underlying, one of them, from Ferdinand de Saussure with the object of analysis related to animals. However, as a major distinction, zoosemiotics has always presented an interpretation that the significance of signs (semiosis) – between peers and different species, is socio-culturally constructed, for practical and "manipulative" regulatory functions. Research outside Indonesia, one of them was conducted by Jason

Mario Dydynski and Nelly Mäekivi entitled "Darwin's antithesis revisited – a zoosemiotic perspective on expressing emotions in animals and animal cartoon characters" (2019). The study focused on looking for signs in the emotional expression of animals compared to the emotional expression of animal cartoon characters, which were divided into eight types of emotions: anger, fear, happiness, sadness, surprise, anticipation, trust, and disgust (Richards et al., 2018). The results found that the emotional expression of animal cartoon characters tended to follow human forms of expression rather than the expression of real animals, although it is not entirely possible to state that humans are the only or primary reference for the expressions produced. In the process of communication, it is also mentioned that animals with similar body plans tend to be easier in carrying out communication between species, but do not exclude the possibility of miscommunication even if they have certain similarities (environment, species, or body plan). For cartoon animals, their main features and character designs are often manipulated to aid the communication process as well as animation and reification needs, such as connecting it with the human voice, expression of human feelings, and related settings that can help animation makers produce more dynamic and expressive animations (reification) (Schroeder, 2018). Dydynski and Mäekivi have cited Sebeok in their research, and the focus on "eight emotional expressions of real animals and cartoon animals" can be commensurate with the survival instinct of fight or flight as part of a form of emotive "animation" directly, or not in a behind-the-scenes setting. Lastly, research by Jean-Baptiste Leca, Noëlle Gunst, Matthew Gardiner, and I. Nengah Wandia entitled "Acquisition of object-robbing and object/food-bartering behaviors: a culturally maintained token economy in free-ranging long-tailed macaques" (2021). This research focuses on presenting a model for a "token economy" exchange system between primates and humans that is more ecologically valid, or not based on laboratory experiments. Located in Uluwatu Temple, with a primate species of long-tailed monkey, the results found that the success of the "object theft" and "barter system" that occurred between long-tailed monkeys and humans was due to two factors. The first factor is the age difference of long-tailed monkeys—which indicates the experience of "object-robbing". The second factor is the relationship between behavior and the estimated quantity and quality assessment of long-tailed monkeys related to the "barter system" with humans (Silman & Pearson, 2002). Leca et al did not cite Sebeok in their research, but the focus of the "token economy" could be commensurate with the decision-setting and actions of long-tailed monkeys. The research of Leca et al does not explain the presupposition of negative judgments of "object-robbing" and "barter system" of long-tailed monkeys as semiosis, which is mainly a socio-cultural construction of humans. In addition, the focus of "token economy" exchange system of long-tailed monkeys is too sophisticated interpretations for animal species and requires the more basic interpretations, such as the survival instinct—fight or flight.

Departing from the studies presented above, this research is here to open new propositions, develop concepts, and complement studies related to zoosemiotics that have been carried out before. In addition to being in the realm of linguistics and sign communication, this research is also based on the critical social-humanities paradigm related to the influence of human cultural life on animals which leads to subalternity and dominance. Subalterity does not always pertain to human beings, but also (mainly) to animals (Wijaya, 2020). Dominance explains that animals cannot make meaningful judgments as lower-placed species, and humans can forget that the results of their judgments of animals do not originate with the animals themselves, but rather are

reflected in prejudiced human knowledge and actions. The recreational culture of animal observation, which has recently become overgrown in applying standards of human reification, is a setback to the protection and conservation of animals in their "natural habitat"—as well as their "natural" survival instinct. Zoosemiotics can help to see the continuity between the cultural (culture) and the biological (nature) and the synthesis produced by both. In practical terms, humans can also be directed to take more responsibility as the dominant or "superior" species (by far), and deal with the consequences it has presented to various animal species—especially in the context of this study, the long-tailed monkey (O'Brien & Tabaczynski, 2007).

