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Articles

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The influence of rater empathy, age and experience on writing performance assessment

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Abstract

Assessment reliability is vital in language testing. We have studied the influence of empathy, age and experience on the assessment of the writing component in Estonian Language proficiency examinations at levels A2–C1, and the effect of the rater properties on rater performance at different language levels. The study included 5,270 examination papers, each assessed by two raters. Raters were aged 34–73 and had a rating experience of 3–15 years. The empathy level (EQ) of all 26 A2–C1 raters had previously been measured by Baron-Cohen and Wheelwright's self-report questionnaire. The results of the correlation analysis indicated that in case of regular training (and with three or more years of experience), the rater's level of empathy, age and experience did not have a significant effect on the score.

Keywords: rater effects, rater reliability, empathy, L2 writing, assessment

The Estonian language proficiency examinations are high-stakes tests. Success in these tests provides an opportunity to apply for Estonian citizenship and enhances competitiveness in the labour market as the language proficiency examinations are to be passed for proving the level of language proficiency required for employment in certain positions (see Language Act, 2011). The state conducts language proficiency examinations at levels A2–C1. Level B1 is necessary for the application for citizenship. Language proficiency tests are standardised tests which include the four skills: reading and listening comprehension, writing and speaking. The latter two are assessed subjectively. Oral performances are assessed in two ways – locally (at the time of the examination) and centrally (from the recording). Written performances are assessed

centrally (preceded by a standardisation session for all the qualified raters). Raters use holistic rating scales which rely on the criteria of the specific language proficiency levels.

Every performance is assessed by two individual raters. If the difference between the scores given by the two raters is larger than that allowed, the performances will be assessed by a third rater, who decides the final result. Rater training is organised periodically: the persons conducting the oral part of the examination together with the raters for the oral part undergo training at least once a year. Sessions for standardising the assessment are organised for the raters for the writing part (four times a year). Raters receive regular annual feedback (every rater's average score is compared to the average annual score and the average score for every examination session based on the separate levels).

The decision as to whether the performance of the examinee corresponds to a certain level is made by the rater, taking into consideration the requirements for the performance of the task and relying on the rating scales, level specifications and experience (see Common European framework of reference for languages [CEFR], 2001). In subjective assessment, the consistency of the rater plays an important role, with reliability being the most important indicator of consistency. When assessing in pairs, raters need to be consistent in order to be reliable, that is, the scores given by different raters for the same performance coincide or differ only minimally (inter-rater reliability) (e.g., Alderson, Clapham, & Wall, 1996; Luoma, 2004; Weir, 2005).

Giving a score is the most difficult part of the assessment procedure. The variability of a rater in the assessment process and their inconsistency depends on several factors and is revealed in different forms (see Bachman & Palmer, 1996; McNamara, 1996; Weigle, 2002). Irrespective of similar training and the standardisation sessions, the raters may concentrate on different aspects which may be deeply intuitive and difficult to formulate (Lim, 2009; Lumley, 2005).

Lumley (2002, 2005) has carried out extensive studies on raters. He has attempted to systematise the similarities and differences in rating behaviour, outlining the general patterns of behaviour. Mei (2010) has studied the range of rater behaviour and idiosyncratic rater practices in using rating scales and showed that there can be differences in the interpretation of the scales. It has also been found that raters use different reading styles, whereby each style characterises the concentration skills of the rater and their ability to process relevant information (Sakyi, 2000). The expectations and prejudices of the rater also play an important role in the assessment process (Ang-Aw & Meng Goh, 2011).

The personal factors of raters are the main focus of research in order to identify the factors influencing the assessment process. Variables such as gender, native language, professional background and experience are the indicators that mainly attract the interest of the researchers. It is believed that experience has a substantial effect on the assessment procedure. However, the results have been contradictory. For instance, Shi, Wang, and Wen (2003) have found that highly experienced raters give lower scores than those with little experience. The results of Leckie and Baird (2011) indicated that raters with less experience appeared to be more severe than raters with more experience. Previous studies (Weigle, 1998, 1999) have also indicated that inexperienced raters are more severe and more inconsistent. Training helps to reduce the differences in the severity of raters but it does not eliminate the differences (Fahim & Bijani, 2011).

Attali (2016) has studied whether and to what extent the performance of the raters who had undergone only the basic training differed from that of the experienced raters. The results indicated that there were no significant differences in the rater performance of inexperienced and experienced raters. Attali concludes that it is the training prior to the assessment that has more of an effect on rater performance than long-term experience as a rater (provided that the novice rater has all the necessary skills). The results of Lim (2009) are relatively similar, indicating that novice raters learn fast enough to lose their initial severity. Feedback and the exchange of experiences with other raters play an important role here.

However, Chalhoub-Deville (1995), who studied the bias factors such as rater educational and professional experience, compared three rater groups with different backgrounds and found that different groups prioritise different aspects in the assessment procedure and interpret rating scales differently. The latter is also supported by a study by Matsumoto and Kumamoto (n.d.) on rater related variables in the evaluation of L2 writing, where it is indicated that nationality, rater training type, rater experience and attitudes influence the assessment procedure. Chuang (2010) has also studied similar variables and found that the academic background of raters is the most influential variable on the raters, since the performance of raters with the linguistic or language testing background was reasoned and more reliable.

The experience and age of the rater may not be related to each other. There may be older raters with less experience and younger raters with years of experience. Although the effect of experience on the score has been studied, there is no explicit knowledge on how the age of the rater influences the score. In his studies, Eckes (2008) covered the different aspects of how experienced raters at different ages assessed a written essay, and found that older raters paid less attention to syntax and were more severe when assessing fluency. Even if the differences in the assessment of separate aspects do not influence the final score, there may be issues related to the individual features of the rater that may have an effect on the validity of the assessment. Considering the rater effect in the assessment procedure becomes more and more important. Psychological studies on kindness have indicated that younger people (under 40 years) are significantly more unkind than older people (over 40 years) (Canter, Youngs, & Yaneva, 2017), and age difference may also have an impact on the assessment procedure.

The effect of other human factors and personality traits on assessment has also been studied. For instance, many researchers have assumed that fatigue may affect rater performance and have shown that rating fatigue may be one of the factors to affect the assessment (Ling, Mollaun, & Xi, 2014). Also, rater leniency and severity have been associated with personality traits, however, no significant evidence has been found (Dewberry, Davies-Muir, & Newell, 2013).

Empathy is the ability to understand others' thoughts and feelings and appropriately or isomorphically respond to them (Allison, Baron-Cohen, Wheelwright, Stone, & Muncer, 2011; Baron-Cohen & Wheelwright, 2004; Walter, 2012). In the examination situation, the rater's empathy may also prove important. To our knowledge, no studies have been carried out to investigate the impact of the empathy of the rater on the assessment of written work. A pilot study of the effect of empathy on the assessment of oral performance has indicated that empathic subjects were empathising with the speaker and this distorted their affective ability to

rate language (McNamara, 2000). For written works, it might be expected that empathic raters could put themselves more easily in the role of the examinee and thus assess more leniently.

The effect of human factors depends on the assessment situation and therefore it is essential to find out the factors that have an impact on the particular group of raters that are of interest. If the raters are aware of the possible effect of their (personality) traits on the assessment procedure, it directs them to control their rating behaviour (Weigle, 1994). Rater training is essential for achieving reliable rating performance. This can help to minimise the bias which derives from the differences in the experiences of raters (Alderson, Clapham, & Wall, 1996).

In this study, we have posed the following research questions:

1) Do the rater's age and rating experience have an effect on rater performance?
2) Does the empathy level of the rater have an effect on rater performance?
3) Do the rater properties (empathy level, age, experience) have a different effect on rater performance when rating examination papers written at different language proficiency levels (A2–C1)?

Method

Participants

The study included all 26 raters of the Estonian language proficiency examinations (A2–C1), 25 female and 1 male subjects, aged 34–73, and with a rating experience of 3–15 years. All the raters were philologists, who were trained to assess the language proficiency examinations but they had different work experiences and they had different occupations.

In order to assess the empathy level of the raters, we used the Baron-Cohen and Wheelwright's (2004) self-assessment questionnaire Empathy Quotient (EQ), which was translated into Estonian (cf. Altrov, H. Pajupuu, & J. Pajupuu, 2013). This questionnaire is regarded as a reliable and valid test for measuring the empathy of an individual both for clinical and non-clinical purposes (Allison et al., 2011; Muncer & Ling, 2006). The EQ consists of 60 questions, 40 of which measure empathy and 20 are filler items added to prevent the participant from focusing solely on empathy. There are four possible answers to every question: "definitely agree", "slightly agree", "slightly disagree" and "definitely disagree". About half of the questions require an empathic person to agree with the statement and half of them to disagree with the statement. The persons to be tested get 0 points for filler items and 1 or 2 points for the answers given to the empathy questions, depending on the intensity of the answer. The maximum number of points is 80. The higher the score, the more empathetic a person is. In the control test, the average score for women was 47.2 (SD 10.2) and for men 41.8 (SD 11.2). A very empathetic person is one who receives more than 62 points, the score for a person with very low empathy level is below 20 (Baron-Cohen & Wheelwright, 2004).

The empathic ability (EQ) of the raters participating in our study was between 38–63. See Table 1.

Table 1: *Characteristics of the participants*

Raters	Min	Q1	Median	Q3	Max
age	34	42	51	59	73
experience (in years)	3	5	13	13	15
EQ	38	42	50	56	63

Material and procedure

The material consisted of the scores for the second task of the writing part of the language proficiency examinations of levels A2–C1 of the year 2014. A total of 5,270 writing tasks were assessed in pairs in those examinations:

A2 – 1,164 papers
B1 – 1,908 papers
B2 – 1,178 papers
C1 – 1,020 papers

At level A2, the task of the examinee was to write an approximately 30-word story. The factors to be assessed were task completion (content relevance, text length) and language use (vocabulary, word use, grammar). The maximum score for the task was 6 points.

At level B1, the task was to write a 100-word descriptive text. The factors to be assessed were the task completion (compliance of the content to the task) and language use (vocabulary, grammar and spelling). The maximum score for the task was 12 points.

At level B2, the task was to write an approximately 180-word discursive text. The factors to be assessed were task completion (compliance of the text to the task and relevance of information), compositional organisation (consistency, coherence, length) and language use (extent of vocabulary and precision of use; grammar, spelling, style). The maximum score for the task was 12 points.

At level C1, the task was to write an up to 260-word article based on source data. The raters had to assess three aspects: task completion (compliance of the text to the task; topic development), compositional organisation (consistency of the structure, internal coherence of the text; text layout and length) and language use (vocabulary range and precision of use; grammar; spelling, style). The maximum score for the task was 12 points.

We used Pearson's correlation to estimate the relation between the scores of the raters and the properties (age, experience and level of empathy) of the raters (see Stemler & Tsai, 2008). We investigated the effect of the properties of rater pairs (R1 and R2) on the difference of the given scores. Based on the properties of the raters, we attempted to use linear regression to estimate the difference between the scores of the raters. In our calculations, we used the R Project for Statistical Computing (A language and environment for statistical computing [R Core Team], 2016).

Results

In order to investigate the relation between the properties of the raters and the scores, we calculated the correlations between them (see Figure 1).

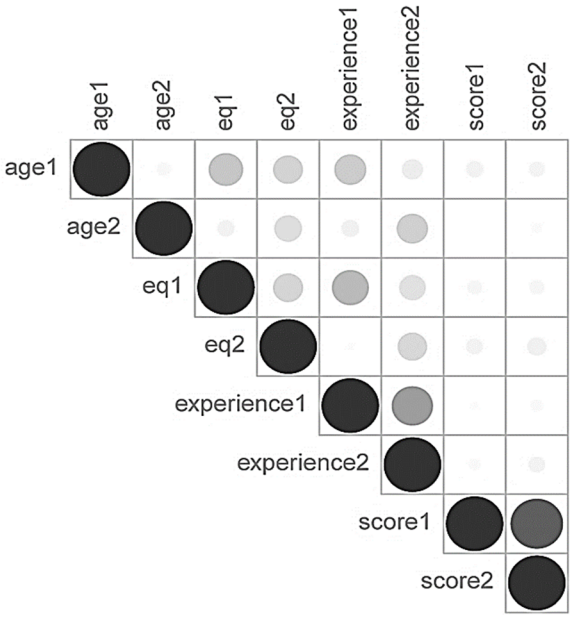

Figure 1: *Correlation matrix. The properties of both raters of the rater pair (R1 and R2) and the scores given by them have been correlated. The size of the circles indicates the strength of the correlation*

As can be seen from the two last columns of Figure 1, there was no significant correlation between scores and rater properties – empathy, age, experience. The results only indicated a strong relationship between the scores of a rater pair (r =.83, p < .001). Also, there was no correlation between the rater properties and the scores at different levels, only the scores of the rater pairs correlated: at level A2 r =.87, p < .001, at level B1 r = .80 p < .001, at level B2 r = .84 p < .001, at level C1 r = .80, p < .001. The consistency of the scores of rater pairs is also highly visible in the descriptive statistics (see Table 2).

Table 2: *Rater pair score difference (score1–score2) mean and standard deviation by levels*

Level	Mean	SD
A2	.02	1.09
B1	.06	2.10
B2	-.06	1.73
C1	-.02	1.49

Note. The negative mean value for language levels B2 and C1 indicates that the second rater (R2) of the rater pair gives slightly higher scores than the first rater (R1). The difference is insignificant.

The missing dependencies between the rater properties and the scores are also indicated in Figures 2, 3 and 4.

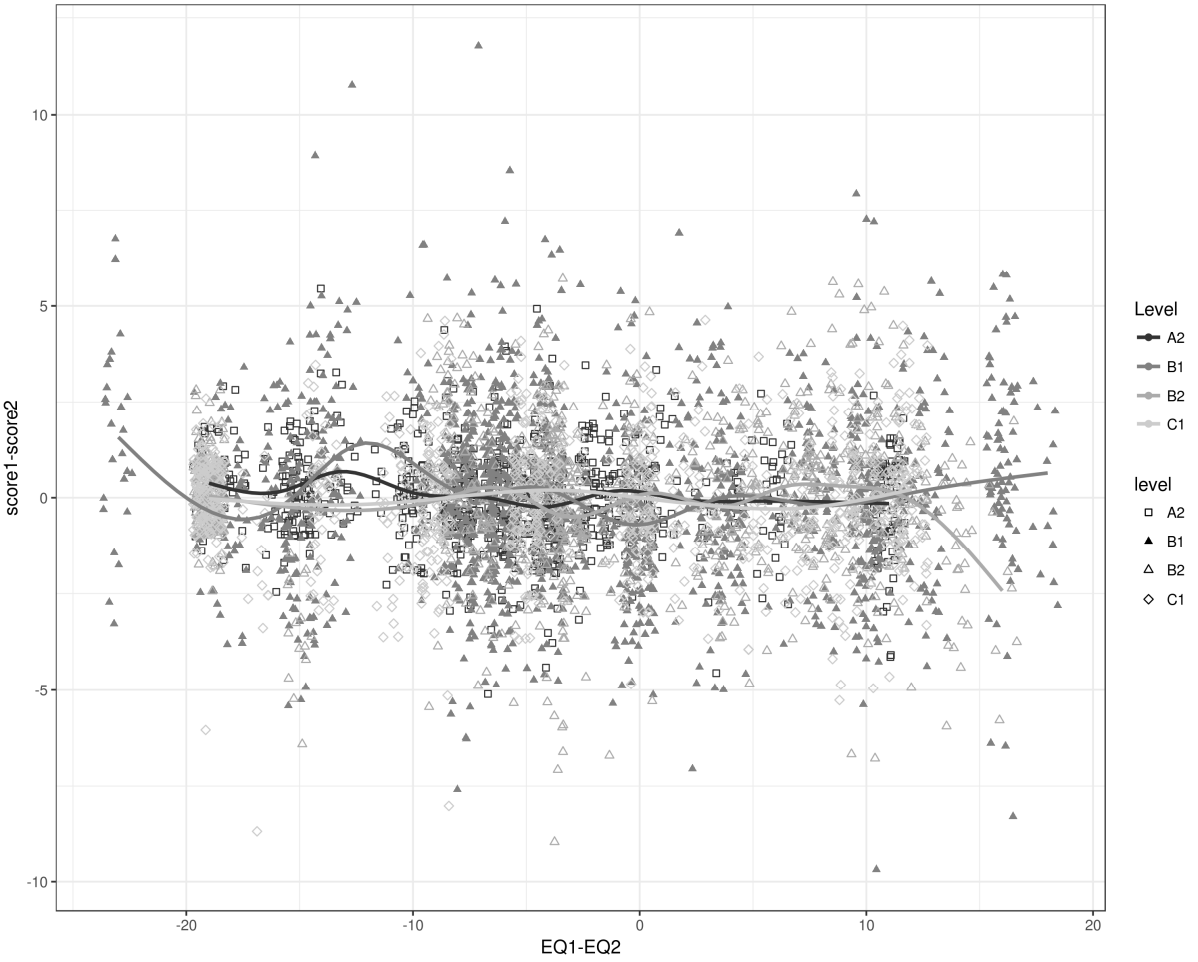

Figure 2: *The influence of raters' empathy difference on the score difference. Data for level A2 is marked with squares, data for level B1 with filled triangles, level B2 with empty triangles and level C1 with rhombi. The mean score difference is close to zero for all levels*

