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Mirroring Effects and the Water Code: A Cognitive-Semantic Approach to Natural Morphology in the Religious-Cultural Context

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Abstract

Word formation is an important part of the morphology and vocabulary building. However, the systematic study of the word formation has not been widely enough and there were few studies which looked at the religious words and their formation. In this study, we looked at the word formation of a limited class of words, but significant in their cultural and religious importance. The question of why some religious words across many different languages are apparently similar is responded here. In fact, we proposed the mirroring effect as a systematic way of word formation which particularly affects the words in religious framework. Our framework in the natural morphology and the results are therefore applied cross-linguistically to other languages. This study therefore shed light on the field of morphology and semantics and solves some of the problems regarding the observed similarity of words and word formation processes across languages.

Introduction

Languages are classified based on their morphology and morphology itself is derived from word formation. Therefore, having a clear way about the word formation can help clarify some of the phenomenon observed across languages. Lieber (1992) investigates the morphology and processes of word formation which he tries to derive their rules through the syntax. In fact, he considers the same processes of syntax are responsible for word formation in the morphological level. Singh (2018) investigates the inflectional morphology and introduces the novel concept of basket verb as a cognitive storehouse for the whole sentence in mind before constructing the phonological final form. Dressler (2005) goes through the natural morphology in order to derive rules of word formation. In the natural morphological level, morphological rules are considered rather cognitively simple, elementary and universally preferred. We also consider the natural morphology as one of the best paradigms to account for the apparent diverse rules of word formation across languages. In fact, in our study, we also work on the natural morphological level since we believe that words are derived from thoughts and there is no reason to make the thoughts more complex by imposing a very limited and complex rule on them. Corbett (2010) investigates the derivational morphology through the canonical typology. Though the results are promising in terms of explaining the derivational word formation, still the application is reserved to derivational morphology exclusively. Singh (2018) works on the learning processes that affect Persian learners of Hausa language which clarifies some morphological formations such as compound building, not known in a normal first language acquisition. Schmid, Fitschen, and Heid (2004) propose a computational model for German word formation which covers both derivational as well as inflectional morphology. Though the proposed model words for German word formation, it still cannot bring adequate explanation of cross-linguistic similarities of some words which are related semantically. In fact, it is hard to explain by a computational model the traceability of words and the justification for the apparent modified words. Booij (2010) looks through the interplay between phonology and morphology, and investigates the morphology based on the parallel architecture and construction grammar. Again the similarities between syntactic and morphological processes are highlighted, but the fact that words often act as if there was no rules is less emphasized. Singh (2018) investigates the role of language interaction in the language change by proposing a mathematical model which can predict some of the change. The point he makes is important as it shows that morphological processes are also influenced by the outside languages under special conditions. Ravid (1990) studies the new word formation devices in Modern Hebrew and focuses on devices which are more productive. He shows that despite the apparent differences, the new devices still follow the main aspects of the older devices. It is significant as it shows that speakers do not invent from nothing a whole new system, and the interconnectivity between word formation devices is an important point. Olsen (1999) investigates the morphological processes in Armenian, which is an Indo-European language and goes through words which are cognates with other IE languages to show how Armenian possesses an interesting and independent morphological position among Indo-European languages. The fact that in that study the word formation is stressed is important since what we also try to prove is that word formation is an important, semantically loaded process which is in many regards independent of syntax. Malkiel (1954) points out to the importance of studying word formation while having etymology as an essential component of the study. In fact, what we also follow is the same principle of essential relatedness of morphology with etymology. Clark (1998) investigates the process of word formation in the framework of language acquisition where the morphological

rules chronology in language acquisition is also emphasized; though still the important point about the cross-linguistic comparable words which are not derived by specific rules are not discussed. Singh (2018) analyzes Persian and Norwegian spatial prepositions which show that there are some basic rules that can be even derived by mathematical formulae.

When it comes to the word-formation, many different ideas are put forward by the linguists so that a clearer origin for the common words we use in our daily life can be found. However, there is a group of words, where we find it hard to account for their origin: we know them as words. Sacred words are further divided into two main subgroups; these subgroups are cultural and religious sacred groups. Words such as water are considered to be sacred in many different cultures around the world, and since languages are influenced by the culture, therefore we should have a way to find a systemic view to the whole sacred word group. The other important notion is that in many languages, regardless of belonging to the same language family, there exist similarities between them, often neglected in the past. In this study, we concentrate on some of these words and we derive a cognitive-semantic model which captures an interesting regularity in the way they are formed. If we go on to connect the words which are derived by the same process, then a network of words with the same semantic relevance can be built up.

