ON THE PERCEPTION OF THE SLOVAK VERBS OF THINKING BY SLOVAK MONOLINGUALS AND HUNGARIAN-SLOVAK BILINGUALS

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Abstract. *The present paper deals with the semantic field of the Slovak verbs of THINKING from the perspective of cognitive semantics and sociolinguistics. It is hypothesized that the results will prove a hierarchical distribution in the field (i.e. a cline from prototypes to peripheries). This opposes the objectivist position assuming categorial homogeneity, with all members meeting the same criteria. Moreover, sociolinguistically conditioned differences are expected to exist between our two samples. The first one, comprising Slovak monolinguals, will serve as a control group. The other one, consisting of their Hungarian-Slovak bilingual peers, will be checked for the influence of the language background exerted on the perception of the verbs. The results seem to confirm the hypothesized hierarchical distribution and throw some light on the role of the language background in the bilingual sample.*

Key words: *bilingualism, cognitive semantics, interference, verbs of THINKING*

1. INTRODUCTION

The world is full of myths and linguistics is, naturally, no different. If the bad thing about myths is people's willingness to accept them, their reluctance to test them appears to be even worse. The real problem arises when an age old myth forms a foundation of an important theory.

These are some of the problems cognitive linguists have been facing from the very beginning. Many of their objectivist opponents seem to have ignored everything that questions their Aristotelian thinking. The very first sentence of Langacker's (2002:1) *Concept, Image, and Symbol* relates this particular obstacle as follows: "despite the diversity of contemporary linguistic theory, certain fundamental views are widely accepted without serious question". This paper discusses the basic tenets of the two contradictory approaches to semantics, particularly the tenets revolving around the conceptual nature of

meaning, and the role of an individual in the meaning processing. The proposed hypothesis is that the meaning of words is not strictly determined and its perception often depends on who is looking. This will be checked by 14 highly polysemantic Slovak verbs of THINKING evaluated by Slovak monolinguals and Hungarian-Slovak bilinguals. It is expected that their perception will differ due to the general hierarchical differences assumed in the semantic field and the sociolinguistic variable of *language background*. Not many things oppose the classical view more, to say the least. Chapter 2 will explain the theoretical background relevant to the debate, the method, material and sample will be described in 3. Section 4 will briefly introduce the results which will be carefully analyzed in 5.

2. BACKGROUND

The last decades have brought about a breakthrough in sociolinguistic studies. To exaggerate a bit, one could even say that the bookshelves in stores and libraries are cracking under the weight of the new introductory handbooks, many of which boast with the label "comprehensive" or "authoritative". This situation almost makes one forget that many of the currently well acknowledged tenets would have been strongly opposed in the near past. Especially when it comes to the interpretation of the semantics of words.

It goes without saying that words are understood on account of their reference to respective mental categories (see, e.g., Jackendoff 1999:36, Cruse 2004:125, Evans & Greene 2006:7). Lakoff (1990:5) believes that this awareness "is with us for more than two thousand years". Its roots and the roots of the classical approach to categorization in general lead all the way back to Aristotle. His theory, even though very old, is still taken for granted by objectivists. According to one of its basic postulates, there must be a set of necessary and (jointly) sufficient criteria which must be met by all category members. An object can be included in a particular category if and only if it possesses all these features. It is therefore an either/or view where things objectively belong, or do not belong to a category. Thus, for instance, all members of the WOMAN category are [+HUMAN] [+FEMALE] [+ADULT]. Arbitrary selection of any two properties will not do, only all three suffice. While this makes perfect sense, objectivists have extrapolated that this holds for every category. According to them, every category can be easily defined on account of features commonly shared by each of its members. There are no central (prototypical) and peripheral members, as their inclusion in the category is always assessed on the same grounds. These ideas and their logical implications gave birth to what is now referred to as the myth of objectivism.

Based on Aristotle's claims, the world is made up of objects with inherent properties totally independent of human existence. If there is a rock, it is a rock with all of its characteristic properties, no matter what one thinks of it. Even if there were no mankind at all, the rock would still remain the same. People acquire their knowledge of rocks by virtue of experiencing their characteristic properties. Experience is therefore the basis for mental representations (which Aristotle called *phantasms*) by means of which the world can be known and understood. Putnam (1998:57) calls it "the similitude theory of reference; for it holds that the relation between the representations in our minds and the external objects that they refer to is literally a similarity". In other words, phantasms resemble the real world objects. Thus, people having connections to phantasms have connections to their referents as well. Since meaning is not encompassed in people's minds but rather in

the objects themselves, it logically follows that there is only one true reality which is *objective*. In addition, the meaning of words is fixed, provided by the fact that the meaning of objects themselves does not evolve. It is this fixed nature of meaning that always enables people to avoid metaphors because their meaning is not precise. To be objective is good and it requires being rational. To be subjective is bad, as one might lose touch with reality (Lakoff and Johnson 187-8).

