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UNIVERSAL MODELS OF POLYSEMIOUS NOUNS IN ENGLISH AND GEORGIAN
LANGUAGES

Abstract

This paper presents the results of a comparative study of polysemous words to reveal universal models of nouns in the English and Georgian languages. The study examines the models of nouns denoting the body parts (*hand, head*), facial parts (*eye, mouth*), as well as the names of the internal organs (*heart, brain*) through comparing them with the same group words in the Georgian language. The research through the methodology of definitional analysis, contextual analysis and corpus analysis, revealed that these noun groups represent the same type of model that professor Tinatin Margalitadze named as **solar model** (Margalitadze, 2008). I present the sub models of the mentioned solar model; I further distinguished a **long-ray solar model** and a **short-ray solar model**. The research is part of my thesis on universal models of polysemous nouns in the English and Georgian Languages. In this paper I will discuss the example of the comparative study of the noun “eye” to present the results of the research.

Keywords: *contextual analysis, polysemic nouns, solar model.*

Introduction

This article is a part of a more comprehensive study within the framework of my PhD thesis aimed at analyzing universal models of polysemous nouns in modern English and Georgian languages. The research was carried out on the nouns of several thematic groups, namely the nouns denoting the parts of the body (*hand, head*), the nouns of facial parts (*eye, mouth*) and the nouns denoting internal organs (*brain, heart*). The above-mentioned nouns were selected for the research based on the rich number of polysemous meanings they present. The study was conducted using the following methods: analysis of dictionary definitions (definitional method

of analysis), contextual analysis and the corpus research method. This article presents the analysis of results from the research that is part of my thesis, based on the comparative study of thematic groups in both languages mentioned above. The example of the noun *eye* is presented for the visualization of the study's results, since the noun *eye* is the source of more than 32 meanings in English language that give considerable grounds for comparative analysis.

1. Methodology

1.1 Methods of Analysis

This work is carried out with the methods used by Professor Tinatin Margalitadze to reveal universal models of polysemy of various parts of speech (T. Margalitadze, 1982, 2006, 2014)

I used the following dictionaries to analyze the definitions: The Oxford English Dictionary on Historical Principles, Webster's Third New International Unabridged Dictionary, English language dictionaries (Cambridge Dictionary, McMillan Dictionary, Dictionary.com). For the contextual analysis of the given nouns the corpora of Georgian (Georgian National Corpus)¹ and English languages² were used as well as British National Corpus (BNC) and English Web 2013 (enTenTen13)³. The study was conducted following several steps. First, I identified the basic senses of each noun and described their polysemous meanings through the methods mentioned. For the next step I identified the semantic components of the word meanings through the method of definitional analysis. For the third step, the relationship between the semantic components and the polysemous meanings of the words were analyzed, and for the final step polysemous words were graphically illustrated to demonstrate the results.

1.2 Models of Polysemous Nouns

Unlike English, Georgian words are not highly polysemous, though the above-mentioned nouns proved to be quite polysemous in the Georgian language as well. Thorough analyses showed that nouns denoting facial parts (*eye, mouth*) have more than 20 meanings in both

¹ Georgian National Corpus - www.gnc.gov.ge

² www.corpus.leeds.ac.uk/internet.html

³ <https://www.sketchengine.eu/>

languages. The goal of such analysis was to reveal the universal models of nouns in English and Georgian. My hypothesis was that models of investigated nouns would coincide with the model of polysemous nouns in English, described by T. Margalitzadze (Margalitzadze, 2008), which she termed the **Solar Model**. My study has shown that the solar model is a universal model of polysemous nouns in English and Georgian. I have identified and described two subtypes of this universal model: a **short-ray solar model** and a **long-ray solar model**. In a **short-ray solar model**, polysemous meanings of a noun develop from its main meaning, from the semantic components of the main meaning. Each semantic component gives rise to one, two or maximum three meanings, therefore, graphically such nouns resemble the sun with short rays (see Figure 1.).