Research Methods

This study used an animal-anthropology approach (anthrozoology) based on zoosemiotics. Semiotic analysis normatively does not require interviews, but because this study has an interdisciplinary approach with anthropology, unstructured interviews are used as secondary data to complement the primary data from observations. Unstructured interviews are based on a clear plan that is present in the researcher's mind and is characterized by minimal control over informant responses. The idea of unstructured interviews is to make informants open up and let them express themselves in their own way and at their own pace (Bernard, 2017). Similarly, according to Zhang and Wildemuth, the focus of unstructured interviews is to understand the meaning of an experience from the interviewee's point of view, which is governed by cultural conventions (2009: 4). The limitation of the main object of analysis, namely long-tailed monkeys in providing information verbally or in standard complexity of human semiosis, make researcher choose informants who have directly come into contact with this object of analysis intensively and repetitively for a long time. These informants are people who work in research locations. The first informant was named Ibu Anis, a shop owner located in a natural location, the Green Bowl Beach forest area in Ungasan Village. The second informant was named Pak Ketut, a manager at the artificial location, Monkey Forest Ubud. The results of the researchers' observations are recorded carefully and thoroughly, in the form of text, photos, and videos, in order to obtain accurate and adequate data. After the data is collected, researchers reduce the data. Data reduction is summarizing, choosing the main things, focusing on the important things, and looking for themes and patterns. The reduced data are then presented in an interpretive-qualitative analysis. Interpretive-qualitative analysis explains the position of researchers in providing reactions and interpretations to observational data as well as from informants in their position as "co-researchers" (Elliott & Timulak, 2005).

The base of zoosemiotics used in this study acts as a frame of reference when conducting data analysis. Terms of reference can be defined as perspectives, paradigms, and ways that help researchers direct the results of the analysis to the goals they want to achieve. This also explains that the base of zoosemiotics in this study is not a tool of analysis, insofar as the definition of "analytical tool" refers to the semiotic base that has systematic and distinctive concepts, terms, illustrations, or charts. Regarding the legitimacy of the results of the analysis, qualitative research supports the epistemological foundation of reality and values built by researchers. Researchers at the same time must also be sensitive to the realities presented by others involved, as well as the consequences of changes and differences in values. All findings of "truth" in qualitative research are ultimately socially negotiated (Shank, 1995).

Results and Discussions

Results of Observation and Interviews from the Natural Location

The first informant, Ibu Anis, mentioned that the species of long-tailed monkeys at the site reached hundreds and divided into two herds. The first herd (herd A) lives in the woods northwest of Green Bowl Beach, and the second herd (herd B) lives in the woods north of the beach entrance. The first informant said that the territory was "taken seriously" by both oppositions, which often led to conflicts at times interpreted as territorial encroachments. This territorial boundary encroachment is reinterpreted as an attempt to find food, with a higher frequency of herd B to herd A's territory, because herd A's territory is closer to human life, namely the parking area of Green Bowl Beach tourists and two shops—one of which belonged to this first informant, making higher human mobility. This higher mobility is interpreted as the influence of the survival instinct of long-tailed monkeys that need food (fight), caused by the presence of shops selling food and drink, which is not the case with herd B. For resistance (flight), herd A does not act aggressively such as invading the store, or looking for waste food near the store, or when given voluntarily by the shop owner or tourists. Herd A has a moderate level of resistance, with the act of fleeing in reaction to the threat of being approached by humans even if they intend to provide food for them. Apart from humans, herd A also presents resistance when approached by other animals, namely stray dogs at the location, where these two animal species often fight over food.

The first informant said that it has become routine for shop owners around Green Bowl Beach to give food to stray dogs guarding the shop at closing times, but not always to the long-tailed monkeys that live on-site, only when there is more food. The first informant also explained that there were animal enthusiasts from various clinics around Pecatu and Nusa Dua areas who often attended once a week to provide food in the form of papaya or bananas to herd A. This happened during the observation made for this research, on Sunday, October 9, 2022, starting at 3.30 p.m. Three people, two adults, and one child, were present, who gave three bags of papaya fruit to herd A. Although this has been done routinely, herd A still shows resistance by running away when approached to be given food, and only gathering closer when all the food has been dropped and humans have moved away. There was a scramble for food afterward between fellow A herds, but this can be considered moderate. Stray dogs at the site also approached this food source, and some dogs managed to snatch food from long-tailed monkeys who chose to flee and drop their food. During observation, it can be interpreted that herd A in the time before the arrival of the animal enthusiasts, had been waiting by gathering on the boundary walls between the northwest forest area and the beach parking area, as well as trees and vacant land at the same point. One of the dogs did not stop barking as the A herd approached the food source of the animal enthusiasts but on the one hand, the dog also did not attempt to snatch the food of the A herd like some other dogs. The feeding process with herd A lasted effectively for 10-15 minutes and herd A one by one went away into the northwest forest area when the food given was observed to be no longer found. Although the first informant mentioned that the entire population of long-tailed monkeys at the site is around hundreds (100+), at the time of observation only about 40-50 were seen. The interpretation that the population is said to be in the hundreds is also the responsibility of herd B, which is not significantly present in these observations other than their appearance on the northern forest lip near the coastal entrance. The suspected B herd, only two were seen, was near the cars of tourists who were parked at the beach entrance. This is again interpreted as the need for food in the presence of humans