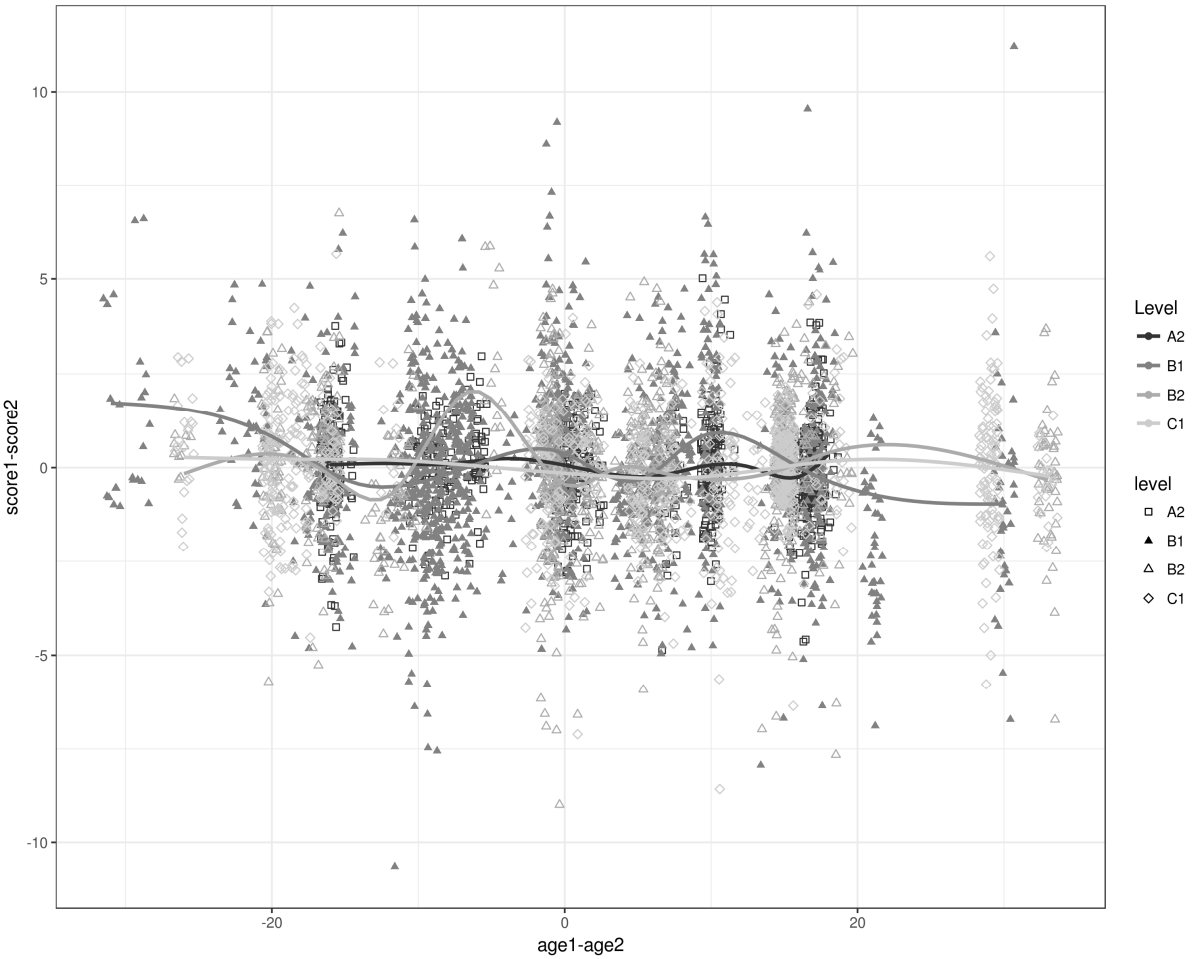

Figure 3: *The influence of raters' age difference on score difference. Data for level A2 is marked with squares, data for level B1 with filled triangles, level B2 with empty triangles and level C1 with rhombi. The mean score difference is close to zero for all levels*

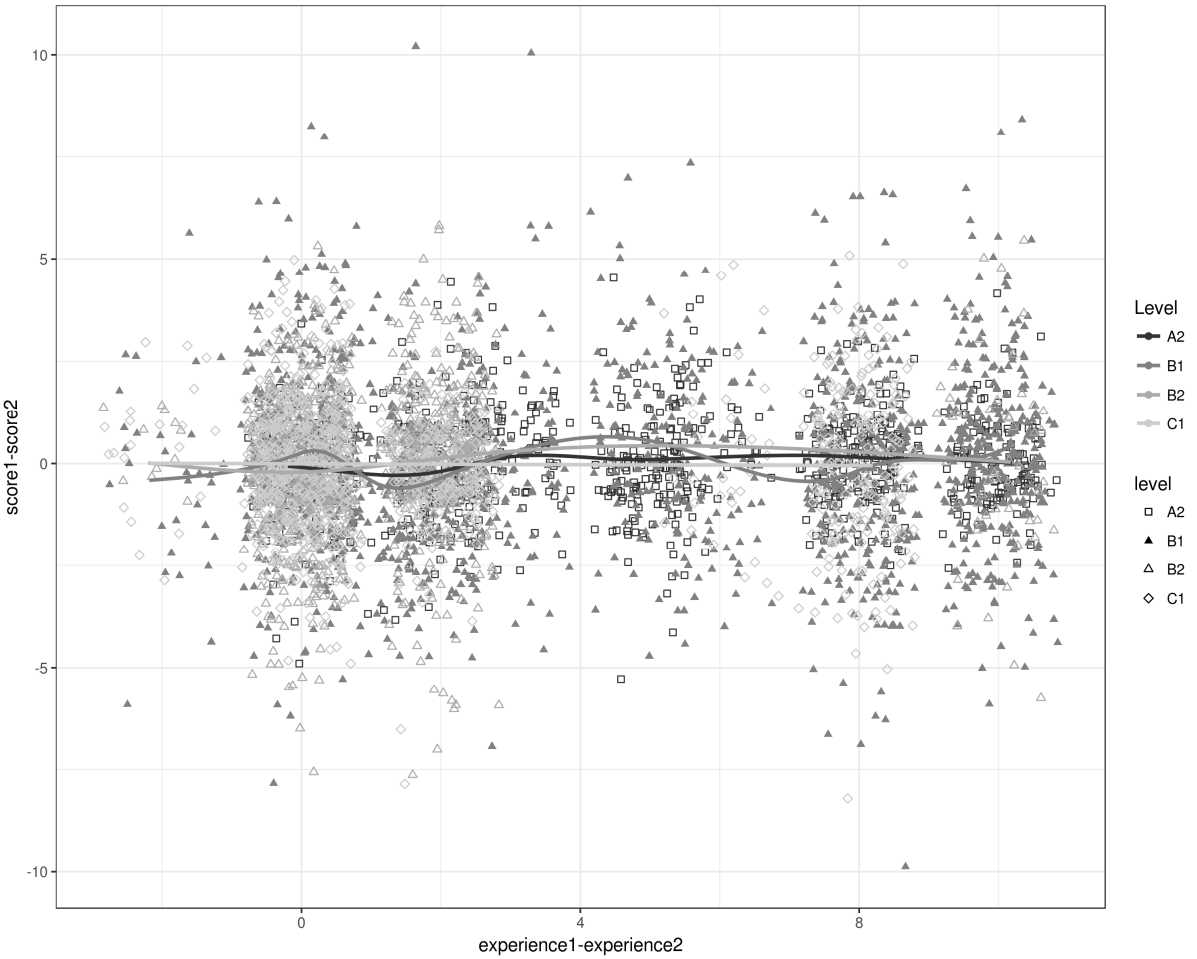

Figure 4. *The influence of raters' experience difference on score difference. Data for level A2 is marked with squares, data for level B1 with filled triangles, level B2 with empty triangles and level C1 with rhombi. The mean score difference is close to zero for all levels*

Figures 2–4 indicate the differences between the R1 and R2 scores of all 5,270 examination papers and the differences between the R1 and R2 empathy levels (see Figure 2), ages (see Figure 3) and experiences (see Figure 4). The score difference is close to zero for all levels. Single outliers (especially at level B1) are caused by the fact that one rater has considered the paper not ratable (and scored it with zero) and the other rater has assessed it. This is probably due to the different interpretation of the rating scale by the pair of raters. The rating scale leaves the option not to assess the paper, if rater finds that the writing is not connected with the topic of the task. Among all the studied examination papers, there were 500 papers which had been assessed with a zero by one of the raters from the pair.

We used linear regression to attempt to calculate the difference in the scores of the raters based on the properties of the raters. We achieved the best result by using the following formula:

lm(formula = I(score1 – score2) ~ I(experience1 – experience2) + I(age1 – age2) + I(eq1 – eq2), data = dd)
gives a model with multiple R-squared: 0.006166

However, the model's capability to predict is still only ~1%. Therefore, the results of the trained raters did not depend on rater properties such as age, rating experience and level of empathy.

Discussion

The aim of the study was to establish how the holistic assessment of the writing part of the language proficiency examinations is influenced by the age, rating experience and empathy level of the rater. We assumed that there would be differences in the severity of assessment between older and younger raters, since recent psychological studies have revealed that younger people are less kind (see Canter et al., 2017). Former studies on the relative importance of the age of the rater in the assessment process have hinted that older and younger raters may focus on different aspects of writing (Eckes, 2008). The results of our study did not confirm a significant effect of age on the scores given by raters. Even when investigating the assessment of the writing part of the examination papers of different levels separately, the effect of the age of the rater on the score was not observed (see Figure 1 and Figure 3).

Studies which have investigated the effect of experience on the score have given different results. The assumption that the experience of the rater influences the severity or leniency of the rater is not always valid (cf. Shi et al., 2003; Leckie & Baird, 2011). The results of our study also indicated that experience has no significant effect on rater performance, and the result was similar at all levels (A2–C1) (see Figure 1 and Figure 4). This supports the conclusion of Attali (2016) that it is rather the rater training than the long-term experience as a rater that influences rater performance. Hence, regular rater training which also includes discussion and agreement on assessing borderline examination papers helps to standardise the understanding of the assessment principles and increases the reliability of assessment. Consequently, the rating scales were sufficiently clear and unambiguous as there were no significant differences between the scores given by both raters (see Figure 1 for correlation between score1 and score2). Differences in rater performances occurred, if one of the raters of the rater pair decided to assess the paper but the other one did not, since according to the assessment criteria, a rater does not have to assess a paper which is not related to the topic.

When studying the impact of the empathy of the rater on the score, we assumed that empathic raters can put themselves in the role of the examinee and thus assess more leniently. However, our study indicated that the empathy level of the raters had no significant effect on the score (see Figure 1 and Figure 2). The EQ of the raters was between 38–63, which means that there were people with an average and a very high level of empathy among the raters and there were no raters with a low level of empathy (see Table 1). Therefore, the result is valid for raters with an average or a high level of empathy.

The results indicated that the level of empathy, age and experience do not play a significant role in the assessment procedure and do not affect rater performance at different levels, provided that the raters are trained (inter-rater reliability over .80). The shortest rater experience was three years, which seems to be sufficient to make assessments that are on a par of experienced raters. There were no raters with very little experience (less than 3 years) or with little training, therefore, it is not known what the results would have been for such raters.

The limitation of the present study is that we only focused on the analysis of the writing part of the examination. The study should also be extended to the other subjectively assessed part of the examination: to apply the same method for analysing the rater pairs for the speaking part of the language proficiency examinations (A2, B1, B2, C1) in order to identify whether the impact of empathy, experience and age of the raters on the assessment procedure is significant or not. It should also be clarified, taking into account the similarities/differences in rater performances, if the raters communicate directly with the examinee and assess them on site or if the examinee is assessed centrally based on a video or audio recording. Other variables depending on the differences of the assessment situation can also be added. It is also important to stress that the results of the present study can mostly be generalized to female raters as there was only one male among the 27 raters. The study included the raters with a rating experience of 3–15 years, so there is no comparison with raters with no experience.

Conclusion

Our analysis showed that, for trained raters, the empathy, age and experience of the rater did not play a significant role in assessing writing performance (inter-rater reliability $r > .80$). This probably results from routine training and common understanding of the rating scale. Raters with three years of experience showed the same degree of reliability in their ratings as more experienced raters.

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'TAM' in English constructions vs. Polish renditions – Selected transference pitfalls

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Abstract

This paper argues that a cognitive, constructional, view of the English categories of tense, aspect, and mood ('TAM') influences comprehension resulting in a more accurate grammatical performance by Polish users of English. Five English constructions considered to be transference pitfalls for Polish users are highlighted through juxtaposing original examples from *The Hobbit* by Tolkien (1937/1978) with three Polish renditions. The pitfalls addressed in this paper concern absence of equivalent Polish constructions to English expressions in the perfect aspect, the progressive aspect and to English constructions which 'lexicalize', i.e. convey with words, a compilation of the perfect and the progressive aspects. The Polish versions of the examples analysed and discussed in the present paper demonstrate a variety of means in which Polish grammar is used to handle the disparities between the English and Polish versions. The objective of the paper is to apply a cognitive interpretation to the aforementioned English constructions.

Keywords: tense, aspect, modality, English, Polish

Introduction

The present discourse has a descriptive character concentrating on the importance of considering semantic construals of language users in depicting different situations by means of grammatical constructions of increasing degrees of specificity and complexity. The following focuses on selected features of verbal categories of TAM in English clauses and draws attention to those constructions which are presented as topical 'pitfalls' for Polish learners of English grammar. Drawing attention to a cognitive instruction of English grammar to Polish learners, especially with regard to TAM constructions (Givón, 2001, p. 285; Croft, 2013, p. 228), could diminish topical transference mistakes in English argument structures. Croft (2013) argues that such constructions combine in an utterance, since "argument structure constructions structure the propositionalized subchunk, while TAM constructions particularize the event" (p. 229). Moreover, in Croft's study, subchunks are "«clause-sized» experiences" (p. 229). Croft accounts for subchunking stating that it is about breaking up the speaker's experience "into smaller units

of the same type" (p. 229), which pertain to encoding information in clauses. The subchunks analyzed and discussed in the present discourse are illustrated by English TAM constructions juxtaposed with three Polish translations drawn from examples cited in *The Hobbit* by Tolkien (1937/1978). The signalled constructions could be said to be transference 'pitfalls' for Polish users of English. The final Part illustrates the signalled transference pitfalls through examples of translations of English clauses into Polish, analyses of the disparities observed, and synthetic comments. According to this author, it is essential that grammar, in this case, the predicator and its argument structure, be studied as grammatical constructions (e.g. Langacker, 1987; Lakoff, 1987; Goldberg, 1995), 'bits' and 'chunks' of language of increasing degrees of complexity, in view of the proponents of Cognitive Linguistics (capitalized CL, see Geeraerts, 2006). Moreover, it is argued here that instruction of English TAM constructions should trigger underlying 'construals' of the speakers' utterances (Jackendoff, 1983; Langacker, 1991; Talmy, 2000a, b). The TAM constructions addressed as transference pitfalls in this discourse delve into:

1. sequentiality and 'prior' situations
2. situations conveyed by the *to have done* construction
3. the perfect of selected central modal verbs
4. imperfective present situations: progressive vs. non-progressive
5. perfective and imperfective past situations

Speakers' Construals and Grammatical Constructions

In Langacker's Cognitive Grammar (1987), grammatical constructions are "based on conventional imagery, which reflects our ability to construe a conceived situation in alternate ways" (p. 138). Jackendoff (1983) addresses another constraint, apart from the *grammatical constraint*, which he considers "not sufficient for constructing an argument from grammatical generalization to the nature of thought" (p. 16). He calls the other constraint the *Cognitive Constraint*. Jackendoff (1983) acknowledges that there "must be levels of mental representation at which information conveyed by language is compatible with information from other peripheral systems such as vision, nonverbal audition, smell, kinesthesia, and so forth" (p. 16). Consequently, cognitive scholars argue that the conceptual structure is embodied and semantic structure is conceptual structure (Lakoff & Johnson, 1980, 1999; Lakoff, 1987; Johnson, 1987; Talmy, 2000a). Thus, semantic structure reflects the speaker's alternate construals, which are linked to specific ways of viewing and conceiving the same situation (Langacker, 1987, p. 38; see also the schematic systems of structuring the semantic content in Talmy, 2000a).

Langacker (2008) argues that "Expressions can have the same content, and profile the same relationship, but differ in meaning because they make different choices of trajector and landmark" (p. 72). The two entities are defined in terms of primary and secondary focal prominence, for example, in *The lamp is above the table*, the lamp fills the trajector, but in *The table is below the lamp*, the lamp has landmark status (c.f. Langacker, 2008, p. 73). The two utterances display different perspectives of viewing the same situation. Perspective, therefore, according to Langacker (2008), "is the **viewing arrangement**, the most obvious aspect of which is the vantage point assumed" (p. 73), which is observed on the basis of how we perceive the

lamp in the first clause and the table in the second one. Cognitive linguists' studies found that semantics "is based on speakers' «construals» of situations, not on objective truth conditions" (Goldberg, 2013, p. 16). Therefore, grammatical constructions, ranging from single words to whole sentences, reflect the speaker's construals of the described situations (Talmy, 1978; Jackendoff, 1983; Lakoff, 1987; Langacker, 1987; Goldberg, 1995, 2006; Birner & Ward, 1998). Grammatical constructions are inseparable from construals of situations, which incorporate combinations of form and meaning at various levels of complexity, where semantics and pragmatics are interrelated. Cognitive semantics and selected ideas that pertain to functional views on language combine in the analysis and discussion of TAM constructions presented in the following sections.

Selected Features of Verbal Categories of TAM in English

Tense

Givón (2001) perceives tense as a pragmatic phenomenon, stating that "*tense* involves the systematic coding of the relation between two points along the ordered linear dimension of *time*: ● reference-time; ● event-time" (pp. 285–286). Givón (2001) also argues that "The unmarked («default») temporal reference point vis-a-vis which event/state[1] clauses are anchored is the *time of speech*. Temporal anchoring to this default reference point is called *absolute tense*" (p. 285). Givón distinguished three major tense divisions in English, *past*, *future*, and *present*, adding a fourth division, referred to as 'murky'. The fourth distinction relates to *habitual* events or states, and habitual expressions. In Givón's opinion, they "are not about any particular event, thus not about any particular event-time" (p. 286). According to Givón, the habitual can be treated as "a sub-category of the *imperfective* aspect, whereby, like other imperfectives, it can intersect with various tenses ..." (p. 286). Unlike syntax grammar, which distinguishes two tenses of the English verb, 'present' and 'past' (c.f. Quirk, Greenbaum, Leech, & Svartik, 1985/2007, p. 175), Givón's functional approach to syntax proposes four tenses altogether, illustrated by the following examples (c.f. p. 286):

1. *He watched the boat*. **Past**, describing an event or state prior to the time of speech;
2. *He will watch the boat*. **Future**, about an event or state coming after the time of speech;
3. *He is watching the boat*. **Present**, referring to an event or state at the time of speech;
4. *He always watches boats*. **Habitual**, concerning a state or a repeated event with unspecified 'event-time', therefore treated as 'murky'.

The four pragmatic tense divisions rely on 'speech-time', 'event-time', and a specific tense temporal anchoring of the 'proposition', such as in 1, through 4 above. Absolute tense applies

[1] For the two terms *event* and *state*, I adapt the terms *action* and *process*, respectively. Talmy (2000b) applies the term *action* to "a static condition – the continuation of a location or state – as well as to motion or change" (p. 67). Langacker (1987) claims that "Any verb (...) designates a **process**, defined as a sequence of configurations (or states) conceived as being distributed over a continuous series of points in time" (pp. 143–144).

to the reference time which is the present time and, simultaneously, the speech time. While the past time precedes the speech-time in the present time, the future time follows it.

Moreover, Givón (2001) argued that, apart from absolute tense divisions, a language can take 'present', 'past', and 'future', "and anchor them to a temporal reference-point preceding (past) or following (future) the time of speech. This is called *relative tense*, a phenomenon more conspicuous in English aspects..." (pp. 286–287). Givón's statement complies with Comrie's (1976/1991) approach, who described tense as 'deictic', since, it "locates the time of a situation relative to the situation of the utterance" (p. 2). While tense is external to the verb phrase, aspect is internal (c.f. Comrie, 1976/1991, p. 6).