Surprisingly, this theory was axiomatically sealed for centuries. It was not until the early 1950s that Ludwig Wittgenstein noticed its first major shortcoming by questioning the notion of sufficient and necessary criteria for category membership. Opposing the objectivist, he maintained that different GAME category members do not share any common features, only series of overlapping similarities. Shortly after Wittgenstein, Zadeh (1965) suggested that category boundaries are not always clear cut. The now so popular term *fuzzy edge* is by many traced back to his highly seminal paper *Fuzzy Sets.*

At this point, researchers undermining the deeply rooted myth did not seem to quit. While Zadeh's work had to do with boundaries, Berlin and Kay (1969:6) focused on the very member distribution within them. In their intriguing *Basic Color Terms*, they determined eleven basic colors (black, white, red, yellow, green, blue, brown, purple, pink, orange, and gray) and discovered that the color exemplars provided by the suspects significantly varied unless the suspects were asked to identify the best representatives. When that was the case they tended to finger-point a focal color. Their paper gained widespread attention and highly contributed to the idea that category members are not homogenously distributed but rather hierarchically ordered from central to peripheral ones.

It was Eleanor Rosch (1975) who questioned the classical approach much more deliberately. In addition, categorization was made an issue thanks to her electrocuting research that afterwards laid the foundations of cognitive psychology. She, among many other things, showed that some category members are more prototypical than others and that language users are more likely to adhere to them (cf. Lyons 2005:96). Rosch evidenced this by tasking her subjects with categorizing the pictures of, say, birds. Their reaction time was shorter when a picture featured a bird typical of their environment, e.g. robin. Similarly, when she asked to list a bird, they preferred the prototypical category members over the peripheral ones (e.g. ostriches, penguins, etc.). This also implies that categorization depends on the categorizers. There is no doubt that her results would have differed had she carried out the research in an environment with substantially different fauna (she ran the tests in the USA).

This is consistent with De Groot (2000) who, in regard to bilinguals, claims that the concept of TURKEY changes once a language user gets familiar with the American culture. In the same way, Kecskes and Albertazzi (2007:183) argue that "newly developed conceptual representations may allow bilinguals to see the same phenomenon from different perspectives". The next chapter will show how these observations relate to the semantic field of the Slovak verbs of THINKING.

3. MATERIAL, SAMPLE AND METHOD

3.1. Material

The research focuses on the perception of the semantic fields of the Slovak verbs of THINKING. Even though the list is probably not exhaustive, it surely represents the field

very sufficiently. It includes central and peripheral verbs, and also those somewhere in between. The inclusion of *považovať* 'to regard something as' is probably questionable, but it still has to do with thinking. Some are used very frequently, some occasionally and some are rather bookish. Here is the alphabetically ordered list with the approximate English equivalents (1). It should be noted that just like the English verbs, the Slovak ones are highly polysemantic. Without a doubt, there are more plausible ways of translation.

(1) *domnievať sa* 'to suppose'; *dumať* 'contemplate'; *hĺbať* 'to muse, to think very profoundly'; *hútať* 'to muse'; *meditovať* 'to meditate'; *myslieť* 'to think'; *predpokladať* 'to assume'; *premýšľať* 'to think (about) to cogitate'; *považovať* 'to regard something as'; *rozmýšľať* 'to think (about) to cogitate'; *rozjímať* 'to meditate, to ruminate'; *špekulovať* 'to speculate'; *uvažovať* 'to ponder'; *zamýšľať sa* 'to deliberate'; *zvažovať* 'to consider, to reason'

3.2. Sample and method

The research was carried out at two grammar schools on two samples. Each sample represented a standard Slovak grammar school class. That is, it comprised approximately 30 students, with the ratio of males to females around 1:2. Gender, however, was not treated as a variable, because the literature does not suggest any influence it could have on a study of this kind. Both samples comprised freshmen, i.e. students around the age of 15. The control group consisted of Slovak monolinguals (SAMPLE 1), the other one of Hungarian-Slovak bilinguals (SAMPLE 2). 80% of the second group listed Hungarian as their mother tongue. Later research carried out at the same Hungarian-Slovak school revealed that 20% of the students considered their Hungarian and Slovak equally mastered, 54% had no problems to communicate in Slovak but still preferred Hungarian, the remaining 26% admitted to be significantly better Hungarian speakers. Nevertheless, all students were expected to speak Slovak, as it is a compulsory subject in their curriculum.