Figure 1. An animal enthusiast gives papaya fruit to herd A.
Source: Personal documentation.

Analysis on the Natural Location

Referring to the arrangement of Gillam's model of animal communication and Sebeok's zoosemiotics on the theoretical framework, at this location, humans become The Signaler significantly. Humans send signals as information in the environment by the act of giving food, which the signal is received by long-tailed monkeys as The Receiver in the form of a flight in reaction to the threat to the initial decision (flight precedes the fight). Once humans are further away, with food already at one point, the long-tailed monkeys only then present actions and decisions to take food. The second stage, The Signaler is a long-tailed monkey that provides signals as information in the environment in the form of signals moving actively towards food sources. The other long-tailed monkey as The Receiver receives a signal to follow the same from The Signaler long-tailed monkey which already presents decisions and actions on signals from humans as The Signaler in the previous stage. The decision and action to take food together is interpreted to increase the sense of security for the herd of long-tailed monkeys, if there is ultimately a negative interaction with their gradual instinct of life, the act of fighting with humans for food. The survival instinct on the part of humans, namely an animal observer, does not look significant in this observation, due to the act of giving food that is intentional and has become a habit. This habit is related with the study of anthro-zoosemiotics with applied zoosemiotics derivatives that explain human and animal interactions in kinship relationships, such as livestock with breeders, or pets and their owners. The term "manipulating" for practical purposes is revived, which the animal enthusiasts does for every act of feeding long-tailed monkeys.

Compared with the example of the case found in Uluwatu Temple (based on the National Geographic Indonesia news in the introduction), it can be interpreted that long-tailed monkeys in the Green Bowl Beach area, Ungasan Village are more docile. It is interpreted that the purpose of humans to be presence at this location (tourists in general, outside the animal enthusiasts) is not to meet long-tailed monkeys (or become a secondary condition), but mainly for touristy activities on the beach. Tourists are interpreted with neutral preferences. That is, the presence or absence of long-tailed monkeys is insignificant since it does not become the main purpose for presence on the site. This excludes negative interactions that can occur if tourists perceive long-tailed monkeys as a threat, i.e. fight as an act of driving away or fleeing away from long-tailed monkeys. For animal enthusiasts, they have gone beyond the usual on-site presence as tourists, as they have actively introduced habits that influence purely biological references to long-tailed monkeys' survival instincts, and appropriately form pet kinship with their owners. If the biological and cultural have merged, the interpretation in the future is that long-tailed monkeys, despite having obtained food outside the animal-watcher's side, the survival instinct for the need for food is driven by cultural phenomena, namely the habit of being given food by animal observers. The habit of being given food, in consequence, can reduce the survival instinct of long-tailed monkeys, then aggressive actions such as invasions of people's shops, or forcibly seizing food, can be done if at any time this habit stops being carried out by animals observers. Humans on the other hand can't restrain their desire to help long-tailed monkeys in the mutual survival instinct. In semiosis, seeing long-tailed monkeys starving or in need of food, humans put themselves in the shoes of long-tailed monkeys, and by helping to feed long-tailed monkeys, humans are helping themselves. This is common between humans and humans—zoosemiotics describe the same semiosis, but between humans and animal species.

