

10.5281/zenodo.60581

Volume 1 | Issue 2 | 2016

# THE SIMILARITIES AND DIFFERENCES IN THE CONNOTATION OF ANIMAL WORDS IN ENGLISH AND VIETNAMESE PROVERBS

# Vo Tu Phuong<sup>1</sup>, Vo Van Dung<sup>2</sup>

1,2Ph.D, University of Khanh Hoa, Nha Trang city, Vietnam

#### Abstract:

Animals have been human's companions from ancient times until now. Humans have observed them, understood their characteristics and even domesticated some species to serve them. People have considered animals as friend, servant or as a source of comfort and encouragement. The relationship with animals and the observation of them provide us with images and ideas as we speak and write. However, in different cultures, the same animal can symbolically express the same concept, or a totally different one. In this research, we will study and analyse a number of animal words in English-Vietnamese proverbs and compare the similarities and differences in their usage, thereby to form an interpretation and translation into English and Vietnamese proverbs accordingly.

Keywords: animal word, English proverbs, Vietnamese proverbs, translation, culture

#### 1. Introduction

Since prehistoric time, people and animals have had extremely close-knit relationship. Animals are friends of human beings. They are the companions of human in many activities and the names of the animals have expanded our vocabulary. Animals with special characters constitute meaningful proverbs thereby making our language more active, colourful and plentiful.

The animal is not only an important part of nature but also an inseparable part of human existence. We can see proverbs and expressions relating to animal characteristics and behaviour everywhere in our lives. Today these proverbs do not simply express ideas about the species but, when we examine the language more closely, these proverbs communicate human emotions, human thoughts and attitude. Throughout the East and the West the very same animal can express different emotions and thoughts. Across different cultures, geographical areas, traditions and customs the same animal can express different meanings. Cultural differences often lead to different emotions and therefore different understandings of the same animal. Some animals are created by human imagination; some animals were worshipped by the people of the East, but people in the West do not understand or do not know them. Some animals were avoided in the West but are completely removed in the East. The connotations of some animals in the West and the East are similar, but some may be completely different.

The purpose of this article is to understand the symbolic meaning of some animals which are expressed through proverbs in both English and Vietnamese cultures. By studying and analysing words derived from animals and their behaviour characteristics in the British-Vietnamese proverbs and comparing the similarities and differences in their use, we can form a method to interpret and translate English proverbs into Vietnamese accordingly.

## 2. Proverb

Proverb, derived from the Latin word, *proverbium*, is a simple, concise, well-known expression which is repeated to express a truth based on observation and experience. Proverbs often metaphorical. (Wikipedia).

Proverb scholar Archer Taylor's defines proverbs in his "*Proverb*" as follows:

"The definition of a proverb is too difficult to repay the undertaking... An incommunicable quality tells us this sentence is proverbial and that one is not. Hence no definition will enable us to identify positively a sentence as proverbial... Let us be content with recognition that a proverb is a saying current among the folk."

John Russell [1850] gave a rather common definition is "A proverb is the wit of one, and the wisdom of many." Mieder [1993] has generalized definitions and build proverbs as:

"A proverb is a short, generally known sentence of the folk which contains wisdom, truth, morals, and traditional views in a metaphorical, fixed, and memorisable form and which is handed down from generation to generation."

In short, proverbs are concise expressions of experience and wisdom of the ancient people passed down from generation to generation.

# 2.1. The similarities in the cultural concept of the animal word in English-Vietnamese proverbs

English and Vietnamese languages fall into two different types. They differ in grammar, phonetics, and structure. Yet, the concept of some animals in these two languages is similar.

The animals are different in shape and characteristics, and often used to describe a number of qualities or characteristics of human beings. Different nations and ethnics have the same knowledge of some animals and there are the same images of animals in the cultural concept of the people in these nations. From the set of natural characteristics of animal that will generate the same cultural concept of a people. In English and Vietnamese there are such animals including frogs, snake, tiger, lion.