Water code
Human mind is flexible in approaching the abstract culturally loaded notions. One of such notions is water which is sacred in many different cultures around the world, as water is connected to the notion of life and genesis in many religious books. When it comes to the formation of word "water", we can see how different cultures used almost the same instruments to convey this important notion, namely the mirroring effect. By mirroring effect, it is meant the effect of mirror or reflex of water. Thousand years ago when people wanted to look at themselves, the best way was to use water to reflect on themselves or whatever they wanted to be reflected. Let's look at some of the word formation by mirror effect. In Figure1 word "water" in different languages is explained by the mirror instrument and in Figure2 the mirroring effect is illustrated.
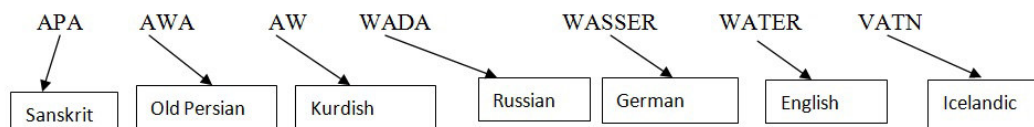

Figure1. Word "water" in different languages through the mirror instrument analysis
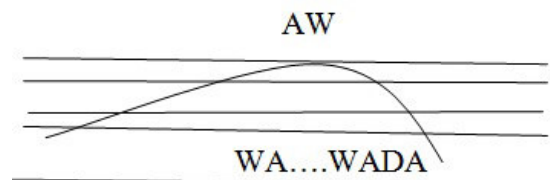

Figure2. Mirror Instrument and reflection of the word AW (water in Old Persian) on the water

As it can be seen, the word" AW" was seen as reflected in the water to form "WA" and then "WADA" which is just the result of imposition of DA on the WA. It is true that one can find other explanation for the origin of water, but definitely the mirror instrument is a great candidate for such an interesting word formation across many different languages. Even in Arabic, the word for water is MA' which can be a cognate to the WA before becoming WADA in Russian as illustrated in Figure3.
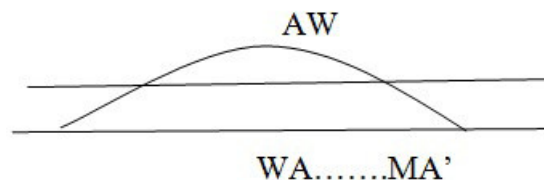

Fig3. Arabic cognate for water

Magic word "water"
Another interesting point about the water is the usage of sound to make meaning. In Persian, we have the verb "SHOSTAN" which means to wash and then its root which is "SHUUY". Now, in an interesting phenomenon, we see the Chinese cognate "XUE" pronounced as "SHUE" which means water. This is definitely extraordinary knowing that Chinese is a completely different language, not even related to any Indo-European languages. Again here, we can use ME (Mirroring effect) to get to the English word to wash. It is illustrated in Fig4.
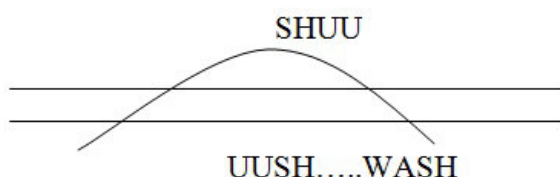
Fig4. Chinese word for wash through the mirror instrument

Magic word cow

Every nation has some important cultural notions which affect the way society views its surroundings. Cow was holy for Indo-European people, and we have much evidence for such an importance in the books of history; we have a country like India where for Hindus cow is considered to be sacred, and in ANCIENT Persia, and Zoroastrian religion in particular, the cow was considered holy and sacred. When we look at the word cow in many of Indo-European languages, we again can see an extraordinary case for the mirror instrument and reflection. In Figure5, the word cow and its mirror effect is shown. In Figure6 word cow in many different Indo-European languages is illustrated.
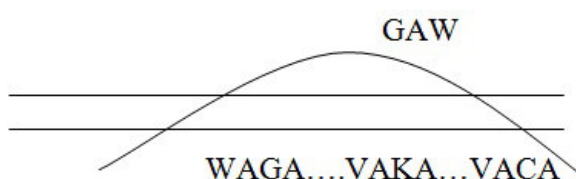
Figure5. Word cow from Persian to Spanish through the mirror instrument effect
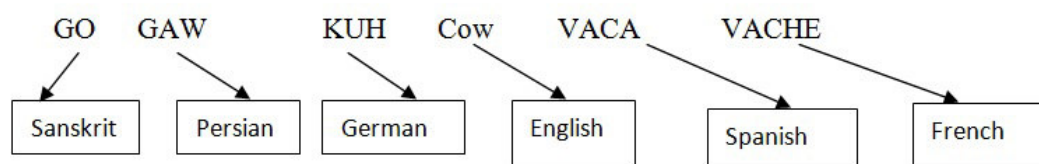
Figure6. Word cow in different Indo-European languages