Table 1 Fight or Flight survival instinct between long-tailed monkey and human species at the natural location of Green Bowl Beach area, Ungasan Village

No.	Species	Fight	Flight
1	Long-tailed monkey	The need for food does not cause conflicts	Resistance is the act of running away if humans get too close
2	Human	Not performed	Not performed

Source: Author

Results of Observation and Interview from the Artificial Location

The demographic data contained in this location is presented comprehensively from the research of Gwennan Giraud, and a team of researchers from the University of Liège, Belgium, in 2021. It said that the number of long-tailed monkeys at the site reached 1260, with eight biological age levels, divided into ten herds based on territorial distribution. The demographic data is present through information boards located in the central territory. The central territory has the largest herd of long-tailed monkeys, at 232, which for herds in other territories is in the hundreds to under a hundred. The central territory is also a rapid gathering point for tourists, as well as symptoms of conflict between species. Based on the survival instinct of fight or flight with humans, fights can be presented by long-tailed monkeys if humans perform

unsettling actions, such as touching, staring right into their eyes for a long time, and playing tricks on them by hiding food (not immediately given to them). Conflict symptoms increased, specifically, in relation to the protective actions of long-tailed monkey mothers in protecting their babies.

If with fellow species of long-tailed monkeys, it is interpreted as an act of guarding territory related to boundary violations, as well as fighting for food. The difference between each herd and another, in addition to the population of each herd, is the intensity of meetings with tourists. The intensity of the encounter results in the duration of the encounter, and this is tentative, because in some territories, such as the cemetery territory and the southern territory, despite having more long-tailed monkey populations than the northern territory, the intensity of encounters with tourists is lower, because in both territories there are less points of interest for photography activities (or just located) as in the northern territory. It is interesting to interpret related to artificial architecture that presents standards of comfort and safety for humans, as well as being a photogenic spot. The cemetery territory and the southern territory are also often passed to go to the central territory and to the northern territory because it is close to the entrance of the location and parking area of tourists. When a certain point is considered interesting, the tourists will be at that point for a longer duration. The longer duration is interpreted to result in the habit of long-tailed monkeys to be near humans. However, in overall observations, long-tailed monkeys across the territory present very low resistance to human presence. Human presence includes being near long-tailed monkeys, giving food, taking pictures together (sometimes in physical contact), and walking past them.

In observations made by researcher on Monday, October 24, 2022, starting at 12.45 p.m., several specific cases showed the action of fighting long-tailed monkeys to humans, in certain "for no reason" interpretations, which resulted in human flight. Long-tailed monkeys in this location show escape or flight action when given a fight by Ubud Monkey Forest managers, such as guides, merchant staff, or cleaner staff scattered almost throughout the territory—especially in the central territory. Tourists are not seen doing fights, which is interpreted as beyond their capacity, because it is the responsibility of the manager. The second informant, as well as one of the managers named Pak Ketut, said that the decisions and actions of fighting were only carried out when long-tailed monkeys were very disturbing to tourists. If these troubling things are done by fellow long-tailed monkey species, then it is often left to the manager. For food needs, all territories are given a number of food portions by the Ubud Monkey Forest manager between 3-5 times a day. These foods are cassava, corn, and fruits. The food was stored in locked iron bars and was only opened by the manager when it was time for long-tailed monkeys to eat. Meal time is tentative considering the situation at the location, especially the intensity of tourists. Tourists can give food purchased from on-site merchant staff or brought in from off-site. Off-site food should be suitable for long-tailed monkeys. In this location, the habit of being given food, in consequence, can be reduced to negate the survival instinct of long-tailed monkeys, then aggressive actions such as invasion outside the site, or forcibly seizing food, can be done if at any time Ubud Monkey Forest is empty of tourists. Humans on the other hand cannot restrain their desire to carry out tourism activities, especially animal observations in natural tourism, with standards of convenience, comfort, and safety—which tend to be reificative. In semiosis, seeing long-tailed monkeys in nature tourism, humans ignite themselves in a sense of joy of travel activities—as well as being a

superior species, so that efforts to be close, provide food, and take pictures with animals, become significant goals and settings.

Figure 2 Tourists pass through the herd of the central territory.
Source: Personal documentation

Analysis on the Artificial Location

Referring to the arrangement of Gillam's model of communication and the of the Sebeok's zoosemiotics on the theoretical framework, the long-tailed monkey became The Signaler significantly. The signal is sent as information in the environment which is received by humans as The Receiver. The signal was interpreted as dominance, over the meeting of long-tailed monkeys and humans in deliberately and centrally designated locations. Like guests with hosts, the meeting does not accustom humans to meet long-tailed monkeys (except for managers on site), but accustom long-tailed monkeys to meet humans. This habit makes flight or flight related to the reaction to threats from long-tailed monkeys very low. The second stage, The Signaler is humans in the habit of giving food 3-5 times to the long-tailed monkey as The Receiver. The action presented by the long-tailed monkey as The Receiver does not present a flight for the initial decision, which is to run or go away. Long-tailed monkeys actually approach the management point when preparing food, as well as interpreted as a territorial guard measure so that food is not seized by herds from other territories.