Aspect

Croft (2012) argued that "Aspect is manifested both grammatically and lexically" (p. 31). Talmy (2000b) characterized aspect "as the «pattern of distribution of action through time»" (p. 67). Comrie (1976/1991) proposed a definition of aspect, based on the observation formulated in the middle of the twentieth century by Holt (1943): "Aspect is not concerned with relating the time of the situation to any other time-point, but rather with the internal temporal constituency of the one situation; one could state the difference as one between situation-internal time (aspect) and situation-external time (tense)" (p. 6). Said definition, which refers not only to grammaticalized viewpoints, but also to the structure of the depicted situation, pertains to grammatical and semantic/pragmatic analyses of aspect alike (Vendler, 1957/1967; Comrie, 1976; Dowty, 1977, 1979; Verkuyl, 1993; Smith, 1997; Trask, 1999; Croft, 2012, 2013). Vendler (1957) showed that the verb and its arguments grammaticalize a specific situation type in a particular language, assuming that the verb and its 'constellation' represent a stable and exceptional set of linguistic properties. Hence the given situation types expressed by clauses are conveyed by verbs and their arguments, which form its constellation. It evokes a specific temporal schema, which is connected with the particular verb (p. 143). Vendler acknowledged that the said temporal schemata are manifested as crucial components of notions, consistently expressed via language. He divided the temporal schemata in agreement with four types of verbs:

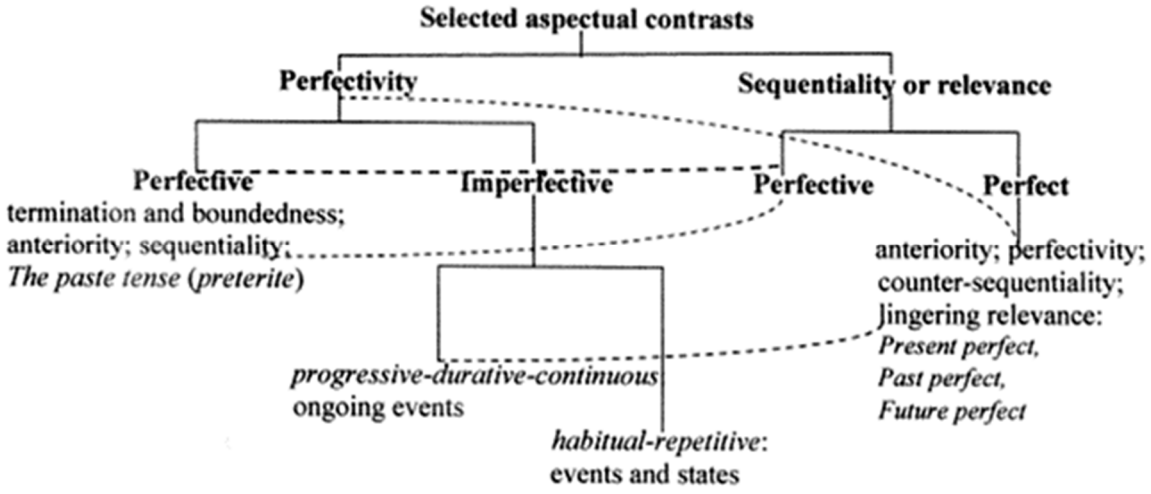
1. the *running* type or *pushing a cart*, comprises **activity** terms;
2. the *running a mile* type, or *drawing a circle*, includes **accomplishment** terms;
3. the *reaching the top* type correlates with **achievement** terms;
4. the *loving* type includes **state** terms.

Aspect was thus presented as '**aktionsart**', i.e. lexical or interior aspect (e.g. Vendler, 1957; Dowty 1979). Smith (1997, p. 3) developed Vendler's (1957) semantic aspectual situation types by adding '**semelfactives**' to the four types of verbs listed above. The label 'semelfactive' situation types applies to momentary events, such as conveyed by *to tap* or *to knock*. Croft (2012, pp. 36–39) pointed out momentary states, named 'point states', for example, lexicalized by the clauses *It is six o'clock* and *The sun is at its zenith* (Mittwoch, 1988, p. 234). The model of situation types has been developed further into increasingly more detailed interpretations, for

example, by Dowty, (1977, 1979) Trask, (1999) and Croft, (2012, 2013). As a result, lexical aspect, called 'aspectuality', was associated with the whole clause (Verkuyl, 1993), to facilitate understanding situational and temporal relations in the entire discourse.

Hence apart from aspectual situation types, Smith (1997) proposed aspectual viewpoint types, which correspond to familiar grammatical aspects. Givón (2001, pp. 287–300) demonstrated three main grammatical aspectual contrasts from a pragmatic perspective: *perfectivity*, comprising **perfective** vs. **imperfective**, *sequentiality* or *relevance*, involving **perfective** vs. **perfect**, and *immediacy*, concerning **remote** vs. **vivid** aspects. The last contrast listed is not a subject of analysis in this discourse. Attention falls on the contrasts displayed in Table 1 (c.f. Chłopek, in print).

Table 1: *Classification of Givón's aspectual contrasts concerning* perfectivity *and* sequentiality or relevance *(inspired by Comrie's diagram, 1991, p. 25)*



Givón (2001) admitted that the perfect is a "functionally most subtle grammatical aspect" (p. 293). Polish sentences do not convey the perfect aspect exposed in Givón's approach to the distinction between perfective and perfect. Nor do they contrast between habitual-repetitive and progressive-durative-continuous situations, having a 'general imperfective form' for both in Polish (Smith, 1997, p. 74, in relation to Russian). Table 2 adapts the summary of "similarities and differences between the perfective (past) and perfect" from Givón's study (2001, p. 277, point 33). The past tense has 'preterit' verbs, the perfect aspect makes use of the auxiliary *have*.

Table 2: *Perfective (past) vs Perfect (based on Givón, 2001, p. 297, point 33)*

Feature	Past	Perfect
anteriority	YES	YES
absolute reference	YES	NO
perfectivity	YES	YES
termination	YES	YES / NO
lingering relevance	NO	YES
sequentiality	YES	NO

Mood – epistemic modal verbs in English

This point addresses perfectivity with reference to selected English central modal verbs, with epistemic senses, without parallel perfective constructions in Polish renditions. Langacker analyzed English central modals as **root** (or **deontic**) modals and **epistemic** modals from the perspective of Cognitive Grammar (1991, pp. 269–275). Root modals, according to Langacker (2008, p. 306), exert their 'potency' to effect a specific process. Langacker argued that "the epistemic senses of the modals pertain to knowledge (...) the modal force reflects the speaker's efforts in assessing its likelihood" (p. 306). Moreover, the speaker has a conception of reality (R_C), which absorbs the potency of the modal force. Finally, Langacker claimed that the 'envisaged process' portrays "the speaker's force-dynamic experience in mentally extrapolating the current reality conception – in such a way that R_C comes to include it" (p. 306). Comparing the control held by root modals, on the one hand, and epistemic modals, on the other, the former are associated with "**effective control** of occurrences" and the latter with "**epistemic control**" (p. 306). Langacker (2008, pp. 307–308) distinguished 'immediate' (*may*, *can*, *will*, *shall*, *must*) and 'non-immediate' (*might*, *could*, *would*, *should*) epistemic modals, out of which only *may*, *can*, and *might* are used in the examples studied in the analytical Part.

TAM – Examples of the Signalled Transference Pitfalls

English TAM constructions exhibit contrasts with their Polish versions, which could pose 'pitfalls' for Polish users of English. The present part concentrates on selected features related to the verbal categories of TAM in English utterances. The examples used in the present part are cited from *The Hobbit*, presented as (version a). They are juxtaposed with Polish equivalents, from renditions by Skibniewska (1997, version b), Braiter (2012, version c), and Polkowski (2012, version d). Version 'a' is shown in points 'a', version 'b' in points 'b', and so on. The elements which are significant for the analysis are highlighted in bold print, which is not used in the source books. In the five following sub-parts, the functions of TAM conveyed by the English versions are highlighted that way and contrasted with corresponding elements in the three renditions into Polish.

Sequentiality vs. Lingering Relevance

The versions of (1a), and (2a), relate to **sequentiality**, which entails the other four features of the preterit: anteriority, absolute reference, perfectivity, and termination. The event-time precedes the speech-time, which is the present situation, termed absolute reference. The following four examples display the feature of **lingering relevance**, that is '**default**' relevance, anteriority, perfectivity, and termination in relation to events, in situations prior to the reference time. Quotations (3a), (4a), and (5a) contain constructions in the perfect aspect, which communicate actions whose event time is prior to the reference time. Quotation (6a) expresses an ongoing event with the feature of lingering relevance, which determines the occurrence of the progressive aspect (see also Table 1).

Example (1a) contains a sequence of three different preterit verbs. The root verb *shot* has its landmark that is realized by *into the air*, which completes the action expressed by *shot*. The phrasal verbs *turned over* and *crashed down* convey termination of the depicted actions with the verbal particles *over* and *down*, respectively. The sequence of three motion verbs delineates trajectories of movement with end points and, consequently, conveys termination and perfectivity.

(1) a. "Smaug **shot** spouting **into** the air, **turned over** and **crashed down** from on high in ruin." (p. 212)
b. "Smaug **poderwał się**, **przewrócił** brzuchem do góry i **runął** z wysokości **w dół**." (p. 259)
c. "Smaug **poderwał się** do góry, **odwrócił** i z wysokości **runął w dół**." (p. 288)
d. "Smaug **wzbił się** w powietrze, **przewrócił** brzuchem do góry i **runął** z wysokości **w dół**." (p. 350)

All of the Polish quotations (1b), through (1d), have a sequence of perfective verbs with prefixes: *poderwał się*, 'raised', *wzbił się*, 'rose', *przewrócił* (brzuchem do góry), 'literally (lit.) turned over with his stomach up', *odwrócił* (*się*), 'turned away', one shared perfective root verb *runął*, 'tumbled down', and *w dół*, 'down', which is inherently directional, and marks termination of the depicted semantic path. All of Polish quotations (1b), through (1d), comply with the English version in terms of the perfective aspect, the feature of sequentiality, and the remaining features characteristic for the English preterit.

Quotation (2a) consists of three sentences, which respectively contain the preterit deictic verb *came*, grounding the expressed action that is construed as an accomplishment due to the verbal particle *up*. Each first clause of the three successive sentences is a non-canonical construction that exhibits inversion by preposing the verbal particle *up* and the root verb *came*. The said clauses convey sequentiality. Consequently, none of the utterances in (2a) codes the feature of lingering relevance. The other preterit verbs, *was* and *creaked*, respectively, trigger co-occurrence of the communicated situations with the actions lexicalized by *Up came*. All of verbs in (2a) convey the perfective aspect.

(2) a. "**Up came** Bofur, and still all **was** safe. **Up came** Bombur, ... while the ropes **creaked**, and still **was** safe. **Up came** some tools ..., and then the danger **was** upon them." (p. 187)
b. "**Już wydostał się** na półkę Bofur, a katastrofa **się nie zdarzyła**. **Już się ukazał** ... Bombur — ... lina **trzeszczała** groźnie — a katastrofa wciąż jeszcze **się nie zdarzyła**. **Na ostatku wywindowali** narzędzia ... i wtedy dopiero sytuacja **stała się** naprawdę straszna." (p. 226)

c. "Bofur **znalazł się już na górze** — i **nadal byli bezpieczni**. Bombur **zaczął wjeżdżać** na skalną półkę, ... gdy sznury **skrzypiały** ... i **wciąż nic się nie działo**. Dopiero gdy **wciągnęli** narzędzia ..., **zrobiło się** naprawdę groźnie." (p. 252)

d. "**Już wjechał** na górę Bofur, a jeszcze nic się **nie wydarzyło**. **Już ukazał się** nad krawędzią Bombur ... a **wciąż nic się nie działo**. **Już wciągnęli** część narzędzi ... i wtedy **zrobiło się** groźnie." (p. 313)

The translated examples in (2b) through (2d) display a series of contrasts with (2a). The Polish versions trigger lingering relevance semantically by the adverb *już*, 'already', which is used at the beginning of the first two sentences in (2b), within the first clause in (2c), and at the beginning of all the sentences in (2d). Its English equivalent, which is *already* or *yet*, has perfect uses. Since Polish does not have morphological distinction between perfective and perfect verb phrases, it can be assumed that the Polish *już* contributes the perfect aspect to the said clauses. What is more, the prepositional phrases which are used in the Polish versions mark the destination points on the lexicalized semantic paths. Consequently, they contribute perfectivity to the depicted situations: *na półkę Bofur*, 'lit. onto the Bofur shelf', in (2b); *na górze*, 'up', in (2c); *na górę Bofur*, 'lit. onto Bofur hill', and *nad krawędzią Bombur*, 'on the edge of Bombur', in (2d). The prefixal verbs convey anteriority, namely *wydostał się*, 'lit. he escaped', *ukazał się*, 'lit. he appeared', in (2b); *znalazł się*, 'lit. he occurred', in (2c); *wjechał*, 'lit. he went up', *ukazał się*, and *wciągnęli*, 'lit. they drew up', in (2d). Moreover, the three Polish versions express the imperfective aspect, which entails the features 'progressive-durative-continuous': with the verb *trzeszczała*, 'was creaking', in (2b), with the verb *skrzypiały*, 'were creaking', and with the clause *wciąż nic się nie działo*, 'lit. still nothing was happening', in (2c), the clause also occurs in (2d). Furthermore, the version of (2c) lexically codes the imperfective aspect, by the adverb *nadal*, 'still', in the clause *nadal byli bezpieczni*, 'lit. still they were safe'. Apart from the said differences from quotation (2a), the Polish versions of examples (2b), (2c), and (2d), maintain the perfective aspect conveyed by the original version in the following constructions: in *się nie zdarzyła*, 'did not happen', in *Na ostatku wywindowali*..., 'lit. In the end they hauled up ...', and in *stała się*, 'it became', in (2b); in *zaczął wyjeżdżać*, 'lit. he started coming up', in *wciągnęli*, 'lit. they drew up', and in *zrobiło się naprawdę groźnie*, 'lit. it got really threatening', in (2c); in *nic się nie wydarzyło*, 'nothing happened', and in *zrobiło się groźnie*, 'lit. it got threatening', in (2d).

The renditions into Polish of quotations (1a), and (2a), demonstrate that while the canonical order of English clause elements, in (1a), which express the sequencing of past events, maintain the sequentiality of perfective actions in Polish, the non-canonical word order of elements, in (2a), result in alterations of aspect in their Polish versions, which is considered a transference pitfall. All of the quotations from (2b) through (2d), demonstrate the complexity of maintaining even the perfective aspect in the Polish versions, despite the fact that Polish has verbs marked for expressing the past.

Example (3a) conveys the perfect aspect in the verb phrase *have missed*, which lexicalizes a situation whose event time is prior to the time of speech and the temporal reference time is the actual time of speech and, simultaneously, it is the present time. The feature of lingering relevance, which applies to the present time, is crucial in (3a).

(3) a. "«... we **have missed** ... ?»" (p. 206)

b. "... **ominęło nas** ..." (p. 251)

c. "... **przepuściliśmy** ..." (p. 280)
d. " ... **opuściliśmy** ..." (p. 341)

The Polish versions in (3b), (3c), and (3d), respectively, express the perfective aspect with the following prefixal verbs: *ominęło nas*, 'we missed', in (3b); *przepuściliśmy*, 'we missed', in (3c); *opuściliśmy*, 'we missed', in (3d). They occur in the past tense. Lingering relevance is not lexicalized, it is inferred from the discourse. The transference pitfall pertains to the potential of using English verbs which code the perfective aspect instead of the perfect aspect by Polish learners.

Quotation (4a) lexicalizes the perfect aspect in the verb phrase *had left* of the final clause in the whole sentence. The verb phrase *had left* conveys a situation whose event time is prior to the temporal reference point designated by the preterit verb *was*.

(4) a. "... – it **was** still where he **had left** it." (p. 230)
b. "... którą **zastał** tak, jak ją **zostawił**." (p. 282)
c. "... – która nadal **wisiała** tam, gdzie ją **zostawił** ... ." (p. 313)
d. "... – wciąż **wisiała** tam, gdzie ją **zostawił**." (p. 376)

The Polish versions of (4b), (4c), and (4d), do not lexicalize distinctions between perfect and perfective aspects since all verbs which occur in those quotations refer to past actions: *zastał*, 'found', in (4b), and *zostawił*, 'left', in (4b), through (4d); *wisiała*, 'was hanging', in (4c), and (4d), respectively. Apart from the perfective aspect conveyed by the verbs *zastał* and *zostawił*, which respectively position the action in the event time, the imperfective aspect is communicated by the verb *wisiała*. Hence the Polish examples of (4b), (4c), and (4d), express the process in the event time with the perfective verb *zostawił*. Moreover, the first clauses of quotations (4c), and (4d), inform about the reference situation with the verb *wisiała*, therefore, there is no factor of lingering relevance observed. The transference pitfall for Polish learners indicated here is the potential for omitting the feature of lingering relevance in English utterances.

Example (5a) resembles quotation (4a) in terms of the event's initiation point, which is invoked by the pluperfect construction *had already gone*.

(5) a. "Some **had already gone** ... ." (p. 157)
b. "Kilku z nich **już podbiegło** ... ." (p. 190)
c. "Niektóre z nich **zaczęły już** ... ." (p. 214)
d. "Kilku **podbiegło już** korytarzem ... ." (p. 269)

The three Polish versions of (5a) mark lingering relevance semantically with the adverb *już*, 'already'. Nonetheless, only the versions of (5b), and (5d), use *już* in relation to the actual event, conveyed by the perfective verb *podbiegło*, 'ran up to', rendering the perfect construction *had gone*. The version of (5c) omits the accomplishment expressed by *had gone* in (5a), and applies the adverb *już* to the verb *zaczęły*, 'lit. they began already'. Hence the whole action lexicalized by *had already gone* in (5a) is omitted in (5c). A transference pitfall in relation to translating into English Polish constructions that consist of *już* and a perfective verb is that the rendition

could include the adverb *already* and an English verb in the preterit instead of its perfect form. An event noting the features of the perfect aspect may also be progressive, durative, and continuous (see Table 1).

Example (6a) demonstrates a compilation of the semantic features for ongoing and, simultaneously, perfect situations. The verbal group *had been speaking*, used in the clause *Even as Gandalf had been speaking*, constitutes the reference for the completed event, which is lexicalized by *the darkness grew*.

(6) a. "**Even as Gandalf had been speaking** the darkness **grew**." (p. 237)
b. "**Nim Gandalf skończył przemówienie**, ciemności **zgęstniały** wokół nich." (p. 289)
Before Gandalf finished the speech, darkness thickened around them.
c. "Ciemność **pogłębiała się** coraz bardziej." (p. 321)
Darkness was deepening more and more.
d. "**Jeszcze Gandalf nie skończył wołać**, **gdy** ciemność **zgęstniała**." (p. 383)
Yet Gandalf did not finish to call, when/as darkness thickened.

The Polish versions of (6b), and (6d), lexicalize anteriority with the prefixal verb *skończył*, without indicating continuation and duration of the depicted event. The verb *skończył* is marked for termination of the activity which is expressed by the argument of the verb *skończył*. Apart from that, examples (6b), and (6d), include the prefixal verb *zgęstnieć*, 'thicken', which occurs in *ciemności zgęstniały*, 'darkness (plural) thickened', in (6b), and *ciemność zgęstniała*, 'darkness (singular) thickened', in (6d). In addition, example (6b) has the conjunction *nim*, 'before', which introduces a subordinate clause. The conjunction *nim* informs that the situation described by the main clause occurred prior to the event conveyed by the dependent clause (c.f. Dubisz, Ed. 2006, p. 1002, Vol. K–Ó). Hence the Polish conjunction *nim* semantically introduces lingering relevance and anteriority to the situation depicted by the dependent clause. While the version of (6c) omits the subordinate clause, the version of (6d) contains the adverb *jeszcze*, 'lit. yet', and the conjunction *gdy*, 'lit. when; as', which semantically evoke lingering relevance of the reference situation. All of Polish versions (6b), through (6d), have English glosses.