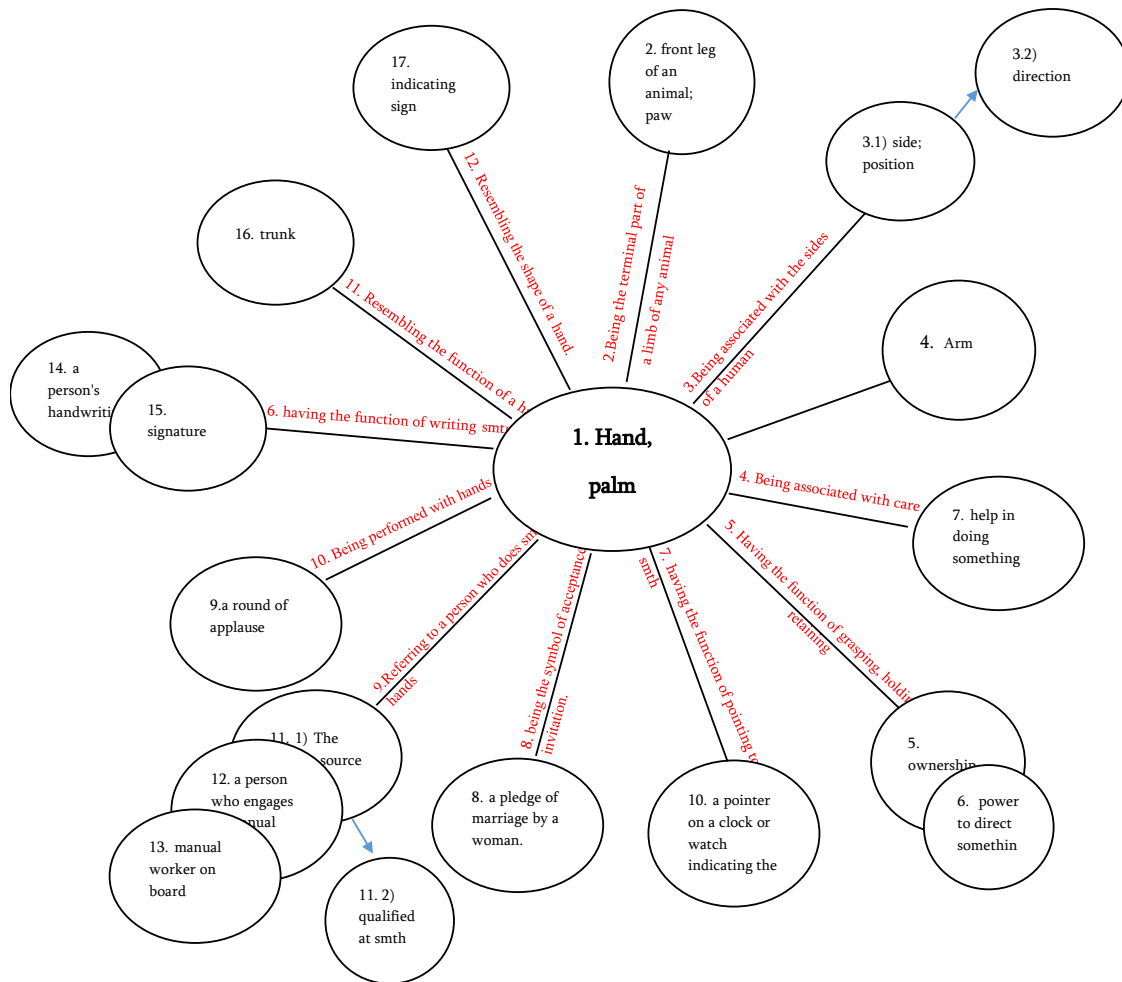


Figure 1. – Hand, a **Short-Ray Solar Model** in English

In a **long-ray solar model**, polysemous meanings of a noun also develop from the semantic components of the main meaning, but one or two of its semantic components become the basis for the development of several meanings and such nouns graphically resemble the sun with long rays (see Figure 2.).