The research was conducted by means of a questionnaire. The first side of the sheet had just one task. The students were asked to provide us with the first three Slovak verbs synonymous to the verb *myslieť* 'think' that they could recall. The remaining tasks were on the other side, so as to prevent distortion in the first task. The second task was called *The chart of Synonymity*. It was of key importance, as the information was used as a reference point for every other task. The informants were presented a haphazardly ordered list of the above discussed verbs of THINKING and instructed to determine how synonymous they were to the basic verb *myslieť* 'think'. They were instructed to use a five point scale, with 1 corresponding to very high synonymity and 5, conversely, to very low. In addition, Hungarian-Slovak informants could opt for 0 in case they did not know a verb. In the third task, the informants were asked to list three verbs of THINKING that they used most frequently. The final task had the opposite wording. The instruction was to list three verbs they used least frequently.

On the most basic level, it was hypothesized that the first verbs the informants would come up with would generally correspond to the prototypical (most synonymic) exemplars (cf. Rosch 1975). The same was expected in the case of the most frequently used verbs (cf. Lyons 2005:96). Analogically, the least frequent ones were also expected to be those rated most poorly. The real question was how the variable of language background would manifest in all this. In other words, would there be any signs of Hungarian-Slovak interference (here understood as an involuntary influence of one language exerted on the other, cf., e.g., Baker & Jones (1998:58-65)? It seems like there was.

<div align="center">4. RESULTS</div>

4.1. Slovak monolinguals

Starting with the control group of Slovak monolinguals, we will now introduce the results. The point of departure will be the second task, i.e. *The Chart of Synonymity*, as it is crucial for the overall assessment. The remaining tasks will be introduced in their original order (see 3.2.) A detailed discussed will follow in section 5.

Fig. 1 shows the perception of synonymity in the field as attested in the group of Slovak monolinguals. The verbs are ordered as in the questionnaire. All in all, the semantic field was rated with the average mark of 2.6.
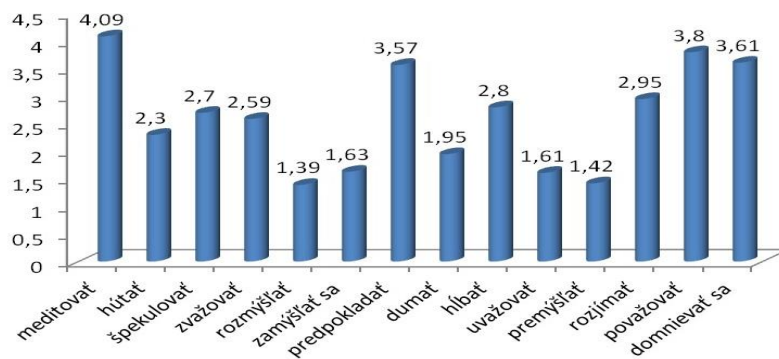
Fig. 1 The chart of synonymity in SAMPLE 1

The following (Fig. 2) shows the representation of the first verbs that the informants in SAMPLE 1 came up with. Their average rate is 1.42.
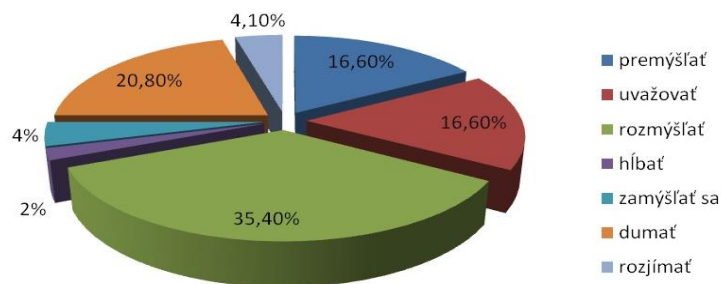

