10.18686/wef.v2i1.3613

Animals' Feet Related Terms Translation Exploration from the Perspective of Terminology

Guanqun Lu, Wu Chen

College of Foreign Language, Xi'an Shiyou University, Xi'an 710065, China.

Abstract: Zoological terminology constitutes the linguistic symbols expressing the core concepts in the field of zoology. Translating these terms involves the expression of core concepts in zoology, which is crucial not only for zoological research and academic communication but also influences scholars' academic practices. This paper collects English and Chinese terms related to " 足 " and their existing translations, categorizing and summarizing the corpus of terms related to " 足 ." Moreover, it provides a practical basis for naming newly emerged terms. The analysis in this paper offers guiding principles and readily applicable translation results for translators in the field of zoology when translating terms related to " 足 ." Additionally, it presents translation strategies for newly emerged terms related to " 足 ," offering effective solutions to translation challenges in zoological terminology concerning " 足 ."

Keywords: Terms Related to " 足 " (foot); Text Characteristics; Translation Strategies

1. Introduction

Universities across the globe conduct research in zoology, a field vital for understanding animal characteristics and classification. However, inconsistencies and lack of uniformity in terminology translation pose challenges for terms'recognition, memorization and cross-culture communication. Thus, investigating zoological terminology becomes imperative.

Li Xingjie[1] emphasized that current students not only struggle with memorizing these intricate noun terms but also often find it hard to differentiate similar nouns, leading to confusion with unfamiliar vocabulary. Liu Wei's stated [2] that the confusion in species nomenclature being a common issue in animal taxonomy. This confusion extends beyond species names and notably complicates the translation of terms related to animal body parts, especially those concerning " 足 ."

To elevate the accuracy and standardization of zoological terminology, this study endeavors to compile and categorize terminology related to "limbs" in animals, proposing standardized translation principles to address this issue within the field of zoology.

2. The Translation Perspective of " 足 " Related Terms

The translation of "limbs" terms is a realm of academic English translation, distinct due to zoology's unique species naming. To offer precise terminology support across domains, comprehensive research from diverse angles is essential.

British terminologist Juan C. Sager [3] proposes analyzing terminology from three aspects: the denoted object, its name, and their relationship. This yields three theoretical dimensions: cognitive, linguistic, and communicative. This study analyzes collected terms within these dimensions, deriving naming traits and corresponding Chinese translations.

In China, Professor Hu Gengshen introduced "three-dimensional transformation" in "ecological translation studies," urging consideration of language, culture, and communication. While traditional methods suit terminology naming, the ecological translation studies theory offers a comprehensive translation perspective.[4]. Thus, this paper amalgamates both perspectives for "limbs" term analysis, serving as a reference for terminology handling.

3. Analysis of the Characteristics and Translation Strategies of Terms Related to " 足 "

The analysis will proceed from various aspects of the usage function, intrinsic characteristics, growth location, different species, and neologisms related to " 足 ."

Through the collection and classification of terminology, it is evident that in zoological terminology, there are various words denoting "limbs" in English, such as "podium, pod, foot, leg, ped," highlighting the phenomenon of numerous synonyms in the English language. This implies that in English, two or more words can have identical or very similar meanings. The common occurrence of synonyms in English can lead to a word having different meanings in different contexts, potentially making translation complex, especially without context. On the oth-

er hand, in the translation into Chinese, they are all translated as "足", reflecting the tendency in Chinese to express meanings in a concise and direct manner. It is further extended to denote the foot, hooves, claws of animals, roots and stems of plants, or the base of supporting objects, among others. For translators, determining the appropriate expression when encountering terminology related to "limbs" is a key challenge in this study, constituting the essence of the translation issue.

The following is an analysis of common English words representing "足":

Podium: from Greek podion "foot of a vase," diminutive of pous (genitive podos) "foot" (see foot (n.)). Meaning "raised platform at the front of a hall or stage" is from 1947.

Pod: tripod c.1600, "three-legged vessel," c.1600, from Latin tripus (genitive tripodis), from Greek tripous (genitive tripodos) "a three-legged stool or table," noun use of adjective meaning "three-footed," from tri- "three" (see tri-) + pous (genitive podos) "foot" (see foot (n.)). Related: Tripodal. Ped: quadruped 1640s, from French quadrupède (16c.), from Latin quadrupes (genitive quadrupedis) "four-footed, on all fours," also, as a noun, "a four-footed animal," from quadri- "four" (see quadri-) + pes "foot" (see foot (n.)). The adjective is attested from 1741. Related: Quadrupedal (1610s). [5]. The subsequent analysis will delve into the classification, naming, and translation of various terms related to "足."