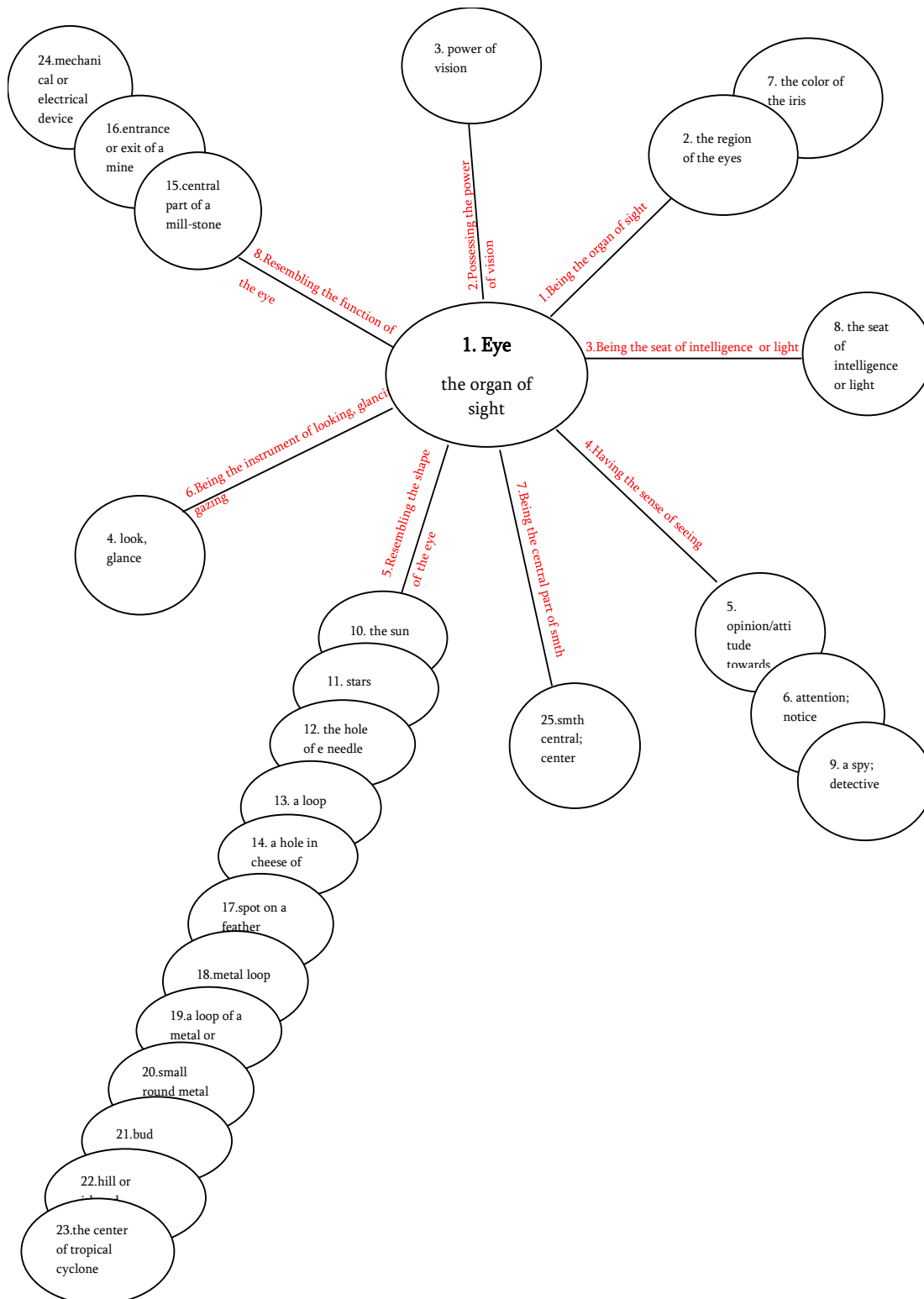


Figure 2. – Eye, a Long-Ray Solar Model in English.

2. Results/Findings

The results of the study, as mentioned above, are presented on the example of the noun *eye*. The study of the above-mentioned polysemous word has shown that the word *eye* has 25 different meanings in English and 14 in Georgian, the most important of which are meanings based on the metaphor. The majority of word senses of the Georgian noun *eye* are identical with the meanings of its English counterpart. Among these, 8 meanings of *eye* in Georgian coincide with the meanings of the word *eye* in English. The fact that, *eye* has 6 additional senses in Georgian and 17 in English proves once again that English nouns are highly polysemous, also this shows that even such words as *eye* may have different meanings based on different metaphors in English and Georgian.