Long-tailed monkeys in Ubud Monkey Forest can be interpreted as more docile than those in the Green Bowl Beach forest area of Ungasan Village. Tame is interpreted in relation to human cultural life which has greatly influenced the biological references of long-tailed monkeys intensively, especially regarding the survival instinct to fight as a need for food, and flight as a resistance reaction to threats. It is interpreted that the artificial location of Ubud Monkey Forest has always been intended for tourists who want to meet long-tailed monkeys. The negative preferences that are present then are not the responsibility of the long-tailed monkeys, nor the

managers, because it has become a conscious human choice to visit Ubud Monkey Forest. There is also a condition of abundance of food, interpreted as Ubud Monkey Forest asking for a levy at a high price. Compared with the example of the case found in Uluwatu Temple (based on the National Geographic Indonesia news in the introduction), although with the same high retribution as Ubud Monkey Forest, it is not necessarily distributed to long-tailed monkeys, other than later on certain sacred occasions. This is because Uluwatu Temple does not present long-tailed monkeys as the main focus, but secondary conditions, like the forest area at Green Bowl Beach in the Ungasan Village area.

Table 2 Fight or Flight survival instincts between long-tailed monkey and human species at the artificial location of Ubud Monkey Forest

No.	Species	Fight	Flight
1	Long-tailed monkey	The need for food gives rise to conflicts between species	Do not resist the act of running away if humans get too close
2	Human	Performed by managers under certain conditions	Performed by tourists under certain conditions

Source: Author

Conclusion

Based on the results and discussion above, this study found evidence of the influence of human cultural life on the life of long-tailed monkeys which were previously only referred to as purely biological. The influence is explained by differences in fight or flight survival instincts – namely the need for food and reactions to threats, based on two spatial differences: natural location and artificial location. Natural location still describes its spatial condition as a "natural setting", although it does not negate the prototype itself to an artificial location. Artificial locations on the one hand, have been more recently eroded in the play of the term "natural attractions". Above all, long-tailed monkeys are incapable of presenting semiosis related to changes in terms or spatial conditions of their habitat, other than the following influences, as far as the dominance of human cultural life.

The domination of nature that is upheld for the benefit of humans is very easy to become a practice of domination over other species, namely animals. These interests can be considered "tame" and positivist, such as natural attractions, cultural entertainment, and education—related to animal observation, although it has always presented a reciprocal negative influence between humans and animal species, one of which is long-tailed monkeys. In the encounter between humans and long-tailed monkeys, related to biological and cultural, humans need to be aware of their existence as a cause for the decisions and actions of long-tailed monkeys, especially when presenting negative interactions that are considered unsettling or detrimental to them. Semiosis or signs produced by animals, is not purely internal (nature), or something in itself, but has always been influenced by external things, one of which is human cultural life (culture). Animals are no longer purely biological since the presence of humans (beyond the spatial distinction, i.e. in outline, Homo sapiens), which fundamentally, began when animals had come into direct contact—of semiosis with humans. This contact blurs the boundaries

between animals in nature and culture, as well as the semiotic sign significance of humans over animals, and vice versa.

Wittgenstein said "If lions were able to speak, then we humans would not be able to understand them". If humans bring animals from their natural habitat to be studied in the laboratory, the "scientific facts", presented by humans can overlook the relevance of spatial differences of animals in producing signs that then affect the very process and results of human research. Likewise, the results of this research is an attempt to represent the inability of animal species to produce semiosis textually and comprehensively. Above all, this inability is not seen as a reason for unequal domination—man's cultural life over nature, which is also a strengthening of the position of subalternity of animal species. Humans, on the other hand, as Homo Significant, must be able to live in interactions and judgments of themselves as dominant and "superior"—that is, understand the prejudices in communication and action between themselves and animals. In practical terms, humans also need to follow the best estimates following their needs in animal observation, namely by presenting a balanced and proportional reification of animal spatial conditions – which will affect animal behavior, as well as human behavior. Increasing education and responsible attitudes is no less important for all parties (people who work at the location, managers, tourists) so that they not only conduct passive animal observations, but also study and understand comprehensively these observations (animal communication, zoosemiotics, the significance of semiosis-signs, survival instinct fight or flight actions—in animals and humans, and so on).

