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AGENT OR EXPERIENCER? A SEARCH FOR THE SUBJECT ROLE IN THE MENTAL VERB *MYŚLEĆ* ‘THINK’ IN POLISH

1. Introduction

Clausal structures may represent either energetic or absolute interactions (c.f. e.g. Langacker 1999: 28). In the former, which involve a transfer of energy from one object to another through physical contact, a prototypical subject constitutes an active agent volitionally exerting force on the other entity. The causer of an event should be considered responsible for and in control of the action, with responsibility and control constituting important agentive properties (Nishimura 1993: 519).

Absolute interactions, on the other hand, involve processes without any reference to causation or a transmission of energy from another participant. Mental experience, whether perceptual, emotive, or intellectual, is a case in point here, where prototypically an experiencer is said to be engaged in the process. “The experiencer (...) resembles the agent to the extent that his involvement in the action is volitional and he has control over the execution of the mental process” (Dąbrowska 1997: 94). Thus, again the performer of the process appears rather “active than passive, conscious rather than lacking consciousness, rational rather than irrational, [and] capable of referring to the objective world and seeing things that are really ‘out there’” (Dąbrowska 1997: 97). As the only active participant, he thus may be considered to take the initiative in a non-energetic mental path extending to the object (Langacker 1999: 31). Schlesinger (1998: 30-38) also treats the subject who initiates the mental process not only as being in control of but also responsible for what he or she thinks.

If, as indicated above, features such as active participation, volition, control and responsibility are present in both types of performers, the question arises whether the distinction between agents and experiencers should be made, and whether it is not simply a matter of terminology or perhaps the presence of force, or lack thereof, that makes the interactions, and hence subject roles, different. It should not go unnoticed that some mental experience resembles an

action or activity more than a state, as it is usually reckoned, and some types of participants are more active, volitional, responsible for or in control of the process than others. Thus, one needs to consider whether all participants involved in mental experience should be ascribed equal status, i.e. that of an experiencer. We shall investigate whether such a clear-cut distinction between agents and experiencers should be made, or whether “Agent and Experiencer are not two clearly delimited notional categories; [and] rather, there seems to be a gradient” (Schlesinger 1998: 21), which suggests the existence of an agent-experiencer continuum. Thus, one might claim that some experiencers are at least quasi-agentive.

In the paper, we focus on the verb *myśleć* ‘think’ in Polish and attempt to find out whether there is any correspondence between the semantic features of the subject and verb grammatical constructions. First, senses of the verb will be identified, and then their subjects will be assigned the four agentive features. Next, on the basis of corpus data the actual patterns of sense use will be searched for by means of an exploratory tool, i.e. Multiple Correspondence Analysis. The tool should help us to see the correlation between the senses and the features. Positive results of our study would confirm the general cognitive assumption that syntactic structures are meaningful, rather than arbitrary and unpredictable.

2. Sense distinction of *myśleć* ‘think’ in Polish

The English verb *think*, construing general mental activity unavailable to external observation “potentially divorced from all outer manifestation” (Fortescue 2001: 16), is highly polysemous. By providing synonyms, Fortescue (2001: 28) divides the sphere of this conscious human process into ‘to think = to believe’, ‘to think = to consider/judge’, ‘to think = to perform unspecified/general mental activity which involves ‘mulling over’ some mental content, and finally ‘to think = to intend’.

Słownik Poprawnej Polszczyzny (‘The Dictionary of Proper Polish’, henceforth *SPP*, 2005) also provides synonymous terms for the Polish equivalent of *think*, i.e. *myśleć* which can be translated as ‘to find relationships between/among things (to meditate, cogitate, understand, judge, consider, think deeply’, ‘to remember, care about something/somebody’ and ‘to intend to do

something'. As can be seen, within the first sense, many distinct synonyms have been provided, which points at a complex nature of the process.

Pawłowska (1981: 149-160) identifies one general sense of *myśleć*, i.e. 'to create linguistic texts in one's mind which are only available to its creator', and three narrower senses, namely 'to cogitate, ponder', 'to consider' and 'to intend', the second being expressed by the phrase *myśleć, że* 'think that' extensively discussed by Danielewiczowa (2002).

In the attempt to find out whether the primary participant of the mental activity of thinking represented by the verb *myśleć* 'think' in Polish, is more agent- or experiencer-like, we have decided to rely on the aforementioned sources, although reference to other, yet also rather intuitive, definitions could be made. As presented in Table 1, five different senses have been distinguished for the analysis, i.e. (i) to remember, (ii) to find relationships between/among things, (iii) to believe in the truth of a proposition, (iv) to intend to do something, and (v) to deliberate, to consider, to think deeply, each representing a different number of features for the subject role. As can be observed, senses (ii) and (v) derive from one sense provided by *SPP*, the distinction being accounted for later in this section. Each sense, together with the features that it has been ascribed, will be discussed below.