Below is the list of meanings of *eye* in English and Georgian languages:

Eye - polysemous meanings in English

1. **eye**; the organ of sight;
2. taken as including the eyelids, or the surrounding parts; **the region of the eyes**
3. Used to refer to someone's **power of vision** and in descriptions of the direction of someone's gaze; weak eyes, good eyes.
4. **look, glance**;
5. Used to refer to **someone's opinion or attitude towards something**.
6. **attention, notice**;

Eye - polysemous meanings in Georgian

1. **eye**, the organ of sight;
2. taken as including the eyelids, or the surrounding parts; **the region of the eyes**;
3. **vision**;
4. **Look, glance**;
5. Used to refer to **someone's opinion or attitude towards something**.
6. **attention, notice**;

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| 7. with adjs. denoting the colour of the iris; | 7. the surrounding of the eyeball; |
| 8. fig. Applied to a city, country, province, etc.:
The seat of intelligence or light; | 8. fig. Applied to a city, country, province, etc.: The seat of intelligence or light; |
| 9. Applied to a person who uses his eyes on behalf, or instead, of another. spec. a detective agency or a detective , esp. a private one; | 9. a precious stone. |
| 10. Poet. attributed to heaven, the sun ; | 10. the eye of a woven ; |
| 11. <i>poet.</i> stars ; | 11. the eye of a wheelbarrow ; |
| 12. The hole or aperture formed to receive the thread; the hole in the needle ; | 12. the power of perception, notice ; |
| 13. A loop at the end of a rope, especially one at the top end of a shroud or stay; | 13. attitude towards somebody ; |
| 14. A small hole or hollow in bread or cheese ; | 14. external impression. |
| 15. the central part of the mill-stone ; | |
| 16. entrance or exit of the mine/den; | |
| 17. One of the spots near the end of the tail-feathers of a peacock . | |
| 18. A small metal loop into which a hook is fitted as a fastener on a garment | |
| 19. A loop of metal or thread in a 'hook and eye', esp. that used as a fastening in dresses; | |

20. a small **round metal loop** for hanging the curtains;
21. the axillary bud; **the leaf-bud of a potato**;
22. Applied in local names to a prominent natural object, **such as a hill or island**;
23. **an area like a hole in the center of a tropical cyclone** marked by only light winds or complete calm with no precipitation;
24. A **mechanical or electrical device resembling an eye** in its function or appearance;
25. something **central**; **center**.

2.1. Polysemous noun eye in English

Based on the analysis of dictionary definitions I have identified the following semantic components for the noun *eye* in English:

1. Being the organ of sight
2. Possessing the power of vision
3. Being the seat of light
4. Having the sense of seeing
5. Resembling the shape of the eye
6. Being the instrument of looking, glancing, gazing
7. Being the central part of something
8. Resembling the function of the eye.

Below will be shown links between the semantic components of *eye and* its senses in English. Semantic components listed above are the source for the development of polysemous meanings of *eye*.

- Sense 1- **the eye, the organ of sight** - is derived from the basic semantic component - *Being the organ of sight*;
- Sense 2 (**the region of the eyes**) derived from the main meaning – *being the organ of sight*;
- Sense 3 – **power of vision** - developed from the second semantic component - *possessing the power of vision*;
- Sense 4 – **look, glance** - developed from the sixth semantic component - *being the instrument of looking, glancing, gazing*;
- The fifth semantic component - *resembling the shape of the eye* - is the most productive in the structure of the given polysemous noun. The semantic component *resembling the shape of eye* gives rise to the following meanings:
 - *poet. the sun* (10th);
 - *poet stars* (11th);
 - **the hole of a needle** (the 12th meaning);
 - **a loop** (13th);
 - **the hole or hollow of bread or cheese** (14th);
 - **circular figure (on peacock's tail)** 17th meaning; the same semantic component is basis for the majority of technical meanings (18, 19, 20) and the 21, 22, 23rd meanings.
- Sense 7 (**the color of iris**) - also derives from the main meaning – *being the organ of sight*;
- The seventh semantic component - *being the central part of smth* – is the basis for the 25th meaning - **something central; center** (or location or significance);

- Sense – **the seat of intelligence or light** - is based on the third semantic component - *being the seat of light*;
- The eighth semantic component - *resembling the function of the eye* is the basis for such meanings as: 9, 15, 16, 24.
- The 9th meaning - **a detective**, is a very interesting sense that has also evolved from the meaning gaze, look, The Oxford dictionary explains the evolution of this meaning as follows - *applied to a person who uses his eyes on behalf, or instead of another*.
- Sense 5 – **someone's opinion or attitude towards something** - developed from the polysemous meaning of the given word - gaze, namely, it means a way of looking at things and the sixth meaning – **attention, notice** - is also evolved from the meaning - gaze, since the gaze usually means attentively looking at something.