Finally, this research is expected to contribute some knowledge about zoosemiotics, especially related to the conflict of roles and signs between long-tailed monkeys and humans with a focus on the survival instinct of fight or flight. The specificity of this research makes it in need of many development positions (research gaps). Further research are expected to be able to complement things that have not been contributed by this research.

References

Bernard, H. R. (2017). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman & Littlefield.

Daylight, R. (2012). The difference between semiotics and semiology. *Gramma: Journal of Theory and Criticism*, *20*, 37–50.

Dydynski, J. M., & Mäekivi, N. (2019). Darwin's antithesis revisited–a zoosemiotic perspective on expressing emotions in animals and animal cartoon characters. *Sign Systems Studies*, *47*(1/2), 205–233.

Elliott, R., & Timulak, L. (2005). Descriptive and interpretive approaches to qualitative research. *A handbook of research methods for clinical and health psychology*, *1*(7), 147–159.

Erikania, S., & Hariningsih, Y. (2017). Uji Aktivitas Antibakteri Ekstrak Etanol Daun Kamboja (Plumeria Sp) Terhadap Bakteri Escherichia coli Secara In Vitro. *Edu Masda Journal*, *1*(1), 74–81.

Ferdian, E. (2021). *Peran BHABINKAMTIBMAS dalam memediasi permasalahan rumah tangga (studi kasus di Desa Persil Raya Kecamatan Seruyan Hilir Kabupaten Seruyan)*. IAIN Palangka Raya.

Gilliam, E. (2011). An introduction to animal communication. *Nature Education Knowledge*.

Gluckman, P., Beedle, A., Buklijas, T., Low, F., & Hanson, M. (2016). *Principles of*

evolutionary medicine. Oxford University Press.
Hazel, R. (2019). *Snakes, People, and Spirits, Volume One: Traditional eastern Africa in its Broader Context* (Vol 1). Cambridge Scholars Publishing.
Leca, J.-B., Gunst, N., Gardiner, M., & Wandia, I. N. (2021). Acquisition of object-robbing and object/food-bartering behaviours: a culturally maintained token economy in free-ranging long-tailed macaques. *Philosophical Transactions of the Royal Society B*, *376*(1819), 20190677.
Lubis, K. (2018). Semiotik Fauna dalam Acara Mangupa Pada Perkawinan Adat Tapanuli Selatan: Kajian Ekolinguistik. *Linguistik: Jurnal Bahasa Dan Sastra*, *3*(1), 33–45.
Maran, T., Martinelli, D., & Turovski, A. (2011). *Readings in zoosemiotics* (Vol 8). Walter de Gruyter.
O'Brien, W. H., & Tabaczynski, T. (2007). Unstructured interviewing. *Handbook of Clinical Interviewing with Children*, *1998*, 16–29. https://doi.org/10.4135/9781412982740.n2
Plaford, G. R. (2013). *Fight or Flight: The Ultimate Book for Understanding and Managing Stress*. Xlibris Corporation.
Richards, R. J., Raoult, V., Powter, D. M., & Gaston, T. F. (2018). Permanent magnets reduce bycatch of benthic sharks in an ocean trap fishery. *Fisheries Research*, *208*, 16–21.
Schroeder, S. (2018). God, lions, and Englishwomen. *Human Understanding as Problem*, *11*, 171.
Shank, G. (1995). Semiotics and qualitative research in education: The third crossroad. *The Qualitative Report*, *2*(3), 9.
Silman, A. J., & Pearson, J. E. (2002). Epidemiology and genetics of rheumatoid arthritis. *Arthritis research & therapy*, *4*, 1–8.
Suresh, A., Latha, S. S., Nair, P., & Radhika, N. (2014). Prediction of fight or flight response using artificial neural networks. *American Journal of Applied Sciences*, *11*(6), 912–920. https://doi.org/10.3844/ajassp.2014.912.920
Widiatmojo, R. (2018). Analisis Semiotik Kebun Binatang Dalam Photobook Berjudul Wildtopia. *Jurnal Sosial Politik*, *4*(2), 108. https://doi.org/10.22219/sospol.v4i2.6791
Wijaya, H. (2020). *Analisis data kualitatif teori konsep dalam penelitian pendidikan*. Sekolah Tinggi Theologia Jaffray.