Table 1: Sense distinctions of *myśleć* 'think' in Polish and the semantic features of the Subject

Sense	Active	Volitional	Controlling	Responsible
i) to remember	-	-	-	-
ii) to find relationships between/among things	+	-	-	-
iii) to believe in the truth of a proposition	+	+	-	-
iv) to intend to do something	+	+	+	-
v) to deliberate, to consider, to think deeply	+	+	+	+

In the first sense, i.e. ‘to remember’, the subject is non-active, non-volitional, non-responsible and has no control over the process, which means that the subject represents a passive experiencer. Although at a first glance it may look as if memory were something under subject’s control, rather than being passively experienced, psychological findings indicate otherwise. Referring to other psychological sources, Schacter (2002) has described common failures of memory and called them ‘sins of memory’. As he points out, because of the ‘sin of transience’, for example, people forget important information, even if they have put a lot of effort in memorizing it. The ‘sin of absent-mindedness’, very common for most of us, makes us forget where we left our car keys or glasses. Also, our prospective memory, namely remembering to do things, can fail. Other ‘sins’ described by Schacter (2002) include the ‘sin of blocking’, the ‘sin of misattribution’, the ‘sin of suggestibility’, the ‘sin of bias’, and the ‘sin of persistence’. The aforementioned sins make the mind take a passive stance, with the memory being rather experienced than performed. Let us consider example (1). In the English translation, ‘to remember’ appears to be a perfect equivalent of *myśleć*:

- (1) *O ochronie letniskowego domu przed grzybami i owadami trzeba myśleć już wtedy, gdy przystępujemy do jego budowy.*
 ‘One should remember to protect the summer house from fungi and insects when the house is being constructed.’

In this sense, *myśleć* ‘think’ tends to co-occur with the preposition *o* ‘about’ followed by a nominal phrase in the locative case.

Senses (ii) and (v) both constitute kinds of cognitive activity, with cognition understood here as “the mental activities involved in acquiring and processing information” (Colman 2001). However, in this study, acquiring information has been separated from the voluntary processing of information, with the former constituting sense (ii) and the latter sense (v).

Remembering, experiencing sensations and expecting can take the same object. However, as a result of these processes the same object can take a number of forms, or in other words it can constitute ‘modified content of the same genera’ (Husserl 2005). Thus, relying on Husserl’s ideas, we have considered senses (ii) and (v) of *myśleć* as grasping different aspects of mental activity. Sense (ii) denotes ‘finding relationships between or among things’.

Quite frequently, it is an ongoing process with the subject actively participating in it, as in example (2a):

(2)a. *Nowy dzień... - myślał. - Jeszcze jeden nowy dzień...*

‘A new day... – he thought/was thinking – another new day...

Both externality of the cause and the presence of the object, play an important role in Husserl’s distinctions of types of mental activity. As he points out, “[w]e have experience of concrete physical things in external perception, but no longer in memory or in forward-regarding expectation” (Husserl 1983: 6). In sense (ii), the cause of the mental activity is often external, so the subject is unable to stop the process, even if they want to. Thus, the process is not volitional and the subject exhibits no control of or responsibility for the process, which is connected to Husserl’s understanding of experience (or sensation). Consider example (2b):

(2)b. *Widząc postawnego bohatera "Spartakusa" trudno nie myśleć o przemijaniu, o okrucieństwie czasu.*

‘Seeing the handsome protagonist of ‘Spartacus’, it was hard not to think about the cruel passing time.’

Just like sense (ii), sense (v) is also related to cognition. However, cognition is viewed here from a different angle. The subject is the causer of the process, and he or she can induce or stop it, regardless of external factors. The subject volitionally takes up the mental activity, and hence is in control of and bears full responsibility for the process, which relates to Husserl’s distinction between natural cognition (sense (ii)) and something “beyond the narrow bounds of direct experiential givenness” (Husserl 1983: 6), such as for instance empathy, history or the humanities (Husserl 1983). Prototypical for sense (v) are thus philosophical deliberations, as in example (3a) as well as so called folk (or natural) philosophical thinking, as in example (3b):

(3)a. *Ontologia, królowa filozoficznych dyscyplin. W "myślę, więc jestem" Kartezjusz nie dotarł (...).*

‘Onthology, the queen of philosophical disciplines. In ‘I think, therefore I am’ Descartes did not reach...

b. *Nigdy nie powtórzy się to wieszanie prania - myślała. –
Nigdy nie powtórzą się ja.*

‘Spreading of the washing will never recur – she thought.

I will never recur.’