3.1 Translation Strategy Based on Function

Taking "pollen-carrying leg" as an example, each segment of the pollen-carrying leg is characterized by long hairs, a broad base at the tibia with long hairs at the edges, forming a pollen basket. The tarsus is significantly large, consisting of five sections. The first section is enlarged and has several rows of stiff hairs on the inner side, which can collect and adhere pollen to the body hairs, known as the "pollen brush." In scientific terminology, this is referred to as "corbiculate leg," where "corbiculate" signifies having a pollen basket. The "walking legs" in decapod crustaceans, located behind the mandibular legs, consist of five pairs. The first three pairs are chelated, capable of grasping food, while the last two to four pairs are claw-like, serving swimming or crawling functions. Scientifically, they are termed as "ambulatory legs" or "walking legs." The "grasping legs" represent one type of insect legs used for capturing prey. The basal segments are often elongated, and the leg segments are well-developed. The legs have relative teeth or spines on the leg and tibia, forming a capturing mechanism. Scientifically, they are referred to as "raptorial legs." The "swimming legs" are suitable for swimming and are denoted by "swimming legs" or "natatorial legs." In summary, it can be observed that the English translation formula for "足" representing functionalities is "corresponding functional adjective + leg." Generally, alternative expressions for "legs" are not used to ensure the standardization and univocality of the terminology.

3.2 Translation Strategy Based on Shape

Filopodium: Thin, elongated protrusions extending outward from the cell surface, supported by microfilaments, scientifically referred to as "filopodium/filopodia." Pseudopodium: Temporary, flat or elongated protrusions temporarily extended by protozoa or white blood cells, typically used for movement and feeding, known as "pseudopodium." Axopodium: Small protrusions radiating from the periphery of certain protozoans like heliozoans, supported by a complex arrangement of microtubules, termed as "axopodium." In addition, there are other types such as "conopodium" and "reticulopodium." In summary, the English translation formula for "legs" named based on shape is "prefix indicating the shape + suffix 'podium'."

3.3 Translation Strategy Based on Growth Location

Middle Leg: Refers to the pair of legs growing on the mid-ventral side of the mesothorax, termed as "middle leg," "midleg." Caudal Leg: Refers to a pair of abdominal legs on the posterior body segments of larvae, known as "caudal leg," "caudal proleg." Fore Leg: Pertains to the legs on the prothorax, known as "fore leg."

From their definitions, we can intuitively perceive that this category of "legs" is named based on the growth location of the legs on the animal's body. Translating such "legs" requires considering the specific location of the legs. Based on existing translations, a common English translation formula for these types of "legs" is "locational descriptor + leg."

3.4 Translation Strategy Based on Species

In the naming of "feet" for birds, the term "foot" is commonly used, as shown in Table 1.

Table 1 Corresponding English and Chinese Terms for "Feet" Related Terms in Birds

Number	Chinese name	Corresponding English name
1	索趾足	desmodactylous foot
2	二趾足	bidactylous foot
3	半对趾足	semi-zygodactylous foot
4	半蹼足	semipalmated foot, half webbed foot
5	瓣蹼足	lobed foot

In zoology, there is a distinction in using "foot" or "leg" to describe the leg structure of animals. Generally, "foot" is more often used to describe the distal part of an animal's leg, such as toes, claws, etc., while "leg" is used to describe the overall structure of the leg, including the thigh, lower leg, and foot. However, the specific usage of each term depends on the context and the type of animal being referred to. For instance, in mammals, "leg" is commonly used to describe the entire leg structure, whereas in birds, "foot" is typically used to describe the distal part of their legs, such as their claws. Additionally, variations in terminology may arise due to different languages and cultural backgrounds.

4. Conclusion

A thorough study of translating "足" (foot) terminology in zoology reveals distinct patterns. Translators must consider context and term polysemy for precise meaning. This emphasizes language-specific vocabulary variations, vital in accurate translation and comprehension. This research provides a foundation for English-Chinese translation of "足" terms.

Furthermore, analyzing established patterns in terminology, there's a notable regularity in naming "足"-related terms. New terms often link to fundamental terms expressing core ideas, indicating a degree of system openness [6]. For new terms related to "足," functional ones can follow the pattern of "corresponding functional adjective + leg," translated as "corresponding functional adjective + 足." Shape-based terms can adopt the pattern of "relevant shape prefix + podium/podia," translated as "relevant shape prefix + 足." Terms based on growth location can follow the pattern of "abbreviated body part + leg," translated as "abbreviated body part + 足." Avian "足" can use the pattern of "corresponding adjective + foot," translated as "corresponding adjective + 足."

References

[1] Li, X. J. (1997). On Learning Difficulties Caused by Zoological Nomenclature. Jidong Academic Journal, 111(6), 24.

[2] Liu, W. (2021). Principles and Suggestions for Standardized Translations of Zoological Species Names. Chinese Science & Technology Translators Journal, 34(01), 18-20+41.

[3] Sager, J.C. (1990). A Practical Course in Terminology Processing. Amsterdam/Philadelphia: John Benjamins Publishing Company.

[4] Kuang, X.N. (2020). Research on English Translation of "Red Chamber Dream" from the Perspective of Terminology. Journal of Chengdu University of Technology (Social Sciences), 28(2).

[5] English Etymology Dictionary: English Etymology Roots and Affixes Comprehensive (etymon.cn). (http://etymon.cn/index.html)

[6] Zheng, Z., Wang, H. D., & Hao, L. H. (2021). Research on Military Terminology Dictionary of the US Military from the Perspective of Terminology. Chinese Science and Technology Terms, 23(03), 33-41.

About author: Guanqun Lu (1998), female, Han nationality, Quzhou City, Zhejiang Province, Post-graduate student at Xi'an Shiyou University, cultural translation