Fig. 2 The first recalled verbs in SAMPLE 1

Fig. 3 presents the most frequently used verbs (average rate 1.54), Fig. 4, to the contrary, the ones used least frequently (averagely rated with 3).
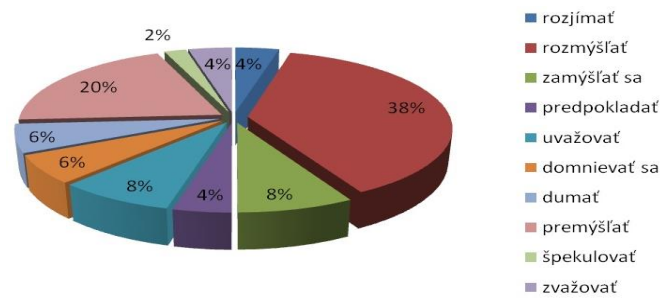
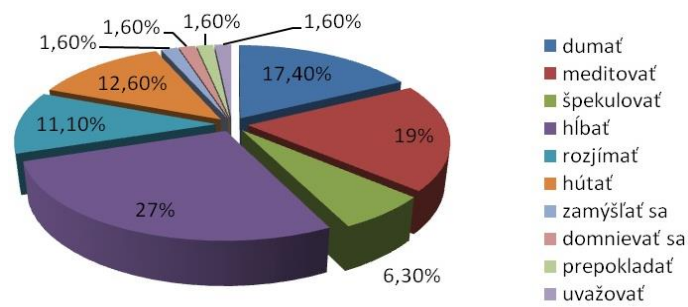**Fig. 3** The most frequently used verbs in SAMPLE 1

Fig. 4 The least frequently used verbs in SAMPLE 1

4.2. Hungarian-Slovak bilinguals

The results obtained in SAMPLE 2 are introduced in the same order. Let us start with Fig. 5 which shows the informants' perception of synonymity. The average mark was 2.8.
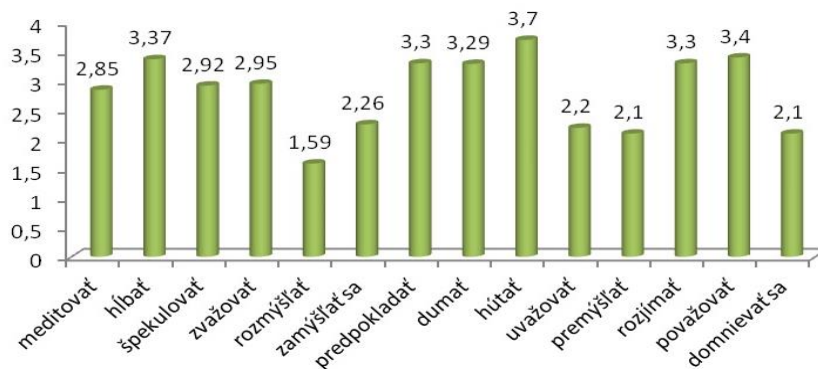

Fig. 5 The chart of synonymity in SAMPLE 2

Upon counting the rates, it was revealed that only *meditovať, špekulovať, rozmýšľať, zamýšľať sa, predpokladať,* and *premýšľať* were known by all students. 68% of the freshmen did not know the verb *hĺbať* and only 40% knew the verb *hútať*. The situation was better in a sample of Hungarian-Slovak graduates, but their results were not taken

into account, as the sample was not statistically significant. The following (Fig. 6) shows the first verbs the informants could think of (with the average rate of 1.43).
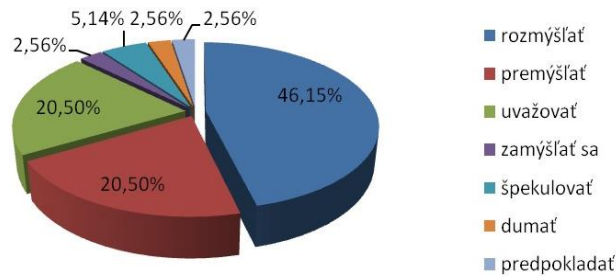
Fig. 6 The first recalled verbs in SAMPLE 2

Thirdly, Fig. 7 deals with frequency of use. The average rate was 2.1.
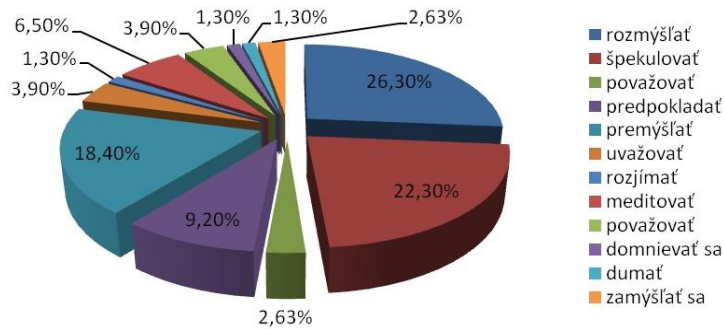
Fig. 7 The most frequently used verbs in SAMPLE 2