## Frog

- "Éch ngồi đáy giếng." (The frog sitting in the bottom of the well (knows nothing outside)) (Vietnamese proverb)

- "The frog in the well knows nothing of the sea." (English proverb)

#### Snake

To British and Vietnamese people, the snake symbolizes evil and danger. In English and Vietnamese there are the proverbs about this animal:

- "Look before you leap, for snake among the bright flowers creap." (English proverb)

- "*Trêu ong; chọc rắn*." (Tease the bee, beat the snake.) (a dangerous job) (Vietnamese proverb)

# Tiger / lion

Both tigers and lions are regarded as dangerous animals, and their accommodations are dangerous places for humans. However, these animals also signify courage and strength. This is expressed in the English proverb as:

- "Better to live one day as a tiger than a thousand years as a sheep." (English proverb)

- "He who rides a tiger is afraid to dismount." (English proverb)

and in Vietnamese culture, cop/hổ/hùm are words that have the same meaning as tiger in English.

- *"Thả hổ về rừng."* (Release the tiger in the forest.) (Vietnamese proverb)
- "Tránh hùm mắc hổ." (Avoid tiger then meet tiger.) (Vietnamese proverb)
- "Nghé mới sinh đâu kinh gì hổ." (A calf is not afraid of tiger.) (Vietnamese proverb)

- "Thấy rừng sợ hùm; thấy cùm sợ tội." (Seeing the forest scared of tiger; seeing the handcuff scared of being guilty.) (Vietnamese proverb)

# 2.2. Differences in cultural concepts from the animal word in the English-Vietnamese proverbs

In English-Vietnamese proverbs there are some animals with different cultural concepts, for example dogs, horses, etc.

# Dog

Basic meaning of the dog is identified in both English and Vietnamese concept as a type of animal with four legs and they help people to guard the house. But it has very different implications in the language of the two nations.

In Vietnamese, the phrases or proverbs concerning dogs often have negative connotations and inferior mean. This is expressed in proverbs as:

- "*Chó dại có mùa, người dại quanh năm.*" (Dog is mad for a season; man is mad all year round.) (meaning: *about a stupid, foolish person*)

- "*Chó treo mèo đậy*." (To Dog, food should be hung, to cat food should be covered.) (meaning: *about being careful*)

- "Chó cắn áo rách." ("Dog bites, shirt torn.") (meaning: hardships never come alone)

- "Chó già giữ xương." (Old dogs keep bones.) (meaning: about greedy people)

- "Chó ngáp phải ruồi." (Dogs catch flies when yawning.) (meaning: about person who is lucky in a short period of time)

If in the Vietnamese culture a dog is often abusive to others; in the negative sense, this represents stingy character, unscrupulous, and hatred. However, in the minds of English people dogs, regarded as man's best friend, are trustworthy and empathetic. So, the English have proverbs about dogs such as:

- "A barking dog never bites."

- "Dog does not eat dog. (a dog-eat-dog world)"

- "Every dog has his day."

- "A live dog is better than a dead lion."

- "Love me, love my dog." (English proverb)

If we compare the two languages: English and Vietnamese, a *"positive"* meaning is associated with the dog in English, much more so than in Vietnamese.

# Horse

For long time, the horse, an animal with tremendous towing capacity used to haul and pull cargo has been seen as a close friend of human. The horse is intimately and directly

attached to the lives of rural people. The image of horse appears in the proverb with the moral, philosophy of Vietnam such as:

- "Một con ngựa đau, cả tàu bỏ cỏ." (A herd of horses will not eat if one of them is ill). (meaning: advise people to love each other and live in unity and solidarity with each other.)

- "Ngựa chạy có bầy, chim bay có bạn." (Horses run with their herd, birds fly with their flock. (meaning: Denote unity, the love for ones fellow.)

While in Vietnamese, the horse symbolizes solidarity, love for one another, in English horse presents a stubborn animal, or animal bring risks as in these proverbs:

- "Do not change horses in mid-stream."

- "Do not put the cart before the horse."

- "Three things are not to be trusted: a cow's horn, a dog's tooth, and a horse's Hoof."

- "You can take a horse to water but you can not make it drink."

This is a proverb meaning you can create an opportunity for someone but you cannot force them to seize that opportunity.