To conclude, the transference pitfalls which are addressed in the present part relate to expressing Polish utterances which do not exhibit the feature of lingering relevance, conveyed by the English versions. A similar problem also concerns other English constructions displaying the feature of lingering relevance, such as the partially filled construction *to have done*, and the perfect aspect of central modal verbs.

'Prior' Situations Conveyed by the Perfect Infinitive Construction to have done

Example (7a) contains the 'cantenative' verb *seem*, which has an "intermediate function" (Quirk et al., 2007, p. 137) because it requires another verbal construction, which is the perfect infinitive construction *to have done*, realized as *to have used*. Example (7a) also codes modality by *seemed*, which is used in the preterit. What is more, the perfect aspect is conveyed by the phrase *to have used*. The verb *seemed* invokes the temporal reference point placed in the past time. The

reference point indicates that the process designated by the main verb *used* is prior to it (c.f. Langacker, 1991, p. 211).

(7) a. "... deserted; **not** even wild animals **seemed to have used** it in all days of Smaug's dominion." (p. 208)
b. "... opuszczone, **widocznie** nawet dzikie zwierzęta **nie zapędziły się tutaj przez** wszystkie lata panowania Smauga." (p. 253)
c. "... puste — **odkąd** Smaug objął panowanie nad Górą, **nie osiadły tu** nawet dzikie zwierzęta." (p. 282)
d. "... ani śladu życia: **odkąd** pod Górą zamieszkał Smaug, żadne zwierzę **nie ośmieliło się tu zamieszkać**." (p. 343)

The three Polish versions of (7a) contain constructions which consist of negated perfective main verbs with the pronoun *tutaj/tu*, 'here', realized as: *nie zapędziły się tutaj*, 'didn't venture over here', in (7b); *nie osiadły tu*, 'didn't settle over here', in (7c); and *nie ośmieliło się tu zamieszkać*, 'didn't dare to settle over here', in (7d). The situations depicted by the said utterances are placed in the past time without lexicalizing lingering relevance, which is conveyed by the English version (7a). The reader of the Polish versions construes lingering relevance by means of the constructions which are underlined in the three Polish versions in this discourse. Hence lingering relevance pertains to circumlocutions: *przez wszystkie lata panowania Smauga*, 'lit. for all the years of Smaug's reign', in (7b); *odkąd Smaug objął panowanie nad Górą*, 'lit. ever since Smaug assumed reigning over the Mountain', in (7c); and *odkąd pod Górą zamieszkał Smaug*, 'lit. since Smaug settled under the Mountain', in (7c). The construals involve lingering relevance, which is triggered by: the preposition *przez*, 'for', related to duration in time, in (7b), the pronoun *odkąd*, 'since (when)', in (7c), and (7d). Consequently, several clauses together evoke lingering relevance in the Polish versions semantically, while a single verb phrase does it in English clauses, like in (7a), which is considered a pitfall for Polish learners of English.

The Perfect Aspect of Selected Central Modal Verbs

The present point deals with the perfect aspect of selected central modal verbs in fragments of discourse, juxtaposed with Polish renditions. The modals in question are two of the epistemic immediate modal verbs: *may* in (8a), and *can* in (9a), also one of the non-immediate modals: *might* in (10a). The English examples from (8a), to (10a), follow the same pattern of use of the given modal verb. Each of them has the auxiliary of the perfect aspect *have* and the perfect participle of the main verb, which is used with the modal in question: *may have been*, in (8a); the negative construction *can't have used*, in (9a); *might have guessed*, in (10a).

(8) a. "«It **may have been** secret once,» ..." (p. 26)
b. "Przejście **było może** ongi ukryte..." (p. 25)
c. "**Może** kiedyś istotnie te drzwi **pozostawały** ukryte ... ." (pp. 32–33)
d. "**Może** to wejście kiedyś **było** tajemne ..." (p. 71)

The Polish versions of (8b), through (8d), have past forms of the main verbs which occur together with the particle *może*, 'perhaps, maybe', in the following expressions: *było może*, 'lit. was perhaps', in (8b); *Może ... pozostawały*, 'lit. Perhaps ... remained', in (8c); *Może ... było*, 'lit.

Perhaps ... was', in (8d). The plausible pitfall which is noted here concerns expressing such Polish clauses in English, with omitting the perfect aspect of the described situations.

(9) a. "«... he **can't have used** it for years and years.» " (p. 26)
b. "... od wielu lat **nie może** go **używać**." (p. 25)
c. "... od bardzo dawna **nie byłby w stanie** z nich **korzystać**."(p. 33)
d. "... od wielu, wielu lat **nie może** z tego wejścia **skorzystać**." (p. 71)

The Polish versions of quotation (9a) contain the imperfective verb *móc* (*coś zrobić*), 'can (do something)', which is used as *może* (*coś zrobić*), 'lit. s/he can (do something), s/he is able (to do something)', in (9b) and (9d). Its synonymous expression is *być w stanie* (*coś zrobić*), 'to be able (to do something)', which occurs in (9c). The version of (9c), has the conditional verb *byłby*, 'lit. he would be', which is used in the construction *byłby w stanie* (*coś zrobić*), 'lit. he would be able (to do something)' (c.f. Dubisz, Ed. 2006, p. 1371, Vol. P–Ś). At a higher level of complexity, the constructions *może* (*coś zrobić*) and *byłby w stanie* (*coś zrobić*), respectively, are interrupted by complementing objects: *nie może go używać*, 'lit. s/he cannot use it', in (9b); *nie byłby w stanie z nich korzystać*, 'lit. he wouldn't be able to use them', in (9c); *nie może z tego wyjścia skorzystać*, 'lit. s/he cannot use this exit', in (9d). While *może* correlates with the central modal verb *can*, the expression *byłby w stanie*, 'he would be able to', invokes the common semi-auxiliary *be able*. Moreover, the phrase *can't have used* conveys the perfect aspect in (9a), but the Polish versions of (9b), and (9c), code the imperfective aspect by the imperfective main verbs: *używać*, 'use', and *korzystać*, 'use', respectively. The prefixal verb *skorzystać*, 'use', in (9d), is perfective, but the action expressed by it does not exhibit lingering relevance, nor anteriority. Hence the perfect aspect of *can't have used* is not maintained by the Polish versions, which is considered a pitfall for Polish users of English for expressing Polish construals in English.

(10) a. "«I **might have guessed** it,»." (p. 193)
b. "**Mogłem** się tego spodziewać ... ." (p. 234)
c. "**Mogłem** się tego spodziewać ... ." (p. 261)
d. "**Mogłem** się tego domyślić ... ." (p. 323)

The Polish examples of (10b), through (10d), have the verb *móc*, 'can; to be able to', used as *Mogłem*, 'I (masculine gender) could'. The presumed pitfall is in translating *mogłem* into English, which could result in *I could*.

Knowledge of perfect constructions of English central modals is essential in relation to quotations (8a), (9a), and (10a). The Polish renditions of the three English versions show that there are different grammatical means for expressing such constructions in Polish, which does not communicate the perfect aspect. Polish has perfective verbs, nevertheless, conveying the perfect aspect of English central modals into Polish may result in transference pitfalls. For example, *może było*, in (8b), and (8d), can be rendered as 'perhaps it was'; *nie może z tego wejścia skorzystać*, in (9d), may be translated as 's/he cannot use this exit'; and *mogłem*, in (10b–d), is likely to be expressed as 'I could'. Consequently, it is not only lingering relevance within perfectivity that is drawn attention to as a pitfall for Polish learners of English, but also

distinguishing between ongoing events and habitual-repetitive events and states because of the 'general imperfective form' for both (Smith, 1997, p. 74).

Imperfective Present Situations: Progressive vs. Non-progressive

Example (11a) conveys a progressive process. The interrogative sentence *What are you doing*? places the designated temporary activity in the time of speech. The recipient of the said question construes a durative situation, an ongoing activity.

(11) a. "... What **are** you **doing**?" (p. 228)
b. "... Co **tu robisz**?" (p. 278)
c. "... Co **tu robisz**?" (p. 309)
d. "... Co **tutaj robisz**?" (p. 372)

The three Polish versions have the imperfective verb *robisz*, 'you do, you are doing', inflected for the present tense. The verb itself does not encode a progressive activity, as one may reformulate the question as *Co zwykle robisz*, 'What do you usually do', which implies a habitual, also a repetitive process. It is the pronoun *tu/tutaj*, 'lit. here/in here', which could trigger a continuing situation. The construal of an ongoing process, however, depends on the preceding discourse, *Ktoś tu jest*, 'lit. Someone is in here', in (11b); *Ktoś ty*, 'Who are you', in (11c); *Kim jesteś*, 'Who are you', (in 11d). The pitfall drawn attention to in relation to (11a) is that a Polish user of English may express the construction in focus as *What do you do*?, which is grammatically correct, but pragmatically, it is not accepted in an ongoing situation in the present time.

The English version of (12a) codes a state in the present time by the verb *know*, used in two clauses, affirmative and negative, respectively.

(12) a. "I **know** your king well by sight, though perhaps **he doesn't know** me to look at." (p. 228)
b. "Dobrze **znam** z widzenia waszego króla, chociaż **on** pewnie **nigdy mnie nie widział**." (pp. 278–279)
c. "– **Znam** dobrze z widzenia waszego króla, choć **zapewne byłoby to dla niego niespodzianką**." (p. 309)
d. "**Znam** dobrze z widzenia waszego króla, choć **on pewnie nie wie**, **jak wyglądam**." (pp. 372–373)

The three Polish initial clauses of (12b), through (12d), contain the imperfective verb *znam*, 'I know'. The second clauses of (12b), through (12d), however, realize different linguistic solutions: *on nigdy mnie nie widział*, 'lit. he never saw me', in (12b), marked for the perfective aspect; *zapewne byłoby to dla niego niespodzianką*, 'lit. it probably would be a surprise for him', in (12c), which is a circumlocution; and *on pewnie nie wie, jak wyglądam*, 'lit. he probably does not know what I look like', in (12d), which is another example of circumlocution. Consequently, the real pitfalls for Polish students of English could be the negative clauses and the circumlocution. It is likely that the second clauses of the three Polish versions will be rendered into English literally. Polish discourse has verbs which are not distinct in terms of the *progressive-durative-continuous* lexical aspect on the one hand, and the *habitual-repetitive* aspect on the other hand, neither in the present time nor in the past time, which could be a

pitfall for Polish learners of English who have to distinguish between ongoing and habitual-repetitive situations while communicating in English.

Perfective and Imperfective Past Situations

Quotation (13a) includes predicators *came about*, and *sat*, which trigger perfective situations with imperfective background, expressed by the clause *Bilbo was sitting*.

(13) a. "That is how it **came about** ..., Bilbo **was sitting** ..., and there **sat** too, ... both the Elvenking and Bard." (p. 228)
b. "Tak się **stało** ... Bilbo **siedział**, ... a naprzeciw niego, ... **zasiedli** król elfów i Bard." (p. 279)
c. "**W ten** oto **sposób** ... Bilbo **zasiadł** ... a naprzeciw, ... **zajęli miejsca** Bard oraz król elfów." (p. 309)
d. "I **w ten sposób** ... Bilbo **siedział** ... a król elfów i Bard przypatrywali mu się ciekawie." (p. 373)

The Polish version of (13b) maintains the said construal with the perfective reflexive verb *stało się*, 'lit. it happened'; the imperfective verb *siedział*, 'he was sitting'; and the perfective prefixal verb *zasiedli*, 'lit. they sat down'. Nonetheless, the versions of (13c), and (13d), introduce alterations to the construal which is evoked by the English version of (13a). Both of which include the prepositional phrase *w ten sposób*, 'in this/that way', which is a circumlocution substituting different verbal expressions. Moreover, they alter the aspect of one of the other two situations: (13c) has *Bilbo zasiadł*, 'Bilbo sat down', which denotes the perfective aspect, and (13d) omits the situation expressed by *sat* in (13a). The Polish alterations of the original construal demonstrate a potential pitfall for Polish learners of English. Perfective and imperfective actions communicated in English appear to be problematic for Polish learners of English, unless they construe the lexicalized processes by delving into semantics of the depicted situations.

Summary

The present discourse focuses on English verbs deeming selected aspects of the related categories of TAM. It delineates mainly Givón's approach to aspect with regard to a cognitive interpretation of grammar (Langacker, 1987, 1991, 2008) resting upon conventional imagery. Langacker (1991) stated that English auxiliary verbs "carry information about polarity as well as tense and aspect" (p. 200). Moreover, according to Langacker (1991), auxiliary verbs are "schematic members" (p. 193) of verb groups. Polish has only one auxiliary verb, which is *być*, 'to be', coding the categories of tense, aspect, mode and gender, used exclusively in verbal groups carrying the imperfective future tense (Grzegorczykowa et al., 1984, p. 172). As a result, English TAM constructions pose pitfalls for Polish learners of English. The present paper addresses the necessity of construing the situations depicted by English TAM constructions, which seem 'abstract' to many Polish students. It demonstrates selected grammatical areas of potential errors in English clauses in relation to the features of TAM, susceptible to transference from Polish. The excerpts featured as topical pitfalls are mainly expressions of counter-sequentiality vs. lingering relevance, generally, and applied to the *to have done* construction;

furthermore, progressive-durative-continuous, and habitual-repetitive situations conveyed in English. As to modality, attention falls on three modal verbs coding epistemic modality with the feature of default relevance: *may*, *can*, and *might*. The paper attempts to highlight the potential areas of errors for Polish users of English regarding perfectivity and imperfectivity of the English verbs and other clause elements, referring to Givón's (2001) view of aspect and Verkuyl's (1993) perception of clause aspectuality. The author of the present discourse recommends envisioning the semantic situation types, as per Smith (1997), which combine with the grammatical perfective and imperfective view-points. Although Polish contains the perfective and imperfective aspects, it does not code grammatically the feature of lingering relevance in the perfect aspect and it does not expose the progressive aspect in verbs, which have 'general' present tense imperfective forms. The English perfect aspect and the progressive aspect respectively are conveyed formally, by main verbs preceded by auxiliary verbs, which also code tense and modality. As a result, English TAM constructions pose pitfalls for Polish learners of English, several of which are demonstrated through thirteen examples of extracts from *The Hobbit* by Tolkien contrasted against three Polish versions of translation each.

Conclusions

Classroom observations may reveal a tendency for literal translation from Polish into English of expressions posing the said pitfalls. Students are likely to translate the Polish words which trigger semantic aspect, such as the adverb *już* 'already', literally into English, with a preterit verb, instead of using a verb with the perfect aspect. Moreover, utterances with English epistemic modal verbs which exhibit the perfect aspect, such as the *might have done* construction, can be expressed in English without lexicalizing the feature of lingering relevance, which is shown by the demonstrated examples of Polish translations of *The Hobbit*. Consequently, without sufficient exposure to discourse lexicalizing patterns of central modal verbs occurring in the perfect aspect, the past tense of a deontic modal verb, such as *could* for past ability, may be used instead of *might have done* for past possibility. Students may also confuse the simple present verb form with the progressive form not having the contrast marked in Polish verbs. Finally, combining the perfect aspect with a progressive situation, such as expressed by the *have/has been doing* construction may appear problematic on two counts, due to the perfect aspect and the ongoing situation. Adding an epistemic modal, as in *might have been doing*, will increase the translational challenge, not from English to Polish, but from Polish to English. The recommendation of the present discourse is that Polish learners of English ought to read English passages of text with focus on TAM utterances, in order to interpret and construe the interplay of the depicted situations, instead of just learning the given constructions. English L2 users can also obtain the posed objective via 'pattern discourse', such as extracts of text accessible through manifold corpora of the English language on the Internet. Nonetheless, web contacts with English speaking peers, via social media, can motivate and encourage Polish students to avoid various 'pitfalls' of use of English grammatical constructions through discussions. Even more recommended are face to face conversations in English, which can motivate learning through "immersion" (e.g. Anderson & Rhodes, 1983). With English as the

lingua franca, adult learners should take advantage of opportunities to use English as the language of business communication in real time or for example, social gatherings while travelling or on holiday. All in all, exposure to extensive discourse, written or spoken, displays a potential for sensitizing learners of English not only to the temporal relations in English clauses, but also to the aspectual situational viewpoint contrasts, and variable modality.

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The locative syntax of Experiencers. The case study of phraseological units as psych-predicates

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Abstract

The name *psych-verbs* is commonly assigned to verbs denoting mental or emotional states, such as *fear*, *worry*, *frighten*, or *surprise*. Such verbs select a participant/an individual who experiences an emotional or mental state, usually referred to as an *Experiencer*, and a non-Experiencer argument, sometimes called *stimulus*, *trigger of emotion*, *causer* or *target/subject matter*, or subsumed under the label of '*theme*' (Landau, 2010, p. 5). The special behaviour of Experiencers, related to the so-called 'psych effects', is the reason why psychological predicates have been a subject of debate in theoretical syntax for several decades.

The aim of this study is to check whether English verbal phraseological units, which denote a psychological condition of an Experiencer and occur with locative Prepositional Phrases (PPs), may serve as evidence for Landau's (2010, p. 6) hypothesis of 'Experiencers as mental locations'. Landau's theory has been chosen since it covers a much broader variety of data, in comparison with the previous approaches, offered by Belletti & Rizzi (1988), Grimshaw (1990), and Pesetsky (1995), among others.

The data analysed in the paper have been extracted from English dictionaries of idiomatic expressions, supported with the COCA *Corpus*. The study focuses on Object Experiencer verbal phraseological units that display a structure V + PP. The results of the study reveal that, in total, out of 3,000 tokens, there are only 50 psychological verbal idiomatic expressions with an Object Experiencer. However, the data show that a lexical P with the *Experiencer* as an object appears only in 13 (26%) idiomatic expressions out of the 50, whereas 37 items (74%) include an *Experiencer* preceded with no P. The latter might be treated as exhibiting an oblique Experiencer with a null preposition. However, no relevant syntactic evidence can be found in support the claim that there is a covert P in this type of phrase. Therefore, the results do not provide enough evidence in favour of Landau's (2010) theory of Experiencers as mental locations, placed either in a covert or overt PP.

Keywords: psych-verbs, Experiencers, mental locations, verbal idioms

1. Introduction

The name *psych-verbs* is commonly assigned to verbs denoting mental or emotional states, such as *fear*, *love*, *worry*, *frighten*, or *surprise*. Such verbs select a participant/an individual who experiences an emotional or mental state, usually referred to as an *Experiencer*. The non-Experiencer argument, in turn, is sometimes called *stimulus*, *trigger of emotion*, *causer* or

target/subject matter, or simply subsumed under the label of '*theme*' (Landau, 2010, p. 5). The special behaviour of Experiencers, related to the so-called 'psych effects', is the reason why psychological predicates have been a subject of debate in theoretical syntax for several decades.