The Mirroring Effect principle

It is then important to know how much we can gain insight through the ME (mirroring effect). There are three important conditions to apply mirroring effect as follows:
1. The word should be regarded as highly sacred and culturally significant.
2. The beginning of the mirrored word is fixed.
3. The end part of the mirrored word varies according to the cultural differences.

Therefore, it is necessary to apply the ME only in the cases where we know there has been an important cultural significance. Another important word which its origin and formation can be explained by the mirror reflection is the word horse in German as It is illustrated in Figure7.
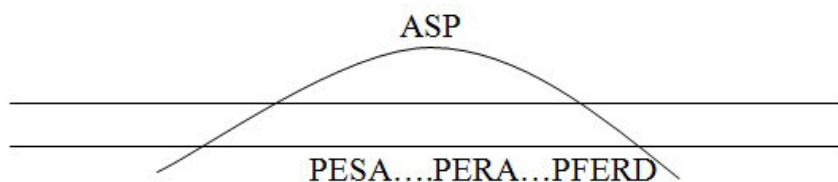
Figure7. Word horse in German from Persian through the mirror effect

Mirror effect clearly affected many words initially and we see that many words which were culturally and religiously considered important were modified based on the mirror effect which is symbolized in the water and its mirroring effect.

The magic words dog and cat

We can account for the apparent similarities of words for dogs and cats through the mirroring effect. In Figure8 and Figure9 the word derivation processes for word "dog" and "cat" in different languages are illustrated.
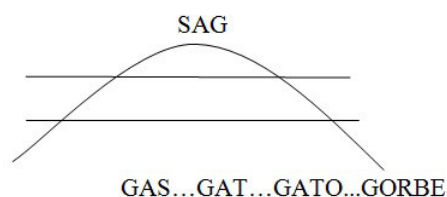
SAG

GAS…GAT…GATO…GORBE

Figure8. Word sag (dog in Persian) converted to word gato (cat in Spanish) and gorbe (cat in Persian) by mirroring effect
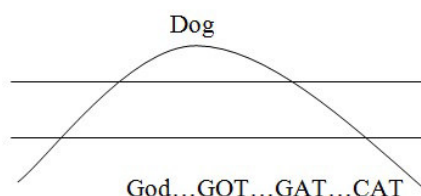
Dog

God…GOT…GAT…CAT

Figure9. Word dog in English is converted to word cat by mirroring effect

The fact that we could derive words that are semantically connected from just one word is significant. Cats and dogs are proven to be connected semantically though different experiments which show people relate these words and this makes the mirroring effect even more robust and important.

Implications

One of the most important implications of the mirroring effects is in the second language acquisition field. The fact that we can show many words are derived by the ME can help students to plan learning strategies. The other important area is the cultural studies whereby we can see the inter-connection between words in a systematic way, explaining some possible cultural reasons for such a system. The fact that the ME is seen rather in a cultural heavy, and religiously important words, brings important implications in the study of cultures and their mutual influences.

Conclusion and results

In this study we showed how the important principle of mirroring effect affects many word formation processes. In fact, one of the mysteries behind the intuition in words which are similar in some senses can be accounted for by the ME. One of the important characteristics of the ME is that it describes a cognitive process which was productive in early language formation and some of the borrowings between languages were also affected by it. Mirroring effect defines some of the borders that exist between cultures and languages, and also shows the convergence between them. The fact that cultural words are constructed by a special process which derives from the holy water mirroring effect sheds light on the huge cultural implication of such a linguistic process. Here, the culture lives with language in a harmonic way with traces which are so natural that they have not been investigated in a thorough way. In this study, we introduced this interesting phenomenon which definitely will lead to future research in this promising field. The other important contribution of ME is in building a systematic network of words which were somehow related in an earlier period of language formation. This systematic network can help clarify some of the cognitive processes which are responsible for language acquisition and language development. The fact that the ME is primarily a semantic model shows that it can be integrated in any cognitive model simulating the language function.

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