## Spider

For Vietnamese people, spider is just an ugly insect but it's non-toxic and non-lethal as many of their relatives in other places in the world:

- "*Nhện chăng thì nắng; nhện vắng thì mưa.*" (It is sunny when the spider works, it is rainy when the spider rests.) (Vietnamese proverbs)

- "Nhện đen đắt hàng; nhện vàng đưa tin." (Seeing a black Spider then selling goods better; seeing yellow spider then getting good news.) (Vietnamese proverbs)

So, when reading or hearing this English proverb Vietnamese people might be confused:

- "If you want to live and thrive, let the spider run alive." (English proverbs)

There are animal words appearing only in English proverbs but not in Vietnamese ones. For example in Vietnamese *con bò* is usually used for bull/cow/calf/ox. It seems that Vietnamese does not distinguish Bull from cow, cal or ox. However, in English this distinction is clear as in the following proverbs.

- "Better a good cow than a cow of a good kind."

- "Three things are not to be trusted: a cow's horn, a dog's tooth, and a horse's hoof."

- "A bellowing cow soon forgets her calf."

- "Better a dinner of herbs than a stalled ox where hatred is." (Meaning: simple food that comes with goodwill and affection is better than good food in an atmosphere of malice.) (English proverbs)

# Leopard

In the English proverb, there is the animal leopard. Leopards do not live in England where there is cold weather. Leopard exists mostly in African jungles with tropical climate:

- "The leopard does not change his spots" (implying that things can not change its nature).

In Vietnam, there are no leopards and some Vietnamese do not know that the leopard has spots on the skin.

# Caribou

Caribou is a kind of deer. It is in the proverb:

- "The caribou feeds the wolf, but it is the wolf who keeps the caribou strong." (The deer living in colder countries are major food sources for the wolf. This sentence implies a truth or piece of wisdom about the interplay between predators and prey.)

# Sheep (sheep / lamb)

-"Better to live one day as a tiger than a thousand years as a sheep."

- "A bleating sheep loses a bite."

- "One might as well be hanged for a sheep as a lamb."

- "March comes in like a lion, and goes out like a lamb. March came like a lion and went out like a lamb."

# 2.3. Animals words which appear in Vietnamese proverbs but not in English proverbs

In Vietnamese there are some animals, the concept of which does not exist in English culture. Such as *buffalo*, *snails*, *storks*, *owls*, *dragons*.

# Buffalo

The buffalo is a familiar animal to Vietnamese people and represents hard working. The image of the buffalo is expressed through the proverb:

- "Mua trâu xem vó, mua chó xem chân." ( If your buy a buffalo, look at the hooves.)

- "Trâu chậm uống nước đục." (Slow buffalo drinks dirty water),

- "Mất trâu mới lo làm chuồng." (Not until a person loses his buffalo does he make the stable.)

# Snails

Snail, as a Vietnamese cultural concept, indicates a heavy, sluggish creature through the proverb:

- "Ôc chẳng mang mình ốc đòi mang cọc cho rêu." (Snail can not bring its body let alone bringing others.)

- "Ôc làm chẳng nên bắt sên phải chịu." (Snails should not make others suffer the things it has done.)

# Crane

Crane images often appear in the countryside of Vietnam as in the following proverb:

- "Nuôi cò cò mổ mắt; nuôi cắt cắt đánh đầu.", (Feed the crane, the crane can pick your eye, feed the bird "cắt", the bird beat your head.)

- "Tre ngã cò đỗ." (Bamboo falls down, crane falls off.)

- "Xúc tép nuôi cò." (Work hard to feed the crane.)

- "Ngao cò tranh nhau ngư ông đắc lợi."(When clam and crane quarrel, the fisherman gets the benefits.)

- "Quạ ăn dưa bắt cò dãi nắng." (Crow is eating melon, while crane is working hard.)

# Owl

Owl is an animal that mainly acts at night. It is known to cry almost as though it were lamenting which sometimes causes people to be worried. In Vietnamese culture, the owl is often associated with bad omen and/or the coming of bad luck so it is often hated and repelled by people. Vietnamese even kill owls when they are caught.

Owl in the Vietnamese usually mean is ugly, smelly, dirty as:

- "Cú đói ăn con." (Hungry owl eats its baby.)

- "Cú khó vọ mừng." (Owl has difficulties, bird "vọ" is happy.)