The aim of this paper is to check whether English verbal phraseological units, which denote a psychological condition of an Experiencer and occur with locative Prepositional Phrases (PPs), may serve as evidence for Landau's (2010, p. 6) hypothesis of 'Experiencers as mental locations, that is, locative'. Therefore, the paper is set in the theoretical framework of Landau (2010). In his monograph, *The Locative Syntax of Experiencers* (2010), Landau offers a comprehensive theory of the syntax of psych-verbs. Not only does Landau link Experiencers with locatives, which has never been recognised before, but he also combines various ideas into a coherent proposal in which Experiencers are viewed as mental locations, i.e. as locative Prepositional Phrases (PPs) undergoing locative inversion (LI), either overtly or covertly, depending on the language. Landau's theory also covers a much broader variety of data, in comparison with the previous approaches, offered by Belletti & Rizzi (1988), Grimshaw (1990), and Pesetsky (1995), among others.

In the article, which comprises four sections, the following part, section 2, provides a classification of psych-verbs offered in the literature. It also presents the key distinction between Subject Experiencer and Object Experiencer psych-verbs, with a special focus on Object Experiencer (ObjExp) psych-verbs, which, in contrast to Subject Experiencer (SubjExp) psych-verbs, are syntactically more complex, exhibiting a number of seemingly conflicting properties (cf. Landau, 2010, p. 5). Besides, an overview of syntactic properties of English ObjExp psych-verbs is offered, which is relevant for an analysis undertaken in the paper. The aim of the research part, in Section 3, is to find some equivalents of psych-verbs among the phraseological verbal idiomatic units that depict the mental/emotional condition of an Experiencer. An attempt is made to check whether it is justified to treat those phraseological items as periphrastic variants of psych-verbs with locative Prepositional Phrases (PPs). Finally, the paper ends with the summary, provided in section 4.

2. Classification and syntactic properties of psych-verbs

2.1. Defining and classifying psych-verbs

The working definition of psych-verbs adopted for the purpose of our analysis is the one provided by Landau (2010, p. 4n2), who defines psychological verbs as those which carry "psychological entailments involving an individual being in a certain mental state". Thus, *frighten* is a psych verb in a sentence 'This science fiction film *frightens* Nina' since it means that Nina is in a certain mental state (i.e., fright) caused by the science fiction film; whereas *visit* is not a psych verb, on account of the fact that 'Charles *visits* Nina' involves no state of mind either of Charles or of Nina.[1]

[1] According to Klein & Kutscher (2005, p. 2), from the semantic point of view, psych-verbs can be sub-classified into verbs denoting emotions (*love*, *frighten*, etc.), perception verbs (*see*, *taste*, etc.), cognitive verbs (*think*,

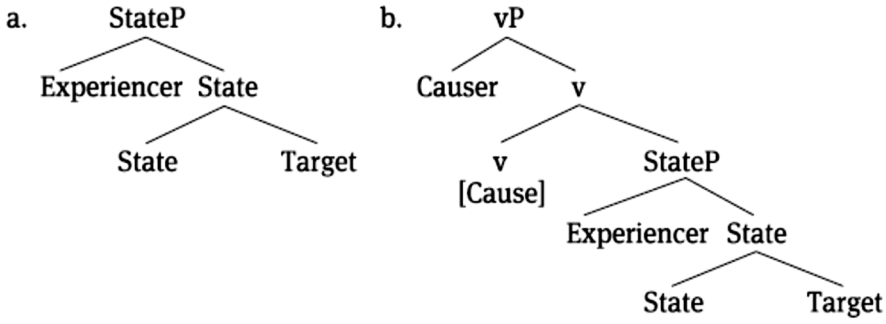
Psych-verbs may, in general, be divided into Subj(ect)Exp(eriencer) verbs and Obj(ect)Exp(eriencer) verbs, following the convenient terminology suggested in Pesetsky (1995), as illustrated in (1):

(1) a. **Nina** *fears / likes / adores* this science fiction film.
(**Subject → Experiencer**) *psych-verbs* (Object → Cause / Target / Theme)

b. This science fiction film *frightens / disgusts / amuses* **Nina**.
(Subject → Cause / Target / Theme) *psych-verbs* (**Object → Experiencer**)

Interestingly, Fábregas & Marín (2015, p. 169), in their recent paper, argue that "there is a core involved in all formal psych verbs (2a): a mental state which relates the Experiencer with the entity towards which this state is targeted." The core matches up the structure of SubjExp psych-verbs, whereas ObjExp psych-verbs are built over this core by adding another layer codifying causation, but without any process (dynamic part) contained within the event structure, as illustrated in (2b).[2]

(2)



Consequently, Fábregas & Marín (2015, p. 167) maintain that SubjExp psych-verbs denote individual level (IL) states, i.e., states without boundaries, whereas ObjExp psych-verbs should be classified as states of the stage level (SL) class since they denote states with an onset.[3]

Taking into account the relationship between the lexical properties of psych-verbs and their syntactic structure, i.e., remaining within the lexicon-syntax interface, Landau (2010, pp. 5-6), follows Belletti & Rizzi's (1988, pp. 291-292) tripartite classification of psych-verbs, as displayed in (3), which I adopt for the sake of the paper.

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assume, *muse*, etc.), and evaluating verbs (*respect*, *appreciate*, etc.). However, some of the verbs listed here do not satisfy Landau's definition of psych-verbs.

[2] It was Pesetsky's (1995) original claim that ObjExp psych-verbs subsume SubjExp psych-verbs.

[3] Class I (Subject Experiencer) verbs comprise individual-level and stage-level predicates (*love* vs. *worry*), and the latter are often related to inchoative (showing a process of beginning or becoming) or reflexive morphology, which is likely to have an agentive interpretation (cf. Pesetsky, 1995; Reinhart, 2002; Pylkkänen, 2000).

(3) a. Class I: Nominative Experiencer, accusative Theme
John loves Mary.
b. Class II: Nominative Theme, accusative Experiencer
The show amused Bill.
c. Class III: Nominative Theme, dative Experiencer
The idea appealed to Julie.

Class I Subject-Experiencer (SubjExp) psych-verbs include verbs like *hate*, *love*, or *adore*, which feature a nominative Experiencer, and an accusative Theme, as in (3a) and (4):

(4) **Paul** *hates*/*adores*/*loves* classical music. (Experiencer as the subject)

They are generally regarded as verbs similar to other transitive stative verbs (e.g. *know*). Landau (2010), similarly to Belletti & Rizzi (1988), treats Class I SubjExp psych-verbs as regular transitive verbs. However, he adopts Arad's (1998) argument that even stative SubjExp verbs can denote locative relations. Thus, the Experiencer is either conceived of as the 'substance' contained in the mental state or the container in which the mental state resides, as illustrated in (5).

(5) a. Monica is in love (with Paul).
b. There is in him a great appreciation for artists. (cf. Arad, 1998, p. 228, ex. 83)

Landau (2010, p. 17) argues that his contention that the Experiencer denotes a mental location holds true, even when the Experiencer occurs as a bare nominal, as in the case of SubjExp verbs in Hebrew, French and Navajo. He emphasises that in those languages and in many others there occur frequently periphrastic constructions, comprising the verbs *be*/*have*, a psych noun and an Experiencer location, as illustrated in (6a). Besides, in Irish and Scottish Gaelic, Experiencers are solely introduced by locative prepositions, as exemplified in (6b).

(6) a. Jean a peur de Marie.
Jean has fear of Marie
'Jean is afraid of Marie'
(Bouchard, 1995, p. 266, ex. 13a,g)

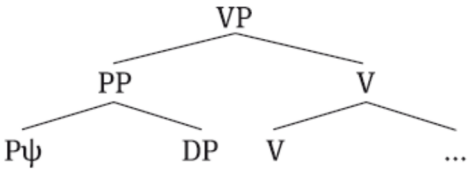
b. Tá eagla roimh Y ar X.
is fear before Y on X
'X is afraid of Y'
(McCloskey & Sells, 1988, ex. 77a)

Exhibiting semantic parallelism with locations, even in languages like English, where they always take the nominative (non-oblique) form, SubjExps denote a path, either as a goal or a source, in contradistinction to non-Experiencer subjects, as in (7) (cf. Speas, 1990, ex. 3,7).

(7) a. He got furious but it went away.
b. He tried to remember my name, but it wouldn't come to him.[4]

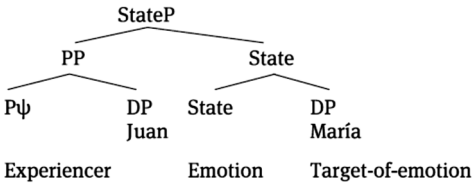
In addition, Landau (2010) emphasises the fact that SubjExps, which are stative transitives, behave in a unique way when they co-occur with a locative preposition5 (cf. Doron, 2003). Similarly, Fábregas & Marín (2015, pp. 234, 265) make a proposal that SubjExp psych-verbs can also be captured in terms of a PP, as in (8a), following Landau's (2010) representation, or in their revised version, as in (8b).

(8) a.



b.

Juan teme a María.
Juan fears ACC María
'Juan fears María.'



Nonetheless, both Landau's (2010) and Fábregas & Marín's (2015) assumptions about the locative nature of SubjExps have not be proved by providing relevant evidence so far.

In a nutshell, it is the syntactic behaviour of Experiencer objects which deviates from that of canonical objects in various languages.[6] For decades, these so-called psych effects have been studied in the theoretical as well as recent experimental research. The distinct properties of ObjExp psych-verbs will be of main interest in the subsequent section.

2.2. Object-Experiencer verbs and their syntactic properties

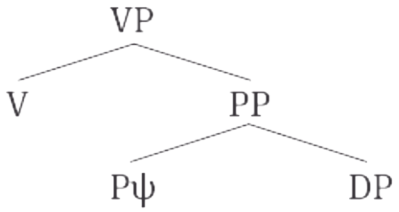
Limiting his analysis to the VP-structure, and following an extensive discussion in Pesetsky (1995) and Iwata (1995), Landau (2010, p. 8) claims that a psychological predicate is identified in the grammar by the presence of a specific structure, as presented in (9).

4 This evidence, as claimed by Speas, proves that dative SubjExps of South Asian languages (e.g., Malayalam) and the nominative SubjExps of English differ from each other strictly syntactically, while conceptually, in both languages Experiencers correspond to locations.

5 Cf. Landau's (2010, p. 13-15) analysis of Hebrew, in which there exists a paradigm of adjectival passives, *beynoni pa'ul*, which expresses the verbal external argument in a *by*-phrase. However, in the case of subject Experiencer verbs the preposition *al-yedey* 'by' is replaced by the locative preposition *al* 'on'. Consequently, the original object remains accusative, and the original subject – the Experiencer – becomes oblique, with the preposition *al* 'on'.

6 As stated by Landau (2010), the specific syntactic behaviour of ObjExp is best visible in peculiarities concerning binding, extraction/islandhood, reflexivization and argument linearization, etc.

(9)

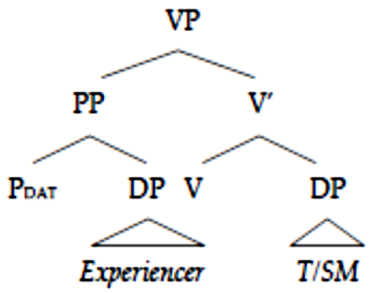


The structure in (9) is typical of ObjExp psych-verbs, and as a verbal structure it shows an Experiencer licensed by a prepositional structure. Besides, with this concrete structural representation for ObjExp psych-verbs in mind, Landau (2010, p. 8) offers more detailed structures in (10) and (11), with the structural analyses of both class II and class III verbs. He ascertains that psych-verbs of class II and III are special due to the oblique nature of their Experiencers.

With class III verbs, classified as unaccusative, for most languages, the Experiencer is either encoded by means of an oblique case (often dative) or by means of a PP, following Belletti & Rizzi (1988), Pesetsky (1995), and Arad (1998), among others. This assumption is also made by Landau (2010, pp. 19-20), who points out that object Experiencers universally bear inherent case, and that inherent case is universally assigned by a P. In class III verbs, the *theme* argument of these verbs is not a *Causer* but rather a *Target/Subject* Matter, *T/SM* (Pesetsky, 1995). Besides, in languages where the dative marker is not an independent preposition, class III Experiencers are governed either by a lexical preposition (English) or a null preposition Øψ (in languages with morphological case), which assigns the dative case. The VP structure of this type of psych-verbs is then as in (10).

(10) Class III verbs – unaccusatives

$[_{VP}\,[_{PP}$ P DP$]\,[_{V'}$ V DP$]]$ (Landau, 2010, p. 8, ex. (12b))
Experiencer Theme



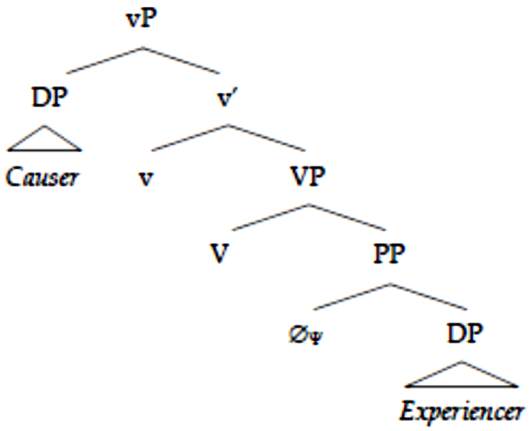
In (10), the Experiencer may move overtly to the subject position (depending on the language), resulting in the so-called 'quirky' subjects, or covertly, forming the "second" subject (Landau, 2010, p. 88). The latter case is valid for languages like English, which prohibit case-marked Determiner Phrases (DPs) in the specifier of Tense (Spec,TP)). In English, the theme argument raises to [Spec,TP] overtly, and the Experiencer raises to a second [Spec,TP] at LF. This effect not only creates a multiple-specifier structure, but it also can be called LF-quirkiness (Landau,

2010, p. 87). Besides, class III ObjecExp verbs are stative unaccusatives, which means that they can never be used agentively.

Undeniably, the oblique nature of Experiencers is much less obvious with class II verbs, which in many languages apparently occur with nominal (accusative) object Experiencers. Landau (2010) classifies class II verbs into three groups: **(i) stative verbs** like *interest*, *concern*, *depress*, which are unaccusatives and have the same structure as class III verbs (except that the Experiencer with these verbs is governed by a null P). Moreover, **(ii)** the second and the major group contains **eventive non-agentive verbs** like *frighten*, *anger*, *surprise*, which in the transitive use have a *Causer* as an external argument, projecting a light *v* (cf. Arad, 1988; Pesetsky, 1995; and Iwata, 1995, among others), and the Experiencer as an oblique object, as represented in (11).

(11) Class II verbs – transitives

[$_{VP}$ DP [$_{V'}$ V [$_{VP}$ V [$_{PP}$ P DP]]]] (Landau, 2010, p. 8, ex. (12b))
Causer Experiencer

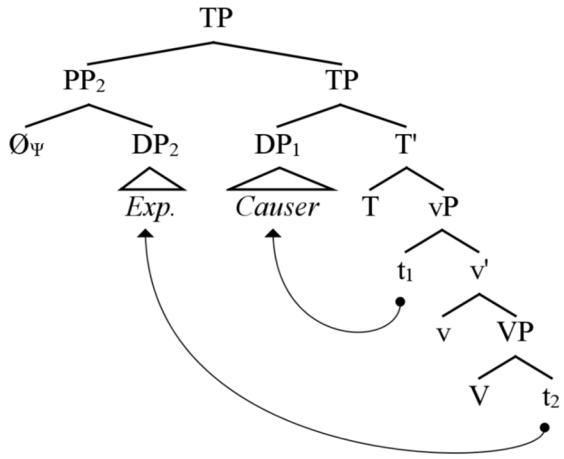


The third **(iii)** group of class II verbs comprises **eventive agentive verbs**, considered to be regular transitive verbs that take a direct object. This class differs from non-agentive predicates since it does not show the special syntax of psych verbs. Accordingly, even though some class II verbs are only either stative (*concern*) or eventive (*startle*), the borderline is not clear-cut as some verbs in class II are ambiguous, or allowing for both stative and eventive readings (*frighten*). Landau (2010, pp. 55-56) underlines that, in fact, most class II verbs are ambiguous, to varying degrees, between stative and eventive readings. The unaccusative status is exhibited empirically only by those verbs (like *concern*, *interest*) which are unambiguously stative. Thus, he assumes that only stative class II verbs lack, in their thematic grid, a causer argument, which is the source of eventive interpretation.[7]

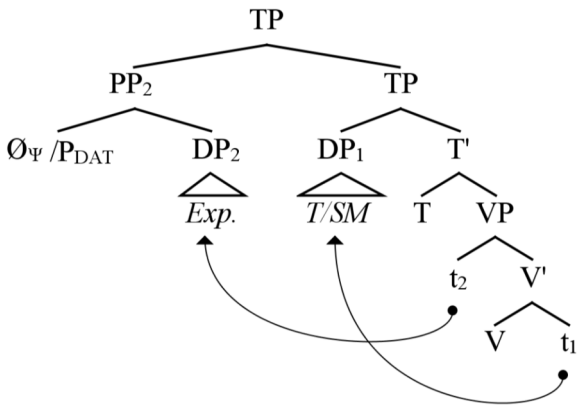
[7] For Italian, Belletti & Rizzi (1988) identify Class I of psychological verbs as the one with the uncontroversial transitive structure, since the Experiencer has the external θ-role, and no inherent Case is assigned. Class II and class III of psych-verbs, with no external θ-role, and the Experiencer related to an inherent Case (accusative and dative), are associated with, according to Belletti & Rizzi (1988), an unaccusative structure.

Generally speaking, these special psych properties, restricted to ObjExp verbs, as argued by Landau (2010, pp. 127-128), are related to the presence of a (possibly null) locative preposition with a [loc] feature, governing the ObjExp. Accordingly, the absence of these properties must be a sign of the absence of the preposition; thus, agentive contexts (with no psych properties) exclude the psych-preposition. Besides, due to locative inversion an Experiencer object in class II verbs is raised to the subject position, while all Experiencers become LF-subjects, taking [Spec, TP], as shown in (12a-b) for eventive and stative psych verbs.

(12) a. Eventive psych-verbs: LF



b. Stative psych-verbs: LF



What is more, refuting Belletti & Rizzi's (1988) assumption about the unaccusative status of psych verbs of eventive class II,[8] Landau (2010) claims (following Pesetsky, 1995) that most

[8] Landau (2010, pp. 19-20) deals with Belletti & Rizzi's (1988) claim concerning the unaccusativity of II and III class psych-verbs. He says that it is unproblematic for class III verbs, which assign dative case to the experiencer and select the auxiliary *essere*. Nonetheless, class II verbs with these two properties are never found: they select the auxiliary *avere*, and assign the accusative case, violating Burzio's (1986) generalization. The second problem relates to the fact that class II verbs assign *inherent* accusative, which Landau (2010) takes for granted, similarly to Belletti & Rizzi (1988), while Burzio's generalization only regulates the assignment of *structural* accusative. Thus inherent accusative can be assigned even in the absence of an external argument.

class II verbs are *not* unaccusatives. Besides, he proposes that, commonly, non-nominative Experiencers bear inherent case, which is assigned by a P (cf. Emonds, 1985). This implies that nominals marked for inherent case are always dominated by a PP node. This PP may be headed by a lexical P (as in English obliques) or a null P (as in Latin obliques), but both cases are structurally distinct from bare DPs (Landau, 2010, pp. 21-22).