The last figure (Fig. 8) shows the least frequently used verbs as attested in Sample 2. The average rate was 2.9.
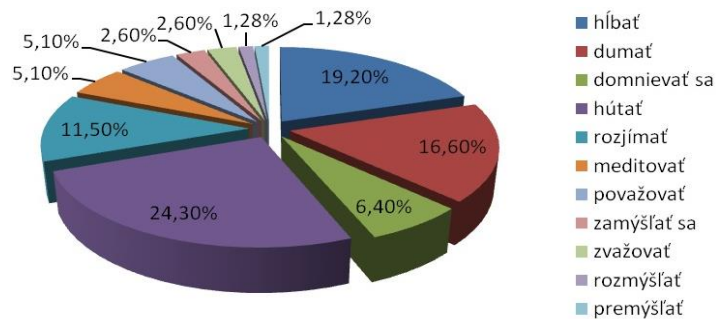
Fig. 8 The least frequently used verbs in SAMPLE 2

5. DISCUSSION

Having introduced the results, let us now comment on how they regard the hypothesis. We will start the discussion with the general hypothesis of category members' distribution. As expected, the verbs were rated differently. Both samples suggest that speakers adhered to what they had marked as prototypes. These are the verbs that were most likely to pop up in their minds when asked to list synonyms of the verb *mysliet'* 'to think'. This aligns with Rosch's study, which was the first one to suggest this tendency. In a similar way, the same held true for the most frequently used verbs. Again, the informants were more likely to prefer good representatives over the worse ones. The rates hit 1.42 and 1.54 respectively in case of Slovak monolinguals. Their least frequently used verbs achieved a considerably poorer average rate, i.e. 3. The very same tendency, although with somewhat different results, was observed in SAMPLE 2. The first recalled verbs had an almost identical rate of 1.43. Even though the rate for the most frequently used verbs was 2.1, this is still significantly higher than 2.9 for the least often used ones.

Let us now outline some differences between the two samples. Even though some level of divergence was expected due to their Hungarian background, it was not clear how this potential interference would manifest. Some scholars (e.g. Romaine 1989:96) propose that the greater the differences between the languages in question, the greater the interference. On the one hand, given the remarkable differences between Hungarian and Slovak, this tendency increases our chances to observe interference. On the other hand, however, our research only allows for interference on the semantic level. Our chances were further increased by the dominance of Hungarian admitted in the sample. In one way or another, Hungarian, being the mother tongue of 80% of our informants, was likely to "leave fingerprints" on their Slovak. This being said, let us consider the results.

Even though the overall average rates for the semantic field obtained in the *Chart* are very similar (2.6 for SAMPLE 1, 2.8 for SAMPLE 2), a deeper analysis seems to reveal some differences. It seems that Hungarian-Slovak speakers generally rated the Slovak verbs with lower marks. While as many as 5 verbs received a rating below 2 in SAMPLE 1, this was the case of only one verb in SAMPLE 2. Conversely, two more verbs exceeded 3 in SAMPLE 2 than it the control group. This could be a result of the Hungarian-Slovaks assessing the Slovak verbs via the Hungarian equivalents. While Slovaks probably framed the 14 verbs against the most general verb *mysliet'*, one has every reason to question whether this was also the case in SAMPLE 2. It might be that the reference point for the latter was the Hungarian verb *gondol* 'to think' and not the Slovak verb. This would correspond to Weinreich's (1968: 9-11) three types of bilingualism. The most optimal type, i.e. *coordinate bilingualism*, is achieved when two languages are learnt in different environments and two equivalent words are thus both linked to their own meanings. When, however, a single meaning is linked to two equivalent words, Weinreich's speaks of *compound bilingualism*. Its pitfall is that the two words might have some (or many) areas of semantic overlap, but also some areas specific to just one language (i.e. they are partial interlingual synonyms). The least optimal scenario is when L2 is learned via L1, which sometimes causes semantic mismatches. With 80% of informants claiming Hungarian as their mother tongue, the interpretation of Slovak verbs via Hungarian equivalents is not that unlikely of a scenario.