- "Cú nào dám đọ với tiên."(Owl is much more ugly than fairy.)

- *"Vui một đêm thành tiên; phiền một đêm thành cú."* (To be happy after a night makes someone look like a fairy, to be sad after a night makes someone look like an Owl.)

# Dragon

Dragon is a legendary animal both in British culture and Vietnamese culture. But the Vietnamese dragon brings good luck and nobleness. This differs from English; the image of the dragon represents a cruel, fierce animal which brings bad things. In Vietnamese culture, the dragon represents luck, nobility, power and prosperity. The Dragon is present in all activities of the emperor during the country's monarchies. In Vietnam, King is called is "long" (dragon), so things which the King used always have the word "dragon" such as *long bào* (the king's coat), *long sàng* (king's bed), *long nhan* (king's face), *long thể* (king's body), *long liễn* (king's carriage)...

Although the dragon does not belong to the lives of common people, it also appears in "memorable" ancient proverbs such as:

- "Rồng đen lấy nước thì nắng; rồng trắng lấy nước thì mưa." (When black dragons take water, then it is sunny; when white dragons get water it is rainy.)

- "Rồng đến nhà tôm.", (Dragon comes to visit shrimp.)

- "Trai hơn vua khi đua thuyền rồng; gái hơn chồng khi bồng con thơ." (A man is better than a king when he participates in a dragon boat race, a woman is better than a man when she cradles babies.)

- "Vợ có chồng như rồng có mây; chồng có vợ như cây có rừng." (A man having a wife is like a dragon in cloud, a wife having husband is like a tree in forest).

In British culture, dragon is considered a powerful and aggressive monster, a symbol of evil. It is said to be the rebirth of the demon. While English and Vietnamese have a different cultural concept of the dragons, interestingly when surveying English proverbs one cannot find a trace of the animal word "dragon". The animal words that regularly appear in Vietnamese proverbs like co (crane), rong (dragon) etc. do not give any concepts in meaning, or the same concept to the British people as to Vietnamese people.

# 3. Culture and animal words

Language and culture are inseparable from each other. They depend on each other to survive and influence each other to exist. Language reflects the history, culture, entertainment, beliefs and prejudices of a nation. Because the close relationship between language and culture, we can draw the following conclusions for combination language and culture in teaching: culture exists in language, and language embodies culture. The social and cultural phenomena are reflected in the language. Nearly every aspect of people's lives is affected by their culture. We can say that culture is the basic foundation of human life. Each type of culture has its own style and its own implied language, and cultural expression of that country. Language is also a *special* form of culture. It has the important function of keeping and transmitting cultural messages. As a symbol, the language must accumulate cultural characteristics along with significant changes. Inevitably these symbols become distinctive characteristics of each country.

In the system of language, the words and phrases of the animals are close and sensitive part of every culture. From ancient times the existence and development of human beings is close to the animals. Some animals were personified and regarded as gods and were worshiped by humans. Thanks to distinguishing images and the outstanding features of the animals, people have used the animal words to describe people and the phenomena, and assign them the most generous senses in all aspects of their lives. Animal words occupy a large part of both English and Vietnamese language. Through a study of these animal words in the respective languages, we can understand many of the different cultural values as well as the social and psychological styles of British vs. Vietnamese, which pertain to the cultural role of animals

# 4. The translation of animal words from English into Vietnamese

Because there are differences in cultures of different people, so some animals might have cultural concepts in this language but not in other languages. So in English there are proverbs with animal words that do not exist in Vietnamese and vice versa. For example leopard in British proverb: *"The leopard does not change his spots."* (implying that things can not change its nature). In Vietnam, there is no leopard and some Vietnamese people do not know that the leopard has spots on its skin.

Another case is English animal word *caribou* in the proverb "*The caribou feeds the wolf, but it is the wolf who keeps the caribou strong.*" As we all know that *caribou* lives in cold countries and it is a food source for wolves. This proverb implies the interplay between predator and prey. How can we translate the proverb with such animal words into Vietnamese?