Since the subject is in control and takes responsibility for the mental activity, we have made an assumption, which will be tested statistically, that *myśleć* in this sense will co-occur with a nominal object in the instrumental case preceded by *nad*, as in (4a) and (4b):

- (4)a. *Myślał nad ścisłym, rozumowym wyjaśnieniem tego zjawiska.*
 ‘He pondered over a logical and precise explanation of this phenomenon.’
 b. *Nigdy nie myślał nad tym, żeby przestać palić.*
 ‘He (has) never thought of quitting smoking.’

In sense (iii), i.e. ‘believing in the truth of a proposition’, the philosophical understanding of a proposition has been adopted, with the proposition being either true or false. In linguistics, “[b]y proposition one usually understands the language-independent common denominator of the meaning of sentences which express the factuality of a given state of affairs” (Bussmann 1996). Thus, it can be assumed that propositions are represented with clausal complements which are preceded by *myśleć, że* ‘think that’. We have observed that subjects of such sentences are construed as active and volitional as they are fully aware of their opinions or judgments; however, it is hard to talk about their possessing any control over or bearing any responsibility for the content of the proposition. The lack of control over the external factors is frequently expressed by the second or third person in the subject position of the clausal complement, as in (5a) and (5b), respectively:

- (5)a. *A myśmy myśleli, że pan się zakochał.*
 ‘And we thought that you have fallen in love.’
 b. *Myślę, że to będzie bardzo dobre.*
 ‘I think that it will be very good.’

Finally, in sense (iv) the subject’s mental activity takes place of his or her own will, as a result of which they are capable of manipulating some abstract categories, which however are usually unavailable to the interested party. Nonetheless, the subject is ready to take some action to attain the intended aim, or to stop considering taking it up, and thus the mental process is controlled. No responsibility can be ascribed to the subject as he or she is considering to start actions commencing in the future. The action intended to be taken up by the participant can be reflected with a number of constructions, namely with a

deverbal nominal phrase followed by *o* ‘about’ in the locative case, as in (6a), a clause, as in (6b), or an infinitival phrase, as in (6c):

- (6)a. *Ostatnio myślał o rezygnacji z piłkarskiej kariery.*
 ‘He recently was thinking about giving up his football career.’
- b. *Myślałem, że się wybiorę dzisiaj do ciebie*
 ‘I thought that I would visit you today.’
- c. *Nie myśleli zmarnować państwowych pieniędzy.*
 ‘They didn’t intend to waste state revenue.’

Summing up, the lexical senses of the verb *myśleć* ‘think’ in Polish constitute a scale, where a subject moves from an experiencer- to agent-like position, as presented in Figure 1.



Figure 1: The experiencer-agent continuum.

The number of features that the participant possesses increases as the process resembles more a deliberate mental activity rather than a state. Most of the senses can be ascribed construction patterns, which has been shown in the examples above.

3. A corpus-based analysis of the senses of myśleć

Now that the senses of the verb *myśleć* ‘think’ have been identified, each being ascribed a number of agentive features, what we are left with is to determine whether correlations between the subject semantic features and the senses exist. For this purpose, a corpus-based analysis has been conducted. For the corpus sample to be large and representative enough of various types of language and register, the *PWN Corpus of Polish*, constituting a part of the Polish National Corpus, has been used. Its full version consists of 40 million words sampled from 386 books, 977 issues of 185 newspapers and magazines, 84 recorded (and transcribed) conversations, 207 websites as well as several hundred leaflets. It is balanced both in terms of genre and topic distribution. From the demo online

version of the corpus containing 7.5 million words, we have randomly selected nearly one thousand sentences with *myśleć* ‘think’ in considerable context.

Every occurrence of *myśleć* was analysed and annotated for a number of formal and semantic properties, the focus being on the verb’s argument structure, in which, as Divjak (2006) notes, “the main participants of events or situations are encoded”. Thus, formally verb’s complements were marked for clausal structure (ObjCaseNA/Clause), infinitival form (ObjCaseNA/INF) or nominal case (o+LOC, nad+INSTR, ACC, o+LOC/Clause, nad+INSTR/Clause),¹ whereas in semantic terms subject forms were annotated for features such as activity (SubjAC vs. SubjNA), volitionality (SubjV vs. SubjNV), control (SubjC vs. SubjNC) and responsibility (SubjR vs. SubjNR).²

A careful analysis of all the annotated features allowed us to apply the multiple correspondence analysis, in order to look at the visualisation of the correspondences between the subject semantic features and verb constructions representing the senses distinguished in Section 2. The correspondences are represented in a plot by means of relative distances (e.g. Glynn 2009).

The plot in Figure 2 shows three main associations of features. The upper right-hand corner grouping represents the verb clausal complement (ObjCaseNA/Clause) corresponding with an active (SubjAC) and a volitional subject (SubjV), which refers to sense (iii). The upper left-hand corner, on the other hand, presents a correlation between the *nad+INSTR* and *nad+INSTR/Clause* constructions and a controlling (SubjC) and responsible (SubjR) subject of sense (v). Finally, the cluster in the middle in the upper part of the plot associates infinitival constructions with active and controlling but non-responsible subjects of sense (iv).