Additionally, providing a wide range of syntactic properties of ObjExp verbs in different languages, from a variety of perspectives, Landau (2010) makes an attempt to prove that Experiencers behave like datives/PPs, i.e., locatives. Such psych properties are divided, according to Landau (2010, pp. 75), into core and peripheral ones, with a distinction which languages they are typical of, as in (13):

(13) A classification of Psych Properties

(I) Core Properties

(a) *All Class II Verbs (Non-agentive)*

1. Overt obliqueness of Experiencer (Navajo, Irish, Scottish Gaelic).
2. Accusative / Dative alternations (Italian, Spanish).
3. Islandhood of Experiencer (Italian, English).
4. PP-behavior in *wh*-islands (English, Hebrew).
5. No synthetic compounds (English).
6. No Heavy NP Shift (English).
7. No Genitive of Negation (Russian).
8. Obligatory clitic-doubling (Greek).
9. Obligatory resumption in relative clauses (Greek, Hebrew).
10. No *si/ se*-reflexivization (Italian, French).
11. No periphrastic causatives (Italian, French).
12. No verbal passive in type B languages (Italian, French, Hebrew).

(b) *Class III and Stative Class II (Unaccusatives)*

1. No verbal passive (English, Dutch, Finnish).
2. No periphrastic causatives (French, Italian dialects).
3. No forward binding.

(II) Peripheral Properties

1. The T/SM restriction.
2. No causative nominalizations.
3. Backward binding.

(Landau, 2010, p. 75)

All the core psych properties can be encountered only in non-agentive contexts, while if an agentive context appears, a class II verb behaves like any ordinary transitive verb (cf. Belletti & Rizzi, 1988; Grimshaw, 1990; Bouchard, 1995; Arad 1998, 2000; Landau, 2010). While Belletti & Rizzi (1988) and Arad (1998) associate all the special psych properties with the unaccusative nature of class II verbs, actually the single issue of unaccusativity cannot distinguish agentive from non-agentive class II verbs in the general case (cf. Pesetsky, 1995). Instead, Landau (2010, p. 129) assumes that 'the agentivity puzzle' should be resolved with the meaning shift from a non-agentive to an agentive reading of a class II verb, which is complemented with an aspectual shift, as stated in (14).

(14) a. Agentive class II verbs are change-of-state verbs (i.e., accomplishments).
b. Non-agentive class II verbs are states or achievements.

Accordingly, ObjExp verbs on the agentive interpretation are change-of-state verbs, i.e., accomplishments. In the agentive context, the Experiencer who undergoes the change of state, becomes an affected argument, i.e., a direct object (Dowty, 1991), a bare DP Experiencer. As a result, Experiencer objects of agentive class II verbs cannot raise to the subject position since they are bare nominal receiving structural accusative case. In turn, non-agentive class II verbs are states or achievements (Landau, 2010, pp. 129-131).[9] The special behaviour of psych verbs, i.e., their genuine psych-effect, is restricted to non-agentive contexts (subject as a theme), whereas when the predicates are used agentively, the subject is a volitional agent while the Experiencer plays the role of a patient.

Furthermore, Landau (2010, pp. 18-19) claims that an oblique construction forces a non-agentive reading, but a transitive construction does not force an agentive reading. Thus, the oblique Experiencer correlates with a non-agentive subject. Indeed, non-agentive ObjExp constructions are universally oblique. For most languages, the preposition governing the Experiencer is null (Øψ), i.e., it involves a PP headed by Øψ (as in English). The 'psych' prepositions have different versions across languages; however, Irish psych predicates are special since that preposition is overt (usually, *ar* 'on'). In short, all class III verbs are stative (unaccusative), and never used agentively, while most class II verbs are ambiguous between the three readings, i.e., (i) stative (unaccusatives), (ii) eventive agentive (regular transitives), (iii) eventive non-agentive (stative / transitive).

To conclude, Landau (2010, p. 131) argues that it is the Experiencer that undergoes the change of state in the agentive context, contrary to the Experiencer in non-agentive (class II) contexts, which does not undergo a change of state in the aspectually relevant sense. Instead, it is either a locus where a mental state resides (statives) or appears (achievements). In these so-called 'locative' contexts, Øψ is a crucial interpretive ingredient.

2.3. Syntactic properties of English psych-verbs

Based on the core and peripheral properties, reproduced in (13), which Landau (2010, p. 75) lists as typical of psych-verbs, syntactic diagnostics can be set to distinguish psych-verbs from other verbs, and non-agentive from unaccusative psych-verbs. Five of the core properties are applicable to characterise English psych-verbs, as illustrated in (15).

(15) a. *All Class II Verbs (Non-agentive)*
i. Islandhood of Experiencer
ii. PP-behaviour in wh-islands
iii. No synthetic compounds
iv. No Heavy NP Shift

[9] This approach is compatible with Marín & McNally's (2011) account and an earlier analysis of psych verbs offered by van Voorst (1992). For a further discussion upon the aspectual properties of psych verbs cf. Grimshaw (1990), Pesetsky (1995) and Pylkkänen (2000), among others.

b. *Class III and Stative Class II (Unaccusatives)*
   i. No verbal passive (English, Dutch, Finnish).

Even though prepositional objects in English are not strong islands, some cases may be acceptable, as in (16).

(16) a. * Which film was Dirk amusing to the director of?
b. Which film did Sam entrust Marilyn to the director of?

(Roberts, 1991, ex. 43a,c)

Landau (2010, p. 29) points out, citing Roberts' (1991) examples in (16), that the Experiencer shows islandhood as an object of a non-agentive psych predicate, as in (16b), but not as an object of an agentive predicate, as in (16a) (cf. Johnson, 1992 and Stowell, 1986).

More to the point, the PP-like behaviour of class II non-agentive psych-verbs in *wh*-islands is illustrated in (17). The data in (17) allow us to conclude that English treats accusative Experiencers as PPs in certain contexts. Landau (2010, pp. 29-30) makes a claim that Experiencer objects behave like adjuncts since they are more resistant to extraction from *wh*-islands than other direct objects. Nevertheless, (17b) gives the impression that its ill-formedness, even though greater than that of (17a), is not as strong as that of standard adjunct extraction out of a *wh*-island (17c), but it still seems to have just the status of PP-extraction (17d).

(17) a. ?? Who did you wonder whether Sam knew?
b. ?* Who did you wonder whether the book bothered?
c. * Why$_1$ did you wonder whether the book appealed to Sam t_1?

(Johnson, 1992, ex. 25a, 26a)

d. ?* To whom did you wonder whether the book appealed t_1? (Landau, 2010, ex. 60)

Landau (2010, pp. 29-30) argues that the kind of violation exhibited in PP-extraction in (17d) is as unacceptable as extraction of genuine Experiencer direct objects, which he proposes as proof for his analysis of Experiencers as arguments of null prepositions. Landau offers a syntactic analysis of English ObjExp verbs in which they do not take complement NPs (or DPs) as do canonical transitive verbs, but instead select for PP complements headed by a null preposition (Øψ). As a result, since objects of ObjExp verbs are arguments of null prepositions, extraction from within these null-headed PPs should reveal the same degree of unacceptability as extraction from overt-headed PP complements found with other verbs.[10]

[10] Moreover, Landau (2010, pp. 30-31) analyses some other peculiarities of ObjExp verbs, which are skipped here due to the lack of space in this paper. This is their inability to form synthetic compounds, involving a deverbal head and its object (a god-fearing man, a fun-loving teenager, *a man-frightening god, *a parent-appalling exploit). Another characteristic of ObjExp verbs is their resistance to Heavy NP Shift (HNPS), analogous to the inner object in the double object construction, e.g. * *These things bothered yesterday the man who visited Sally.*/ * *We told these things (yesterday) the man who visited Sally*. While overtly prepositional experiencers, as in *These things appealed yesterday to the man who visited Sally*, are perfectly moveable.

Nonetheless, Grafmiller (2013, pp. 69-71) finds in the web corpora some acceptable examples of shifted Experiencer objects no worse than shifted examples of other kinds of affected objects. However, he leaves the

Furthermore, Landau (2010) faces the controversial question of whether class II verbs have a verbal passive. This is where the subdivision of class II into three groups becomes vital, (i) stative class II verbs (and all class III verbs) generally fail to passivize since they are unaccusative; (ii) agentive eventive class II verbs are normal transitive verbs and therefore universally allow passivization; (iii) non-agentive eventive class II verbs which are not unaccusative, allow pseudopassives, i.e., prepositional passive in which the object of a preposition takes the position of the subject of a clause. However, the verbs with the oblique nature of Experiencers are expected not to passivize unless the language can resort to special strategies, presented in (18) (cf. Landau, 2010, p. 48).

(18) a. P-stranding: The preposition that governs the object is stranded and reanalysed with the verb – only available in languages where [V+P] reanalysis can feed A-movement.
Pseudopassive: $[_{TP}\ [_{DP}\ \text{Exp}]_1\ [_{T'}\ \text{Aux}\ [_{VP}\ [_{V}\ V_{PASS} + \text{Ø}\psi\ ][_{DP}\ t_1\ ]\ ]]]$
b. Pied-Piping: The preposition that governs the object is carried along to the subject position – only available in languages licensing quirky subjects.
Quirky passive: $[_{TP}\ [_{PP}\ \text{Ø}\psi\ [_{DP}\ \text{Exp}]]_1\ [_{T'}\ \text{Aux}\ [_{VP}\ V_{PASS}\ [_{PP}\ t_1\ ]\ ]]]$

English can be classified as a type A language, i.e., allowing pseudopassives, e.g., This armchair was sat in./*Monica can be put my faith in*.

Only non-stative psych verbs passivize, while stative class II verbs do not passivize due to the fact that they lack an external argument.[11] Consequently, the tests to distinguish stative from non-stative class II verbs are important. Landau (2010, p. 49) mentions that in English the progressive form is a standard test for non-statives. In the sentences Landau (2010, p. 49) provides: (i) *The situation is depressing Mary*; (ii) * *Mary is being depressed by the situation*, the verb *depress* is seen as not stative in the active (i) version, since it can appear in the progressive. Nevertheless, its passive form, as in (ii) is stative, and cannot occur in the progressive; even though it is well-known that verbal passivization does not change verbs from stative to non-stative or the other way round. For that reason, as justified by Landau (2010, p. 50), the passive in the sentence (ii) must be adjectival, explaining its stativity (cf. Grimshaw, 1990, p. 114).

On the other hand, class II verbs vary in their stative behaviour, as illustrated in (19).

(19) a. Sue was continually being scared by odd noises.
b. Harry is clearly fearing an outbreak of the flu.
c. * An outbreak of the flu is clearly being feared by Harry.
d. An outbreak of the flu is feared by Harry.

(Pesetsky, 1995, ex. 73a, 75e, 76e, 77e)

Contrasting *depress* (which is strongly stative), the verbs *scare, terrify, shock* and *surprise* reveal an eventive reading both in active and passive, as in (19a). Additionally, as noticed by Landau

case open, concluding that whatever differences in the judgments of these sentences there may be, they are far too subtle to draw strong conclusions about (potentially covert) aspects of their syntactic structure.

[11] Thus, Landau (2010: 49) reduces the generalization in (i) to the one in (ii).
(i) Universally, stative class II verbs do not passivize.
(ii) Universally, stative class II verbs are unaccusative.

(2010, pp. 50-51), English is expected to have eventive verbal psych passives since their verbal status is proven by the fact that these passives in the progressive are incompatible with special idiosyncratic prepositions, as in (20). [12]

(20) a. Bill was enraged by/at totally innocent remarks.
b. Bill was often being enraged by/*at totally innocent remarks.
(Landau, 2010, pp. 57-58)

Landau (2010, p. 57) claims that such idiosyncratic prepositions are a proof of adjectival passives, which are lexically derived; thus (20a) sounds grammatical. On the other hand, these prepositions are disallowed in contexts that force the choice of a verbal passive, like the progressive aspect, given in (20b).

Besides, Landau (2010, pp. 50-51) notes that in order to discern between stative and eventive readings, it is better to use a pseudocleft test, which is less problematic than the progressive test. Pseudo-cleft structures (also called *wh*-clefts), formed with the pronoun *what* (= *the thing(s) that/which*), emphasise an action itself that follows the *what*-clause + *be*. As illustrated in (21a), stative verbs fail the test, whereas eventive class II verbs pass it, as shown in (21b).

(21) a. * What that solution did was *escape*/*elude*/*concern* Mary.
b. What that noise did was *scare*/*surprise*/*startle* Mary.

Interestingly, Landau (2010, p. 51) points out that Pittsburghese dialect of English provides further evidence as for eventiveness, rather than agentivity of verbal psych passives. In her analysis of this dialect, Tenny (1998) explains, on the basis of some contraction that selects for verbal passive participles, that the construction is well-matched to eventive adverbials, progressive aspect and idiom chunk passives, and mismatched with the adjectival *un*-passive, as in (22a-d) respectively.

(22) a. The dog needs scratched hard.
b. The car has been needing washed for a long time now.
c. Tabs need kept on the suspect.
d. * The house needs unpainted.

[12] Analysing further examples, as in (i), Pesetsky adds that some class II verbs do not form passives at all, similarly to class III verbs that never pseudopassivize (31c-e) (cf. Perlmutter & Postal, 1984). These facts make Pesetsky suggest that all these verbs are unaccusative as they do not form passives.

(i) a. * We were escaped by Smith's name.
b. * Panini was eluded by the correct generalization.
c. * Mary wasn't appealed to by the play.
d. * John was mattered to by this.
e. * Mary was occurred to by the same idea. (Pesetsky, 1995, ex. 153b, 154b, 155b, 156b, 157b)

Further evidence for the unaccusativity of *escape* and *elude* comes from the fact that they do not form middles or *–er* nominals (similarly to *concern* and *interest*), as in (ii) (cf. Pesetsky, 1995).

(ii) a. * Great ideas elude/escape/concern/interest easily.
b. * an eluder, *an escaper, *a concerner, *an interested.

Besides, class II passives are commonly recognised in this construction, e.g., *Nobody needs angered/irritated/discouraged/dismayed by the truth*. If this is true, then Pesetsky's view wins over Grimshaw's, and English eventuality of verbal passive over non-stativity in class II verbs is justified. Indeed, the more eventive the verb, the more felicitous verbal passives are, even though Tenny (1998, p. 595) truly notes that "a complex of factors influences the degree of eventiveness, including not only agentivity but also volitionality, punctuality, and the affectedness of change of state in the experiencer. ... Individual speakers vary in how strict they are with this scale in making verbal passives." Consequently, Landau (2010, p. 51), relying on Tenny's (1998) analyses, makes a conclusion that English provides evidence from independent sources for the possibility of verbal passive on non-stativity in class II verbs.

In addition, Verhoeven (2010, pp. 18-19, 42-44) carried out some diagnostic tests for agentivity and stativity, in order to identify semantic properties of particular verbs of different psych-verb classes in five different languages. Especially in those languages which display a grammaticalized expression of the progressive aspect, the verbs were tested within the corresponding constructions. Thus, three standard diagnostic tests that were implemented in this study comprise, first, the VOLITIONALITY TEST, which examines the compatibility of the verb with an adverb denoting the volitional involvement of the actor, e.g., the adverb *intentionally*. Then the IMPERATIVE TEST was to examine whether an order can be expressed by using the imperative form or construction of the verb and provide further evidence for the possibility of an agent to have volitional control over the event. Finally, the STATIVITY TEST was meant to examine whether the verb can be used in a form or context that implies a dynamic internal temporal structure of the event.

In a nutshell, Landau's generalization regarding type A languages that the passive in class II is only found with eventive verbs, while stative verbs are unaccusative, has been shown to be true. Also, Landau's (2010, p. 51) thesis 'the more eventive the verb, the more felicitous verbal passives are' is adequate.[13] Indeed, the picture concerning the passivization of psych-verbs is thus fairly intricate, with unaccusativity and obliqueness of the Experiencer being the two major factors governing the cross-linguistic and mono-linguistic variations.

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[13] Grafmiller (2013, pp. 69-86) confirms that the semantic distinction between the stative (adjectival) and eventive (verbal) uses of the past participle is subtle, and over the years various grammatical diagnostics have been proposed for distinguishing between them syntactically. He cites four criteria for identifying adjectival passives: (i) Use as prenominal modifiers; (ii) Use as the complement of verbs such as *seem*, *look*, *sound*, and *act*; (iii) Prefixation with *un-*; (iv) Modification with the degree adverb *very*. These environments are alike in that they all share the property of selecting adjectives and not verbs. Taken together, the facts all lead to the conclusion that ObjExp verbs, like many other causative verbs, readily form adjectival passives. Besides, Grafmiller (2013, pp. 87-96) claims that at least some ObjExp verbs can form verbal passives. The use in the iterative progressive, the punctual past, and the *needs V-ed* construction all require supposedly eventive interpretations of the predicate, and therefore are diagnostics of verbal passives. Finally, Grafmiller (2013, p. 111 (ex. 3.65a)) proves that any Obj-Exp verb can be used in the progressive passive with an iterative interpretation – even those that are most frequently claimed to denote states, e.g. *bore*, *concern*, *depress* and *worry* (*If you turn on the TV and are continually being bored by the programming, it's likely you have the wrong type of cable package*). Thus, his analysis of corpus data shows that eventive and stative uses are available to all Obj-Exp verbs in both the active and passive, which runs counter to many author's claims (Arad, 1998; Bouchard, 1995; Landau, 2010).

3. Psychological predicates and their phraseological counterparts

3.1. Theoretical background

In Landau's (2010, p. 6) account, Experiencers are regarded as mental locations – locatives, i.e., containers or destinations of mental states or effects. Consequently, Landau makes a claim that (i) all Object Experiencers are oblique (or dative); (ii) Experiencers undergo "locative inversion" (ibid., p. 6). This standpoint is compatible with Jackendoff's (1990, p. 300 n4) decomposition approach in which the relation between an *Experiencer*, and a non-Experiencer argument (called *stimulus*, *trigger of emotion*, *causer* or *target/subject matter*, or *theme*) (Landau, 2010, p. 10), can be presented in terms of a conceptual representation in (23b), roughly read as in (23c).

(23) a. X frightens Y.
b. [CS^{+} ([X]$^{\alpha}$, [INCH [BE ([FEAR ([α])], [AT [Y]])]])]
c. X causes fear of X to come to be in Y.

On the basis of (23), Jackendoff (1990) notices that the mental state itself is somehow extracted from the verb, becoming a co-argument of the Experiencer. The Experiencer itself appears to be the object of a preposition, which locates the mental state within it (cf. Baker (1997) for a similar suggestion, Iwata's (1995) 'reversed' option for the Experiencer to be placed within the mental state). Even though in Jackendoff's (1990) analysis the target of fear equals its cause, Pesetsky (1995) does not find this equation necessary.

Besides, Bouchard (1995, p. 272) treats the mental state as an independent semantic argument, called *psy-chose*, which he also names a *syntactic* argument "...in mental space, the psy-chose is somehow put in contact with the argument it affects." This argument, as a unit able to absorb the emotion or feeling that the psy-chose denotes, stands on its own, as in the periphrastic psych construction, as in (24a), or is represented in the verb, as in standard ObjExp verbs, as in (24b).