Graphically, the above analysis can be presented as follows (see Figure 3.)

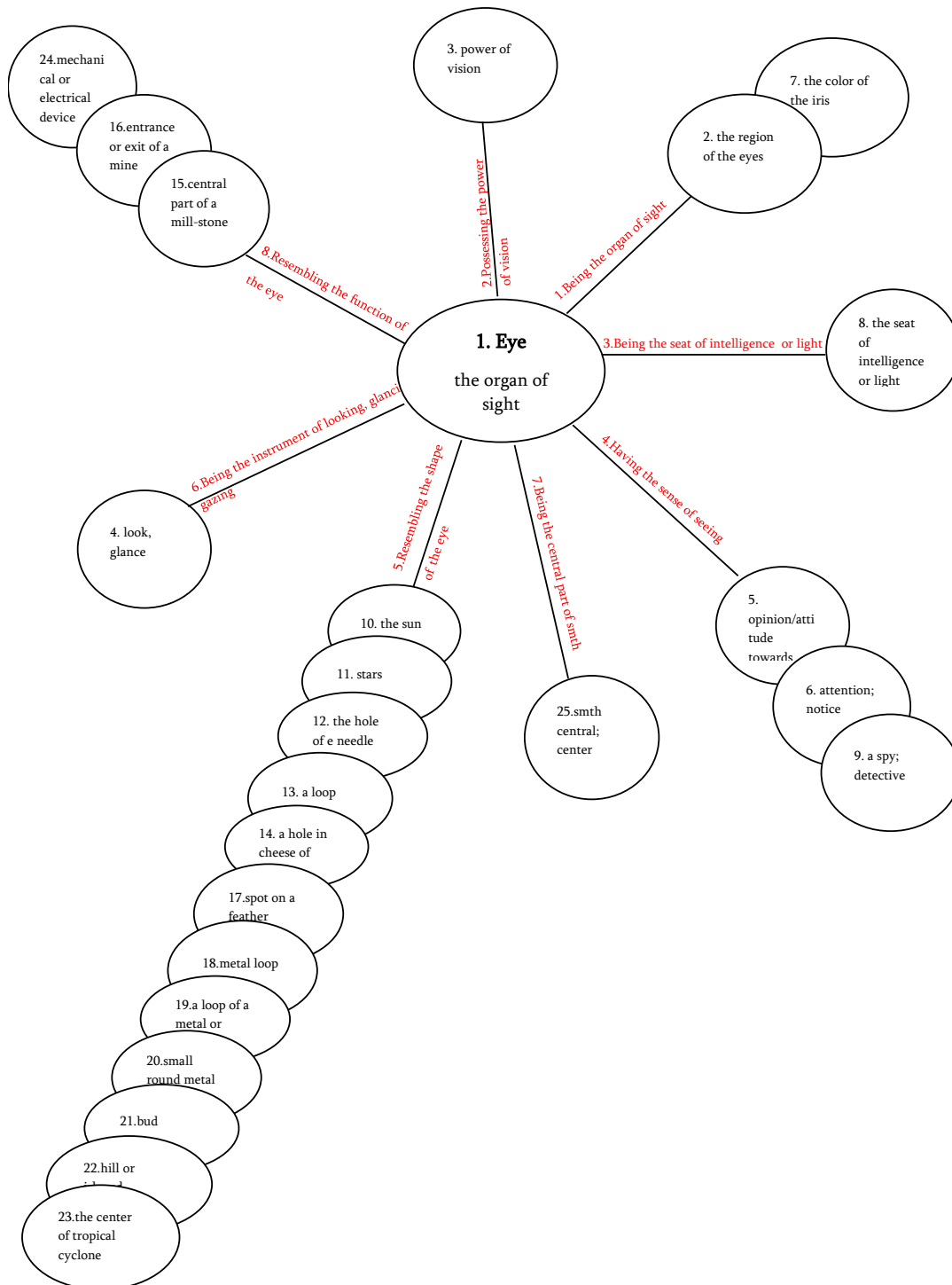


Figure 3. **Eye** – a Long-ray Solar Model in

English.