The bottom right-hand corner portrays the lack of activity (SubjNA) and volition (SubjNV), constituting subject semantic features in sense (i), as being rather distant from the centrally located *o+LOC* and *o+LOC/Clause* constructions. The least transparent is the correlation representing sense (ii),

¹ In some sentences, the preposition was followed by both a case marked pronoun and a clause yet.’; there(e.g. o+LOC/Clause), as in *Myślę o tym, co jeszcze zrobię*. ‘I am thinking about what I will do were also occurrences of *myśleć* not followed by any complementation (ObjCaseNA/ObjFormNA, as in *Myślę całym sobą*. ‘I am thinking with my whole body.’).

² The lack of each feature has been provided as the second one in the parentheses.

since the lack of volition, control and responsibility as well as active participation come close to many constructions.

Such results suggest that active, volitional, controlling and responsible agents involved in the mental activity are more prevalent and prominent than passive and non-volitional experiencers who are hardly responsible for and in control of the mental state. The results also indirectly support the general cognitive assumption that syntactic structures are meaningful, rather than arbitrary and unpredictable as some correlations between semantic features of the subject role and grammatical constructions have been identified.

In order to see whether the correlations between the two variables are statistically significant, some confirmatory techniques, such as Logistic Regression Analysis, should be used. However, in our data the occurrence of some construction patterns was too low for the analysis to be carried out. This means that the next study should be carried out on a larger sample where a representative number of examples would appear for each construction.

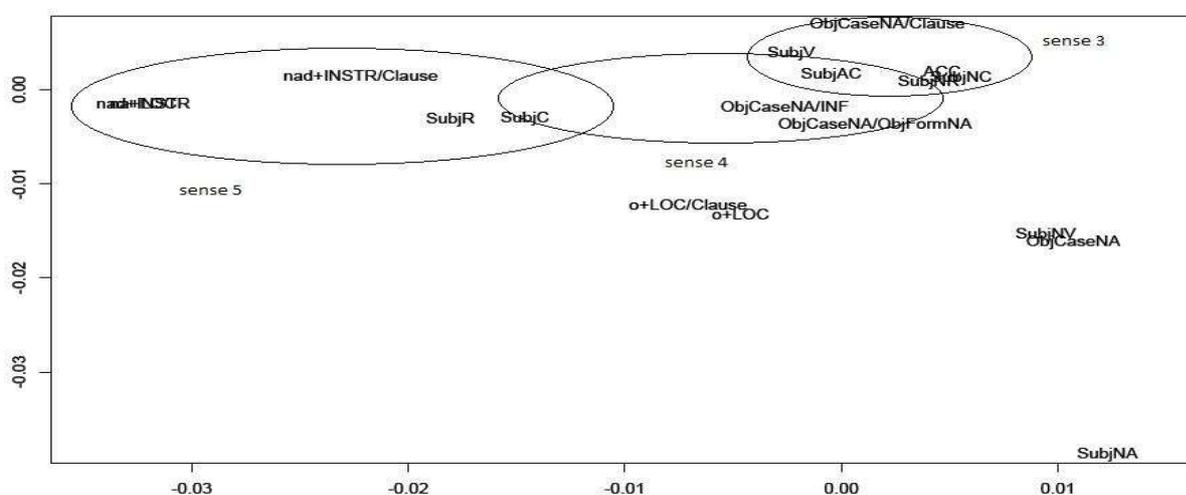


Figure 2: The correspondence between subject semantics and verb complement

4. Conclusion

In cognitive linguistics, so far a clear distinction has been made between agents and experiencers, the former referring to subject roles in energetic and the latter in absolute interactions. However, most linguists have assigned the same

features, such as activity, volition, control and responsibility to both types of performers.

Focusing only on one mental verb *myśleć* ‘think’ in Polish, we have identified five senses of the verb and tried to ascribe the four features to the participants in particular processes depicted by the verb senses. The sense selection was based on linguistic, psychological and philosophical sources, and then verified by a corpus-based statistical analysis.

The multiple correspondence analysis, by means of which we have tried to explore the correlation between the subject semantic features and verb complement structures representing particular senses has confirmed the existence of three senses, i.e. sense (iii), represented by *myśleć, że* ‘think that’; sense (iv), represented by *myśleć* + verb infinitive; and finally sense (v), represented by *myśleć nad* followed by a nominal phrase in the instrumental case, which in turn may be followed by an infinitival phrase. The subject of each sense denotes a participant whose involvement in the mental experience increases as the process resembles more an activity than a state. The prevalence of the former has been noted, and thus a tentative observation can be made that the mental process resembles more an activity than a passive experience.

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