This reasoning seems to be confirmed by the verbs *dumat'* and *meditovat'*. Both have Hungarian equivalents that sound very similar, i.e. *dumálni* and *meditálni*. While *dumat'* is a very good synonym of *mysliet'*, implying a profound, careful thinking over a problem, *meditovat'* is not. Even though *meditovat'* can also be used in the sense of 'focused,

prolonged thinking about something', it is hardly ever used this way. A preacher could challenge his people to actively meditate over the Bible, but only occasionally so. It is almost exclusively used in terms of passive meditation as understood in eastern religions – i.e. 'deliberate emptying out of one's mind in order to get in contact with the spiritual realm' (my definitions). When *meditovat'* is used in terms of thinking, it usually comes with a scornful tinge, implying that one's meditation is pointless. This was confirmed in the Slovak *Chart*, where *meditovat'* received the worst rating of all verbs – 4.09. Surprisingly, the same verb did significantly better in SAMPLE 2, where it achieved an average rate of 2.85. The reason does not seem to be semantic, because the top Google searches suggested that the Hungarian verb *meditálni* is used in a similar way. The sites usually had to do with eastern religions, alternative medicine and the like. It makes sense to speculate that the Hungarian-Slovaks rated *meditovat'* higher due to mere orthographic and sound resemblance.

Nevertheless, the different attitudes to *dumat'* are best explained in terms of semantic interference. While its fair synonymity to *mysliet'* was confirmed in the control sample (1.95), our Hungarian-Slovak informants rated it with 3.29. That means they regarded the verb as a worse synonym than *meditovat'* (2.85). Clearly, no competent Slovak monolingual will agree. After consulting the issue with adult Hungarian-Slovak bilinguals, it appears that the Hungarian verb *dumálni* is more often than not used negatively. It more often than not implies pointless thinking (like Slovak *meditovat'*). That is, at least in the Hungarian community living in Slovakia (their idiom has some slovakized specificities that make it different from the proper Hungarian spoken in the Hungarian Republic). Needless to say, the worse rating attested in SAMPLE 2 seems to make sense in this light.

These three results obtained in SAMPLE 2, i.e. the generally worse rating and the perception of *meditovat'* and *dumat'*, clearly seem to speak in favor of interference of Hungarian with Slovak. In other words, the results confirm the role of language background in the categorization of language. It would be interesting to analyze a bigger sample of Hungarian-Slovak bilinguals and possibly observe whether or not the perception would differ in dependence on the level of mastery of the two languages. In addition, our hypothesis seems to be confirmed on its more basic level, too. It was revealed that not all members of the category had the same status. Much to the contrary, language users could distinguish between more central and peripheral members. This was subsequently reflected in their preferences for the former. All these observations are but a tiny piece of the great cognitive and sociolinguistic mosaic put together over the last decades. They agree with Lakoff's (1990:146) claim that "meaning is based on human perception, interaction, and understanding, and is therefore not truth conditional."

6. CONCLUSIONS

The data obtained show that language is not always understood in either/or terms. This clearly opposes the myth of objectivism upheld since Aristotle. No science is immune to false beliefs, which is why empirical research is a must. This probably holds true even more so in humanities, the field in which it is so easy to be complacent with theory without practice. The sociolinguistic endeavor of the recent decades is a good balance keeper, as it deals with the most essential element of the natural language – the speaker(s).

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PERCEPCIJA SLOVAČKIH GLAGOLA MIŠLJENJA OD STRANE SLOVAČKIH MONOLINGVALA I MAĐARSKO-SLOVAČKIH BILINGVALA

U ovom radu biće reči o semantičkom polju slovačkih glagola mišljenja iz perspektive kognitivne semantike i sociolingvistike. Hipoteza je bila da će rezultati ovog istraživanja pokazati hijerarhijsku distribuciju u datom polju, odnosno postepeni prelaz od prototipa ka periferiji. Ovakva hipoteza oprečna je objektivističkom stanovištu, koje podrazumeva homogenost među kategorijama, pri čemu svi članovi zadovoljavaju iste kriterijume. U istraživanju je očekivano da između dve grupe postoje razlike uslovljene sociolingvističkim faktorima. Prva grupa, koja je sastavljena od slovačkih monolingvala, uzeta je kao kontrolna grupa. Kod druge grupe, u kojoj su bili mađarsko-slovački bilingvali iste starosne dobi, ispitivan je uticaj poznavanja ovih jezika na percepciju glagola. Rezultati su naizgled potvrdili hijerarhijsku distribuciju datu u hipotezi i donekle razjasnili ulogu koju pređašnje jezičko iskustvo ima kod bilingvala.

Ključne reči: *bilingvizam, kognitivna semantika, interferencija, glagoli mišljenja*