(24) a. Cela a éveillé en Pierre une rage terrible.
'That awoke in Pierre a terrible rage'
b. Cela a enragé Pierre.
'That enraged Pierre'

(Bouchard, 1995, p. 275, ex. 35a,c)

Landau (2010, p. 10) further assumes that despite the fact that psych-verbs are decomposed conceptually into an 'action' light verb plus a mental state (psy-chose), this does not imply that this decomposition happens on the syntactic level as well.[14] Instead, the locative preposition is

[14] Landau (2010, p. 137 fn. 2) assures that, actually, some evidence has been provided to justify the claim that periphrastic and synthetic psych constructions have different forms in some semantic aspects that cannot be ascribed as the single factor of incorporation. While in non-agentive contexts, periphrastic forms are telic, synthetic forms are not.
i. The movie horrified / enraged Mary for/*in 15 minutes.
ii. The movie filled Mary with horror / awoke rage in Mary in/*for 15 minutes.

syntactically active no matter if the Experiencer is a bare nominal or not, while syntactic activity happens in the mental state only when it is visible, i.e., in periphrastic constructions.[15]

3.2. The aim of the research

On the ground of these fundamental assumptions of Landau's (2010) localist and decomposition theory of psych-verbs, it is time to open a discussion upon phraseological verbal units which display a psychological condition, providing the overall meaning of the idiom, not only the meaning of its individual items is taken into consideration. The hypothesis I would offer implies that some phraseological units that comprise a verb and PP may be treated as a periphrastic construction related to a certain standard psych-verb, in which the Experiencer is a mental location.[16]

The universal present-day English tends to be more idiomatic, thus, indeed, it seems to be worth paying attention to the role phraseological units play in a language. Undoubtedly, it is difficult to speak or write English without using idioms, especially while describing one's emotional or mental condition. Thus, the purpose of section 3.4 is to collect as many phraseological items as possible, that begin with a verb, and that bear a meaning comparable to psychological predicates. The study aims at providing an answer to the following questions:

Q1. Are there any V + PP idiomatic expressions that can be used instead of common psychological predicates to express one's mental or/and emotional condition?
Q2. Taking Landau's (2010) localist approach as the basic assumption, can we find in those psychological verbal idiomatic units a participant, an *Experiencer*, who is an emotional or mental location?
Q3. Provided the special syntactic behaviour, i.e., psych effects, are typical of Experiencer objects,[17] and are universally only associated with the non-agentive reading in those predicates (Landau, 2010), what is the syntactic status of those ObjExp idiomatic units?

Having set the aims to achieve, let us turn now to establish some working definitions and analyse the relevant data.

Simple N-to-V incorporation does not imply such aspectual shifts.

[15] Bouchard's syntactic decomposition has been adopted by Arad (1998, 2000) as well, but it should not be driven only by semantic aspects.

[16] I thank the anonymous reviewer of this article for his/her suggestion that Lakoff (1987) and Lakoff & Johnson (1980 a, b), among others, additionally motivate the use of idioms as linguistic evidence, when they claim 'transparent' idioms to be motivated by conceptual structures (cf. Keysar & Bly (1999) for a different view).

[17] For the purpose of the paper, the analysis of Subject Experiencer predicates is abandoned, since their psych-effects are not unanimously proven, and the Experiencer in the subject position is not justified as a mental location.

3.3. Working definitions

For the sake of this paper, the working definition of idiomatic expressions is adopted after O'Dell & McCarthy (2010, p. 6), who identify idioms as "fixed combinations of words whose meaning is often difficult to guess the meaning of each individual word." Idioms with their regular or irregular structures, logical and grammatically correct or incorrect forms (Seidl & McMordie, 1978, p. 5) give the unique flavour to the language used in everyday life. Truly, in some cases idiom constituents do not contribute to the overall meaning of the idiomatic phrase, then it should be recognised as a metaphor and a cohesive entity treated as a whole.

Besides, the next crucial definition used in the study, and already introduced in section 2 of the paper, concerns psych-verbs. Thus, at this point, the term is only briefly characterised. Guidi (2011, p. 30), on the basis of well-known approaches represented by Belletti & Rizzi (1988), Pesetsky (1995), and Landau (2010), among others, defines psych-verbs as verbs that express (a change in) mental or/and emotional states and a relation between an Experiencer and the Cause/Theme of such a psychological state. Fábregas & Marín (2015, p. 172) add that verbs which involve mental states but their arguments do not behave in any exceptional way are not true psychological verbs from the syntactic perspective, due to the lack of psych effects.

3.4. Data collection and methodology applied

The research reported here is based on English data collected from English dictionaries of idiomatic expressions, such as (i) Seidl & McMordie's (1978) *English Idioms and How to Use Them* (Fourth Ed.) by Oxford University Press; (ii) *Wielki multimedialny słownik angielsko-polski i polsko-angielski.* [*Great Multimedia English-Polish and Polish-English Dictionary*] (2005) by PWN-Oxford; and (iii) O'Dell & McCarthy's (2010) *English Idioms in Use Advanced* by Cambridge University Press. The first dictionary has been chosen as a reliable source, since this reference book provides information about over 3000 idioms and the context of their usage. The second reference book has been chosen on account of the fact that in its CD-ROM version it contains more than 500 000 English and more than 500 000 Polish units, coming from all varieties of language and it illustrates their typical uses in grammatical constructions. Finally, the third source, i.e. O'Dell & McCarthy's (2010) book, has been chosen as the final filter to check the idioms under scrutiny in the native-like contexts. It presents and practises over 1000 of the most useful and frequent idioms in typical situations, used at an advanced level.

All of these dictionaries have been supported with the *Corpus of Contemporary American English* (COCA) to prove the reliability of the study. Thus, the items found in the dictionary were then checked in terms of the possibility of their occurrence, frequency and context. The corpus displays also the information regarding the source and period of the emergence of an entity. The database of the COCA includes 450 million words from the period 1990-2012, and has a direct link to the *New Wikipedia Corpus*, which gives a quick and easy access to the virtual corpora from the 4.4 million articles in Wikipedia (1.9 billion words), and to *Google Books Corpus*, which covers 189 billion words from British and American English altogether.

The study focuses on instances where a psych meaning occurs within idiomatic expressions that begin with a verb. Such phraseological units, similarly to psych predicates, comprise a

participant, in an object position, who experiences some emotional or mental state, i.e., an *Experiencer*, and a *Stimulus/Causer/Cause* that has just contributed to such a state, as illustrated in (25):

(25) X[18] [frightens / disgusts / encourages, etc.] Y (Object Experiencer (Y))

Accordingly, in line with the localist approach postulated by Landau (2010), the Experiencer is expected to become a location of the psychological condition. The collection of idioms comprises any idiomatic expressions that display a structure V + PP, including phrasal verbs that are listed as idioms in the source dictionaries of idiomatic expressions. Although the goal was to include as many tokens as possible, proverbs and some verbal idiomatic expressions have been omitted due to their vague psychological meaning or/and obvious physical action involved, which makes the experienced mental or emotional state only of a supportive meaning, instead of primary one (e.g., *abandon, argue* collocations). From the semantic point of view, the data includes the idiomatic instances which denote both positive psychological condition (X pleases Y), 'mild' (X upsets Y) ones, until some strong negative emotions can be reached (X frightens Y). The meanings of those units are exemplified in sentences, taken from the Google Corpus. The data with lexical/explicit PPs are provided in (26), while the phrases, in which the preposition is null/implicit are gathered in (27).

(26) **Psychological ObjExp idiomatic phrases with lexical/explicit PPs**

1. X sets X's cap at Y (to attract Y)
   She was never known to *set* her *cap at* any man, and her conversation is always so negligently sensible.
2. X is music to Y's ears (to make Y excited)
   The news of their director's resignation *was music to his ears.*
3. X turns on Y (to get Y engaged, attract Y)
   That sly smile of hers could *turn on* you.
4. X is a slap in the face for Y (to be upsetting for Y)
   Losing the election *was a slap in the face for* the club president.
5. X treads on Y's toes/corns (to upset Y)
   He is very proud of the modern paintings in his house, so don't *tread on his toes* by making funny remarks about them.
6. X bears down on Y (to scare Y)
   You should *bear down on* your students the week before examinations.
7. X gets at Y (to criticise or make fun of Y, or to intimidate Y)
   He's always *getting at* me!
8. X goes on at Y (to scold, bother Y)
   It's too early to *go on at* you about learning lessons from this experience.
9. X is on at Y (to make Y frightened/ under pressure)
   He*'s* always *on at me* about it.
10. X keeps (on) at Y (to make Y frightened/ under pressure)
    He'd *kept on at* her, wanting her to go out with him.

[18] Y is an *Experiencer* and X is a *Stimulus*.

11. X comes down on Y (to frighten Y)
    The boss will *come down on you* like a ton of bricks when he finds out what you've done.
12. X gets on Y's nerves (to irritate Y)
    All this flying around *got on my nerves*. But then I gave the script to Cathy to get her opinion.
13. X gets under Y's skin (to irritate Y)
    Ignore Justin: don't let him *get under* your *skin*.

(27) **Psychological ObjExp idiomatic phrases with null/implicit PPs**

I. X draws Y in (to attract Y)
   Your looks *draw* me *in*, but your personality is what makes me stay.
II. X turns Y on (to attract Y)
   Her intelligence *turns* me *on*.
III. X blows Y's mind (to make Y excited)
   This whole business just *blows* my *mind*.
IV. X goes down a treat [for Y][19] (to make Y excited)
   Not coffee, that imitation stuff tastes awful, but a cup of tea will *go down a treat* [for you].
V. X hits the spot [for Y] (to make Y satisfied because X is something most required)
   That cup of coffee really *hit the spot* [for you].
VI. X carries Y away (to fill Y with emotion / enthusiasm)
   I'm self-conscious but let go of that fast as the river of emotion and sensations *carries* me *away*.
VII. X blows Y away (to surprise or please Y very much)
   The ending will *blow* you *away*.
VIII. X bowls Y over (to greatly astonish Y)
   You must go hear this poet – you will be *bowled over*!
IX. X puts Y up for sth/ to do sth (to encourage Y)
   And he said, "So I should *put* her *up* for adoption."
X. X hits/strikes the right note [on Y] (to have positive effects on Y)
   He saw his remarks had *struck the right note* – his friend was smiling now.
XI. X raises a dust [at/for Y] (to cause a disturbance by something X does or says)
   You may indeed *raise a dust* [for others] with those terms, and so lengthen our dispute to no purpose.
XII. X kicks up a dust [at/for Y] (to cause a disturbance by something X does or says)
   While beginners simply enjoy the ride, advanced boarders *kick up the dust* [for others] at competitions.
XIII. X raises hell/Cain/the devil/the roof [at/in front of Y] (to cause a great uproar or disturbance)
   He said he'd *raise Cain* [for them] if they wouldn't give him a refund.
XIV. X is/seems a wet blanket [for Y] (to trouble, disturb through complaining)
   Oh, Martin! Why do you have to *be* such *a wet blanket* [for them]?
XV. X breaks Y's heart (to make Y sad)
   Don't *break my heart* don't make me frown.
XVI. X eats Y up (to worry Y, make Y nervous)
   Fred will just *eat* you *up*. He is a vicious administrator.

[19] The square brackets introduce a word/phrase added by me, not provided in the dictionary, just to make the meaning of the whole unit clear, and to show the position of an Experiencer. The occurrence of an Experiencer in some idiomatic units is not explicit, it seems to be non-overt/empty, although semantically it is obvious that the Experiencer exists, thus it may be overtly realised.

XVII. X knocks Y for six (to upset Y very much)
The news of his death *knocked me for six*.

XVIII. X lets Y down (to upset Y very much)
I was counting on John to come, but he *let me down*.

XIX. X puts Y's nose out of joint (to upset Y)
Brad had *his nose put out of joint* when he saw that he didn't get top billing on the movie poster.

XX. X reduces Y to tears (to make Y cry/ upset)
I can't remember the number of times he *reduced me to tears*.

XXI. X cuts Y up (to upset Y)
It *cuts me up* to see you sad. And I wish that I could undo what I've done.

XXII. X gets Y down (to depress Y)
When life *gets you down* What you gonna do?

XXIII. X puts Y out (to upset Y)
Did our early arrival *put you out*?

XXIV. X shakes Y up (to upset/ disturb Y)
The assassination of the President *shook me up* terribly.

XXV. X puts Y to shame (to make Y feel ashamed)
She works so hard that she *puts me to shame*.

XXVI. X turns Y's brain (to disturb Y mentally)
What a ghastly sight for the poor woman! I wonder it did not *turn* her *brain* to look on it.

XXVII. X tells Y where to get off (to make Y frightened)
When he called back a third time, I *told* him *where to get off*.

XXVIII. X makes Y's blood boil (to make Y angry)
The thought *made her blood boil* with rage, and she nearly knocked over a pan of hot bacon grease.

XXIX. X rattles Y's cage (to make Y angry)
'I suppose I *rattled your cage* a few times in the beginning.' (…) 'You *rattled* more than *my cage*. You rattled my confidence.'

XXX. X makes Y all hot and bothered (to make Y angry)
I said softly, hating when *he made me all hot and bothered* in public.

XXXI. X gets Y's goat (to make Y angry)
But what *gets* my *goat* is how he plays with the shiv [knife] of racism.

XXXII. X acts up [against / in front of Y] (to cause annoyance)
What do you do when your asthma *acts up*?

XXXIII. X is not Y's bag (to fill Y with disgust)
Thank you for the invitation, but long-distance cycling just *isn't really my bag*.

XXXIV. X gets Y's back up (to annoy Y)
That joke really *got* my boss's *back up*.

XXXV. X drives Y to drink (to cause Y so much annoyance)
Being a Cubs fan is enough to *drive* you *to drink*.

XXXVI. X rubs Y up the wrong way (to irritate Y)
My younger sister *rubs* me *the wrong way*. I find her so annoying!

XXXVII. X sets / puts Y on Y's ear (to make Y furious)
The presence of the movie star *set the* whole town *on* its *ear*.

3.5. The data analysis

Analysing the data, the following answers to the research questions can be given:

A1. Indeed, there are some VP idiomatic expressions that can be used instead of common psych predicates to express one's mental or/and emotional condition

A2. In total, out of 3,000 tokens, 50 psychological verbal idiomatic expressions with an Object Experiencer have been found and presented in two groups. In the first group, in (26), each of the 13 phraseological items comprises an explicit/lexical preposition preceding an Experiencer. The Experiencer seems to become an emotional or mental location of such states as enthusiasm, excitement, disturbance, annoyance, fear, anger, etc., which appears to be compatible with Landau's (2010) localist approach. Since the Experiencer figures within a PP in a substantial number of cases (nearly one third) out of those 50 idioms collected, it seems to be justified to extend the PP-analysis to those cases in which the preposition is not overtly present, as in (27). The other group with covert/empty preposition includes 37 out of the 50 idiomatic units with an Object Experiencer.

A3. As far as the syntactic status of those ObjExp idiomatic units, (28) presents an overview of the 50 collected phraseological items which represent various syntactic patterns, preserving the main structural schema: V + (overt/covert) PP. Thus, the idioms having been scrutinised fall into seven distinct types.

3.5.1. Surface syntax of the distinct patterns of the idiomatic verbal phrases

(28) Syntactic patterns of psych idiomatic V + PP structures, in which an Experiencer is located in a(n) (overt/covert) PP:

a. *Causer/Stimulus* X + V + object + PP with *Experiencer* Y (2 items → 4%)
   e.g., X is <u>a slap in the face for</u> Y (to be upsetting)

b. *Causer/Stimulus* X + V + PP with *Experiencer Y* as a possessor within the prepositional complement
   e.g., X <u>treads on Y's toes</u> (to upset Y) (4 items → 8%)

c. *Causer/Stimulus* X + V + PP with *Experiencer* Y (3 items → 6%)
   e.g., X <u>turns on Y</u> (to get Y engaged, attract Y)

d. *Causer/Stimulus* X + V + particle of phrasal verb + PP with *Experiencer* Y (5 items → 10%)
   e.g., X <u>bears down on Y</u> (to scare Y)

e. *Causer/Stimulus* X + V + PP + non-overt PP with *Experiencer* Y (2 items → 4%)
   e.g., X <u>goes down a treat [for Y]</u> (to make Y excited)

f. *Causer/Stimulus* X + V + object + empty/null PP with *Experiencer* Y (5 items → 10%)
   e.g., X <u>hits the spot [with Y]</u> (to make Y satisfied)

g. *Causer/Stimulus* X + V + never overt PP with *Experiencer* Y (30 items → 60%)
   1. *Experiencer* Y followed by a particle of phrasal verb
      e.g., X <u>draws Y in</u> (to attract Y) (12 items → 24%)
   2. *Experiencer* Y as a possessor within DP
      e.g., X <u>turns Y's brain</u> (to disturb Y mentally) (9 items → 18%)
   3. *Experiencer* Y followed by a fixed PP
      e.g., X <u>knocks Y for six</u> (to upset Y very much) (5 items → 10%)
   4. *Experiencer* Y followed by a fixed clause/ adverbial
      e.g., X <u>drives Y to drink</u> (to cause Y so much annoyance) (5 items → 10%)

The variety of object arguments, recognised in our analysis, is always richer in languages that have a morphological case. Then, the arguments of a predicate must appear with the appropriate case forms (e.g., nominative, accusative, dative, genitive, etc.) imposed on them by the predicate. The 50 units analysed in this study reveal that the verbal phrases are mostly represented by action verbs (45 units → 90%), e.g., *go*, *get*, *turn*, *keep*, *bear*, *come*, *raise*, *tread*, *kick* and *hit*, which are mostly accompanied by a particle as a constituent of a phrasal verb (19 items → 38%, e.g., X bears down on Y 'to scare Y'), an NP object in front of the PP (7 items → *14*%, e.g., X hits the spot [with Y] 'to make Y satisfied'), a VP with the PP (3 items → 6%, e.g., X turns on Y (to get Y engaged, attract Y). In 5 units (→ 10%) the verbal phrase consists of a copular 'be', followed either by a NP object (X is a wet blanket), or by a particle typical of phrasal verbs (X is on at Y).

According to Landau's (2010) localist approach, the Experiencer designates a mental location, thus it is placed within the structure of a PP. This PP may be headed by a lexical P (as in English obliques) or a null P (as in Latin obliques); nevertheless, both cases are structurally distinct from bare DPs (Landau 2010, pp. 21-22). Our data show that the lexical PP with an *Experiencer* as an object appears only in 13 (26%) phraseological units out of the 50, whereas 37 items (74%) include an *Experiencer* Y without an overt preposition.

Furthermore, the Experiencer either in the lexical PP or a null PP is represented in most cases by an NP (37 items → 74%), but in 13 items (→ 26%) it is hidden in the possessive form of the NP within the PP (e.g., X is music to Y's ears 'to make Y excited'). Besides, for some of the phraseological units under scrutiny (7 units → 14%) the Experiencer located within a PP is non-overt/empty, since the meaning of the idiom takes the existence of an Experiencer for granted. Finally, within the V + PP/non-overt PP fixed structure, 1 phraseological unit (→2%) forms a fixed simile/comparison, (X comes down on Y like a ton of bricks 'to reprimand Y severely'), 5 items (10%) are tailed by a fixed clause/adverbial (e.g., X tells Y where to get off 'to make Y frightened').