*2.2. Polysemous noun **eye** in Georgian.*

Analysis of dictionary definitions revealed the following semantic components of the Georgian noun *eye*:

1. Being the organ of sight
2. Possessing the power of vision
3. Being the seat of light
4. Having the sense of seeing
5. Resembling the shape of the eye
6. Being the instrument of looking, glancing, gazing.

Below will be shown links between semantic components and senses of *eye* in Georgian.

- Sense 1- **the eye, the organ of sight** - is derived from the basic semantic component - *Being the organ of sight* similarly as in the case of its English counterpart.
- Sense 2 - **the region of the eyes** and sense 7 – **the surrounding of the eyeball** also derive from the main meaning – *being the organ of sight*;
- Sense 3 – **vision** - develops from the second semantic component - *possessing the power of vision*;
- Sense 4 – **look, glance** - developed from the sixth semantic component - *being the instrument of looking, glancing, gazing*;
- The fourth semantic component is the most productive among the other semantic components of the ‘eye’ in the Georgian language being the source of five different meanings of the noun as follows: having an opinion/attitude towards something; attention/notice; the power of perception; attitude towards somebody and external impression on something/somebody.
- The fifth semantic component - *resembling the shape of the eye* - is the source for three senses of the given polysemous noun:
 - *Eye, a precious stone*
 - *Eye, the eye of a woven*

➤ *Eye, the eye of a wheelbarrow*

- The Sense – **the seat of intelligence or light** - is based on the third semantic component - *being the seat of light*.

Thus, the Georgian polysemous noun *eye*, like its English counterpart, also represents a long-ray solar model (see Figure 4.). The analysis has revealed that the same meanings of the noun *eye* are based on the same semantic components in both languages, however the same semantic component may develop far more meanings in the English language than in Georgian as in the case of the semantic component *resembling the shape of the eye*.

The result of the study demonstrates that the noun *eye* is a clear-cut example of a long-ray solar model, which develops one long ray – a semantic component leading to a number of senses, but based on different semantic components in the languages discussed. In English it is the fifth semantic component (*resembling the shape of eye*) that creates a long-ray, whereas in Georgian the fourth semantic component (*having the sense of seeing*) develops a set of meanings that result in a long-ray. The same analysis is conducted on other nouns included in our study, resulting in the same Solar Models.



Figure 4. **Eye** – a Long-ray Solar Model in Georgian.

3. Conclusion

Our study of polysemous nouns has revealed that **the solar model**, described by T. Margalitadze is a universal model of nouns not only in English but also in Georgian. The

subtypes, identified by us during the research, namely: a **short-ray solar model** and a **long-ray solar model** are also universal for English and Georgian nouns.

The **solar model** seems to suit the nature of nouns very well. Nouns denote different objects of reality which contain numerous features, reflected as numerous semantic components in their semantic structures. From this point of view nouns differ from adjectives which denote one feature of things and therefore are 'poor' in semantic components. Numerous semantic components of nouns give rise to transferred senses which spread around the main meaning of a noun like rays of the sun, creating a radial polysemy. Thus, the solar model reflects the nature of the noun itself, while the richness of its semantic components is clearly visible in its universal polysemous model.

I find the results of this type of comparative study useful in teaching foreign languages. It is true that polysemy has been a headache for learners, when they have to memorize a number of meanings of one single noun. This research can be used to provide students with an in-depth understanding of word senses and their semantic links with primary and transferred meanings of a noun. Instead of just memorizing words and their senses, this research may offer a more productive way of learning vocabulary. My experience has shown that students enjoy to see and realize cognitive mechanisms of development of transferred senses of polysemous words, this makes the learning process easier, more interesting and enjoyable for learners.

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Author's biographical data

The author of the article is a PhD student specializing in lexicography, who has ten years of working experience as an English language teacher and during the last few years she has been actively testing the results received through the examination of polysemous nouns in English in her classroom. She has presented her work in the field at teachers' conferences and has triggered great interest among English language teachers. She has also developed lesson plans on how to teach certain polysemous nouns discussed in her thesis.