# 4.1. How to translate animals words from English into Vietnamese

The purpose of translation is to express the ideas of others into the target language with the maximum accuracy, rather than the words of the translator to replace the idea of other people. When translating from the source language to the target language, people require equivalence. Equivalence in translation has been mentioned by many researchers such as Eugene A. Nida who suggested four basic elements in the translation. They are (1) fidelity to the original text (2) clear (3) smooth and natural (4) equivalent translation, it is also confirmed that the last factor is the most important, constituting the equivalent in translation.

Equivalence in translation means the translation must be equivalent in meaning as the original language. Because there are some similarities and differences in the names of different animals in English proverbs and Vietnam ones, so we should look for the cultural equivalence in English and Vietnamese than just translating literal meaning of animal words. This means that we have to translate into the target language the symbolic images of the source language rather than just the specific animals.

Literal translation and liberal translation are the two main methods of translation for translating animal words from English to Vietnamese and vice versa.

## a. Literal Translation

Because people in different cultures may have the same knowledge of the same animal, so there are some animal words that do not have the same conceptual meanings, but also have the same cultural connotations. Literal translation can be translated like:

- "Big fish eat little fish." (cá lớn nuốt cá bé.)

- "A mouse may help a lion." (một con chuột có thể giúp một con sư tử.)

Or half a proverb could be translated, not the whole proverb sentence:

- "The frog in the well knows nothing of the sea" (êch ngồi đáy giếng.)

These proverbs are similar in meaning. In this case, the sentences should be translated literally. Sometimes we encounter a number of sentences translated from English into Vietnamese in similar structure. Translating literally could not keep the colour of the source language culture in a certain degree, but it also "put" the source language into the target language and readers and listeners will gradually accept it. For example:

- "England is the paradise of women, the hell of horses, and the purgatory of servants." (Nước Anh là thiên đường của những phụ nữ, là địa ngục của những con ngựa và là nơi ăn năng hôi lỗi của những người hầu.)

- "March comes in like a lion, and goes out like a lamb." (Tháng ba đến như một con sư tử và đi ra như một con cừu.)

The concepts of these proverbs are the same. However the translation still keeps the animal images like: *horses, sheep, lions* which make the translation naturally understandable. This helps to retain the vivid description of the source language. From these examples we can see that the literal translation can introduce the vivid expression of words clearly indicating the animal from the source language to the target language. In this way the target language learners have the opportunity to learn the culture of the source language.

# **b.** Liberal translation

Due to cultural differences, English and Vietnamese have different animal words, liberal translation is inevitable. Some of the animals in English and in Vietnamese have the same culture concept.

For example, in English proverb which says: "A bird in the hand is worth two in the bush", then this is equivalent to the Vietnamese as "thả mồi bắt bóng" (drop the bait to catch the reflection). In this case change the means of rhetorical devices are needed in translation. Or the English proverb "When elephants fight, it is the grass that suffers." is equivalent to this Vietnamese one "Trâu bò húc nhau ruồi muỗi chết." (When buffalo and ox fight, it is the fly that suffers).

The word "elephant" in source language is translated "*buffalo and ox*" in the target language, "grass" in source language is translated "*flies*" into the "target language". The change of the animal images to express the same idea here is quite successful but the animal images in the source language "elephant, grass" is replaced with the image of "*buffalo and flies*" has lost part of culture in the expressing of the source language, but it make the readers of target language easier to understand and more acceptable.

## c. Liberal or Literal translation

Sometimes the translation of animals words in source language must be omitted because it is difficult to find an animal that has the same concept in target language.

For example the English proverbs "*The leopard does not change his spots*." is translated "*chứng nào tật đó*" hoặc "*non song dễ đổi, bản tính khó dời*" (it is easier to move the mountain than to move the habit). The image of the leopard and its spots is not translated in Vietnamese (target language)

However, the literal translation and liberal translation cannot support efficiently the communicating and getting knowledge of the two languages. So people tend to combine the two methods in translating. Animal words when being translated literally may not cause any cultural problem but it may be misleading or cause misunderstanding.

Besides omitting animal words, the translators have to add more words into his original text to explain it more. If we keep translating literally, readers may be confused or misunderstand. However if the translators add some more words in the text, the sentence is still considered faithful and accurate to the original text.

For example, the word "bees" is added to the translated sentence: "A *swarm in May is worth a load of hay; a swarm in June is worth a silver spoon; but a swarm in July is not worth a fly.*" (a swarm of bees in May is worth a pile of hay, a swarm of bees in June is worth a silver spoon, but a swarm of bees in July is not worthy price of a fly.)"(một bầy ong vào tháng năm thì đáng giá một đống cỏ khô, một bầy ong vào tháng sáu thì đáng giá một cái muỗng bạc, nhưng một bấy ong vào tháng bảy thì không đáng giá một con ruồi.) gave moral lessons to beekeepers. Liberal translation here would make the proverb clearer for readers of the target language.

Generally speaking, through practice we can see that the literal translation and liberal translation will not repel each other, but instead, they are interchangeable, support, complement each other, associated together and penetrating into each other. They can not be determined by the subjective wishes of the translator but they are determined by the nature and characteristics of the target language. In translation, the concept of cultural of the animal words from English to Vietnamese, especially the differences should be taken into consideration. In this way, the true meaning, the concept of culture from the animal can only be expressed. Otherwise, by ignoring the concept of the cultural differences from the animals only in English and Vietnamese can create barriers in the translation, and thus will create misunderstanding and confusion or mistake and unnecessary.

# 5. Conclusion

From the analysis and comparison of the animal words in English and Vietnamese, we can conclude that the animal words in English and Vietnamese culture have some similarities, but there are still significant differences. From these similarities and differences we can choose the appropriate method to translate in order to fit the culture and interpretation of the source language (English) into the target language (Vietnamese) to avoid misunderstanding, and becoming unnecessarily vague.

## Bio Data

**Vo Van Dung**, Ph.D. work place: University of Khanh Hoa, Nha Trang city, Vietnam Address: 01 Nguyen Chanh Street, Loc Tho Ward, Nha Trang city, Vietnam Cellphone: (+84) 948666159. Email: <u>vovandungcdk@gmail.com</u>

**Vo Tu Phuong**, Ph.D. work place: University of Khanh Hoa, Nha Trang city, Vietnam Address: 01 Nguyen Chanh Street, Loc Tho Ward, Nha Trang city, Vietnam Cellphone: (+84) 166 6631871. Email: <u>votuphuong80@yahoo.com</u>

# References

- Archer Taylor. (1931). *The Proverb*. Cambridge, MA: Harvard University Press. Brown Gillian – Yule George, (1983), Discourse Analysis (Cambridge Textbooks in Linguistics), published by Cambridge University Press
- 2. Chu Xuân Diên, Lương Văn Đang, Phương Tri (1993), Vietnamese Proverbs, Social Science publisher.
- 3. Eugene A Nida, (1993) *Language, Culture, and Translation* (Shanghai Foreign Language Education Press, China,)

- Honeck, Richard P; Lawrence Erlbaum Associates (1997). A Proverb in Mind. *The Cognitive Science of Proverbial Wit and Wisdom* [online] Available: <u>http://books.google.com/books</u>
- 5. Mieder (Ed.) *Wise Words. Essays on the Proverb.* New York: Garland Publishing Inc., 297-316.
- 6. Mieder, Wolfgang. (1993). *Proverbs Are Never Out of Season. Popular Wisdom in the Modern Age.* New York: Oxford University Press.
- 7. Mieder, Wolfgang. (2004). *Proverbs A Handbook*. Westport, CT; Greenwood Press.
- 8. Nguyễn Lân (2008), *Dictionary of Vietnamese idioms and proverbs*, NXB Khoa học Xã hội, Hà Nội.
- 9. Nida, Engine A. & William D. Reyburn (1993). *Meaning Across Cultures* [M]. England: Maryknoll of N. Yoybis Book.
- 10. Rowland, Durbin. (1926). "*The use of proverbs in beginners*' classes in the modern languages." *Modern Language Journal* 11:89-92.
- 11. <u>https://en.wikipedia.org/wiki/Proverb</u> (assessed date 26/09/2015)
- 12. Speake, J. *Dictionary of Proverbs*. (2008), Oxford University Press.

Creative Commons licensing terms

Authors will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of English Language Teaching shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a <u>Creative Commons Attribution 4.0 International License (CC BY 4.0)</u>.