4. Concluding remarks

In brief, cross-linguistically and within different languages, psych-verbs are classified similarly to the three-way division offered by Belletti & Rizzi (1988). Two attempts have been made in this study, i.e. (1) to present some crucial background concerning psych-verbs, with a focus on Landau's (2010) approach; and (2) to investigate the linguistic inventory of verbal idioms in terms of phrases that represent mental or/and emotional condition, while comparing the results to Landau's (2010) localist perspective.

The set of definitions and classifications of psych-verbs, introduced at the very beginning of the analysis became the key for the discussion conducted afterwards. The main concern here was, however, a group of Object Experiencer verbs and the psych-effects they exhibit. In particular, all the properties attributed to ObjExp verbs exist with the stative reading, the typical *psych* reading, but none of them exists with the agentive one, in which the predicate behaves like a normal transitive agentive predicate. The fundamental thesis of this study has been that Experiencers are locations. In the research section, the V + PP idiomatic expressions, including

the instances with non-overt/Øψ null prepositions, have been examined as regards their psychological connotation.

The results of the study reveal that the phraseological units can be treated as an alternative to traditional psych-verbs (*please, worry, frighten,* etc.) to express one's emotional or/and mental condition. However, in total, out of 3,000 tokens, there are only 50 psychological verbal idiomatic expressions with an Object Experiencer. The data show that a lexical P with the *Experiencer* as an object appears only in 13 (26%) idiomatic expressions out of the 50. Indeed, these may serve as some evidence for Landau's (2010) theory. Nonetheless, much more idioms, i.e. 37 items (74%), include an *Experiencer* preceded with no P. The latter might be treated as exhibiting an oblique Experiencer with a null preposition. However, no relevant syntactic evidence can be found in support the claim that there is a covert P in this type of phrases. Therefore, the use of psychological idioms and the results obtained in this study do not provide enough evidence in favour of Landau's (2010) theory of Experiencers as mental locations, placed either in a covert or overt PP.

Nevertheless, psych predicates and their idiomatic counterparts invite further investigation, concerning both the source of their unusual behaviour (mainly from the syntactic point of view), and quantitative research (different corpus-based and / or corpus-driven studies).

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Little pro's, but how many of them? – On 3SG null pronominals in Hungarian

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Abstract

While Hungarian 3SG[1] individual reference null pronominals are in free variation with their lexical counterparts, 3SG generic reference null pronominals do not show such variation. This follows from the fact that Hungarian 3SG generic null pronominals behave like bound variables, i.e. they always require a 3SG generic lexical antecedent in an adjacent clause. Both the 3SG generic lexical antecedent and the 3SG generic null pronominal must be in the scope of the GN operator, which is seated in SpeechActParticipantPhrase (SAPP), the leftmost functional projection of the left periphery in the sentence (see Alexiadou & D'Alessandro, 2003; Bianchi, 2006). GN binds all occurrences of the generic variable in accessible worlds (see Moltmann 2006 for English *one*/*oneself*). These properties distinguish Hungarian from the four major types of Null Subject Languages identified by Roberts & Holmberg (2010).

Keywords: null pronominal, generic, bound variable

1. Hungarian as a Null Subject Language

Hungarian has all the properties of so-called Null Subject Languages (Jaeggli & Safir, 1989; Egerland & Sigurðsson, 2009; Roberts & Holmberg, 2010). It allows expletive null subjects in meteorological sentences, individual reference null subjects as well as generic reference null subjects, and any other null arguments in active finite sentences:

[1] Abbreviations: ACC – accusative case; ASPP – Aspect Phrase; COMP – complementizer; COP – copula; [D] – referentiality feature; DAT – dative case; EXPL – expletive pronoun; FORM – formalis case 'in a given form'; GN – generic operator; IMP – imperative mood; IMPFV – imperfective aspect; INESS – inessive case ('in'); PAST – past tense; PERF – perfective aspect; PFX – prefix; PHI – person/number agreement features; POSS – possessive marker; PRES – present tense; PRT – particle; PRTC – participle; RFL – reflexive marker; REFL – reflexive pronoun; SAPP – SpeechActParticipant Phrase; SBJ – subjunctive mood; TERM – terminalis case ('until'); TOP – topic marker; TOPP – Topic Phrase; 3SG – third person singular; 3PL – third person plural; ∃ – existential operator.

Expletive null subject

(1) Már hajnal-od-ott pro_{EXPL}, amikor el-alud-tak$_k$ a gyerekek.
already dawn-RFL-PAST3SG EXPL when PFX-SLEEP-PAST3PL the children
'It was already beginning to dawn when the children fell asleep.'

Referential null subject

(2) Vera$_i$ fél-t, [hogy $pro_{i/j}$ le-kés-i a film-et].
Vera fear-PAST3SG that (s/he) PFX-MISS-PRES3SG the movie-ACC
'Vera$_i$ feared that she$_{i/j}$ (herself or someone else) would miss the movie.'

Generic inclusive null subject

(3) Ha az ember$_{GN}$ iszik, pro_{GN} nem vezet.
if the man drinks (the man) not drives
'If one drinks, one does not drive.'

(4) Itt nem beszél-nek pro_{arb} magyar-ul.
here not speak-PRES3PL (people) Hungarian-FORM
'People do not speak Hungarian here.'[2]

Other null arguments

(5) Amikor meg-érkezel *pro* azonnal hívd fel *pro*.
When PFX-arrive (you) at once call-IMP2SG PFX (him)
'When you arrive, call him up at once.'

Despite these properties, Hungarian differs from the four major types of Null Subject Languages (NSLs) established by Roberts & Holmberg (2010) in crucial ways. First, while 3SG individual reference null pronominals are in free variation with their lexical counterparts, no such variation is found with 3SG generic reference null pronominals. Second, the 3SG generic reference null pronominal functions as a variable, which must be coreferential with a 3SG generic lexical antecedent in an adjacent clause, while 3SG individual reference null pronominals function quite well without any lexical antecedent. Third, 3SG generic inclusive null pronominals show no scope interaction with quantifiers, as they must be in the scope of GN, which always take widest scope. These properties will be discussed in the rest of the paper.

This paper is organized as follows. Section 1.1 describes the syntactic and semantic properties of 3SG null pronominals with the generic inclusive interpretation and the way they differ from 3SG null pronominals with the individual reference interpretation in Hungarian. Section 1.2 explains how 3SG generic inclusive are distinguished from 3PL generic exclusive

[2] Existentially quantified NPs can take scope over 3PL generic exclusive NPs. This indicates the quantificational properties of 3PL generic exclusive NPs. 3SG generic inclusive NPs, on the other hand, show no similar scope interaction, as GN always takes widest scope (see Moltmann, 2006):

(i) *Az emberek* néha furcsa e-mail üzeneteket kapnak. (= Some x's are such that….) ∃>GN
'Sometimes people receive strange e-mail messages.'

(ii) *Az ember* néha furcsa e-mail üzeneteket kap. (≠ Some x is such that…) *∃>GN
'Sometimes one receives strange e-mail messages.'

On 3PL generic exclusive null pronominals in Hungarian see (Tóth, 2011). On the semantic differences between Hungarian 3SG generic inclusive vs. 3PL generic exclusive null arguments see Dalmi (2013; 2014).

null pronominals with respect to their scope interaction options and binding requirements. Part 2 discusses a recent typology of Null Subject Languages (NSLs) given by Roberts & Holmberg (2010) and explains that Hungarian does not fit in any of the four major types of NSLs as far as 3SG generic inclusive null pronominals are concerned. Part 3 introduces Harley & Ritter's (2002) feature geometric account of pronominals and Alexiadou & D'Alessandro's (2003) proposal to include impersonal SI in Italian in that system. Finally, it explains why Hungarian 3SG generic inclusive null pronominals do not require a feature geometric approach and proposes to give merely a feature composition of such pronominals.

1.1. 3SG generic inclusive pro vs. 3SG individual reference pro in Hungarian

The general consensus concerning Hungarian 3SG individual reference null pronominals is that they are in free variation with their lexical counterparts (É. Kiss, 1987; 2002; Kenesei, 1989):[3]

(6) Péter nem 0 biztos abban, hogy ő/*pro* átmegy a vizsgán.
Peter not COP sure in_it that he/(he) through_go.3SG the exam-on
'Peter is not sure that he/*pro* will pass the exam.'

(7) Ő/*pro* nem 0 biztos abban, hogy ő/*pro* átmegy a vizsgá-n.
he/(he) not COP sure in_it that he/(he) through_go.3SG the exam-on
'He is not sure that he/*pro* will pass the exam.'

The 3SG generic reference null pronominal, pro_{GN}, differs from 3SG individual reference *pro* inasmuch as it shows the properties of bound variables (see Moltmann, 2006 on English *one*/*oneself* and Kratzer, 2000 on German *man*). Unlike the 3SG individual reference *pro*, this type of 3SG null pronominal must be bound by the 3SG lexical antecedent *az ember* 'the man_{GN}', (8); it does not alternate with the 3SG individual reference pronominal (lexical or null), (9); it cannot be bound by the 3SG individual reference pronominal, whether this pronominal bears structural or inherent case, (10)-(11). Notice that unlike the 3SG individual reference null pronominal, the 3SG generic reference null pronominal always involves the speaker, hence it is 1st person-oriented, (8)-(11):

(8) Az $ember_{GN}$ nem tudja, mennyit kell pro_{GN} / *ő-neki / **pro*
the man not knows how much must (the man-DAT) / he-DAT / (he-DAT)
a nyugdíj-ig dolgoz-ni-a.
the retirement- TERM work-INF-3SG
'One does not know how much one/*he/(*he) must work till retirement.'

(9) *Az* $ember_{GN}$ nem 0 biztos abban, hogy *ő / **pro* / pro_{GN} át-megy a vizsgá-n.
the man not COP sure in_it that he/ (he) / (the man) through-go.3SG the exam-on
'One is not sure that one / *he will pass the exam.'

[3] In present indicative copular sentences, the 3SG and 3PL copula is morphologically zero, except with locative complements (see Dalmi, 2010; 2016).

(10) *Ő/**pro* nem 0 biztos abban, hogy *az ember*$_{GN}$ / *pro*$_{GN}$ átmegy a vizsgá-n.
He/(he) not COP sure in_it that the man / (the man) through_go.3SG the exam-on
'He is not sure that one will pass the exam.'

(11) Ha az ember$_{GN}$ sejtené, mennyi megpróbáltatás vár
if the man guess-COND3SG how many adversities wait
pro$_{GN}$ rá / *ő-rá a házépítés során, *pro*$_{GN}$ /*ő /**pro* el sem kezdené.
(one) on / he-on the housebuilding during (one) / he /(he) PFX not even start-COND3SG
'If one could guess how many adversities are awaiting one in the course of building a house, one would not even start.'

As the examples in (8)-(11) show, 3SG *pro*$_{GN}$ clearly differs from 3SG *pro* in its distribution, binding requirements, and semantic interpretation:

(12) The properties of 3SG *pro*$_{GN}$
(i) It requires the 3SG lexical antecedent *az ember* 'the man'.
(ii) It does not alternate with 3SG lexical, individual reference pronominals.
(iii) The 3SG lexical antecedent *az ember* 'the man' cannot have individual reference.
(iv) It is 1st person-oriented, i.e. it includes the speaker.

These properties justify isolating 3SG generic reference *pro*$_{GN}$ from 3SG individual reference *pro*. The semantic properties of 3SG generic inclusive *pro*$_{GN}$ also distinguish it from 3PL generic exclusive *pro*. This will be shown in the next subsection.

1.2. The semantic properties of 3SG generic inclusive vs. 3PL generic exclusive null pronominals

Cinque (1988) notes that impersonal SI in Italian has quantificational properties. Yet, his examples mostly involve the generic exclusive 3PL use of SI:

(13) Qui SI fanno in quattro per aiuatere.
here (they) do in all to help
'Here they do their utmost to help.'

It is important to segregate the 3PL generic exclusive reading of impersonal SI from the 3SG generic inclusive reading (see Roberts & Holmberg, 2010 for a recent typology of Null Subject Languages, NSLs). As Moltmann (2006) points out, 3PL generic exclusive *people* in English shows scope interaction with quantifiers but 3SG generic inclusive *one* never does:

(14) *People* often wear fashionable clothes at parties. OFTEN > MOST or MOST > OFTEN
(15) *One* often wears fashionable clothes at parties. GN > OFTEN but *OFTEN > GN

While (14) can be interpreted as "there are many x's, such that…." Such interpretation is not available for (15). The two lexical items also differ pragmatically:

(16) You can't imagine how much one suffers during cosmetic surgery!

(17) You can't imagine how much people suffer during cosmetic surgery.

Generic inclusive *one* in (16) conveys the speaker's intention to arouse sympathy in the addressee, while (17) with generic exclusive *people* is merely a statement of the fact.

The existentially quantified DP in (18) does not c-command the 3SG pronominal, and therefore it cannot serve as an antecedent for it. This leads to a Weak Cross-Over (WCO) effect. In (19), on the other hand, GN takes scope over all occurrences of *one* and no Weak Cross-Over effect shows up:

WEAK CROSS-OVER EFFECT

(18) **Someone*$_i$'s mother always gives *him*$_i$ a birthday present.

(19) *One's mother* always gives *one* a birthday present.

A similar scenario is found in Hungarian:

WCO-EFFECT

(20) ??∃[*Valaki-nek*$_i$. mindig ad-0 ajándék-ot az *pro*$_i$ any-ja [$_{DP}$ t$_i$]].
someone-DAT always give-PRES3SG present-ACC the s/he.NOM mother-POSS3SG
'His$_i$ *mother* always gives *someone*$_i$ a present.'

NO WCO-EFFECT

(21) [$_{SAPP}$ GN [$_{TOPP}$ *Az* *ember-nek*$_{gen}$ mindig ad ajándék-ot
the man-DAT always give.PRES3SG present-ACC
az [$_{DP}$ *pro*$_{gn}$ any-ja].
the (the man.NOM) mother-POSS3SG
'*One's mother* always gives a present to *one*.'

GN in Moltmann's (2006) sense is a group-inducing, first person-oriented modal operator that binds generic inclusive *one* in accessible worlds. GN does not enter into scope interaction with quantifiers. Furthermore, GN always has widest scope. This verifies its operator status.[4]

Tóth (2011) also discusses the quantificational properties of the Hungarian 3PL generic exclusive *az emberek* 'the people' and its interaction with quantificational adverbials like *általában* 'generally', *rendszerint* 'usually'. This behaviour follows from the fact that 3PL generic exclusive *az emberek* 'the people' (and its null counterpart) is bound by a quantifier like MOST: most x's are such that…:

(22) A középkor-ban általában az emberek féltek a villámlás-tól.
the Middle Ages-INESS generally the people feared the lightning-from
'In the Middles Ages, people generally feared lightning.'

(23) A középkor-ban általában féltek *pro* a villámlás-tól.
the Middle Ages-INESS generally feared (the people) the lightning-from
'In the Middle Ages, people generally feared lightning.'
(Most x's in the Middle Ages were such that they feared lightning.)

[4] As most modal operators, GN takes scope over the whole sentence. It sits in the leftmost functional projection of the periphery, SAPP, in the sentences, to ensure that it has widest scope.

3SG generic inclusive *az ember* 'the man' and its null pronominal counterpart, on the other hand, do not show any scope interaction, as they must both be in the scope of the GN operator, which takes scope over the whole sentence:

(24) Ha az ember$_{GN}$ munkanélkülivé válik, gyakran éhezik *pro*$_{GN}$.
when the man unemployed becomes often starves (the man)
'When one becomes unemployed, one often starves.'
(≠Most x's are such that when they become unemployed, they starve.)

Cross-linguistic studies on pronominals mostly discuss individual reference null pronominals, expletive null pronominals but not generic reference ones. By studying the properties of 3SG generic reference pronominals across languages, a more fine-grained typology of Null Subject Languages can be provided. In Consistent NSLs, 3SG generic inclusive pronouns must always be lexical, whereas 3SG individual reference pronouns can be freely dropped. Partial NSLs, by contrast, require 3SG individual reference pronouns to be overt but 3SG generic reference pronouns to be null. Holmberg (2005; 2010) explains these facts in terms of parametric variation across languages. Wherever the T_0 head has a [+D] feature, the 3SG pronominal does not spell out. In Italian sentences with the 3SG generic inclusive interpretation, the T_0 head has a [-D] feature, which forces the 3SG generic pronominal to be overt.

2. A cross-linguistic outlook on null arguments

Roberts & Holmberg (2010) establish a typology of Null Subject Languages (NSLs), based on the kinds of null subject such languages allow:

(25) Type 1 Expletive Null Subject Languages (German, Dutch, Afrikaans)
Type 2 Partial Null Subject Languages (Finnish, Russian, Brazilian Portuguese)
Type 3 Consistent Null Subject Languages (Italian, Polish, European Portuguese)
Type 4 Radical Null Subject Languages (Chinese, Indonesian, Thai)

Holmberg (2005; 2010) observes the following correlation between 3SG referential vs. 3SG generic null subjects in Type 2 Partial NSLs and Type 3 Consistent NSLs:

(26) Partial NSLs: 3SG referential subjects must not be null;
3SG generic subjects must always be null;

(27) Consistent NSLs: 3SG referential subjects can be freely dropped;
3SG generic subjects must not be null.

Partial NSLs: 3SG referential lexical subject

(28) Hän /**pro* istuu mukavasti tässä.
he /**he* sits comfortably here
'He sits comfortably here.'

Partial NSLs: 3SG generic null subject

(29) Tässä *pro*$_{GN/*i}$ istuu mukavasti.
there one /*he sits comfortably
'One can sit comfortably here.' (Finnish, Holmberg 2010)

Consistent NSLs: 3SG referential null subject

(30) *pro* Ha telefonato.
PERF3SG telephone.PTCP
'He has telephoned.' (Italian, Rizzi 1982)

Consistent NSLs : 3SG generic lexical subject

(31) Se si è morti, non ci si muove piu.
if one COP dead not RFL one move anymore
'If one is dead, one does not move anymore.'

(32) *Se *pro*$_{GN}$ è morti, non ci pro$_{GN}$ muove piu.
if one COP dead not RFL one move anymore
'If one is dead, one does not move anymore.'
(Italian, Alexiadou & D'Alessandro, 2003)

These correlations can also be observed in two different varieties of the same language, i.e. European Portuguese and Brazilian Portuguese. While Brazilian Portuguese (BP) 3SG generic subjects comply with the Partial NSL requirement, European Portuguese (EP) generic subjects behave like those in Consistent NSLs (Holmberg & Sheehan, 2010):

(33) É assim que ***pro*** / **se* faz o doce.
is thus that (one) / one makes the sweet
'This is how one makes sweets.'
(Brazilian Portuguese, Holmberg & Sheehan, 2010)

(34) É assim que **pro* / ***se*** faz o doce.
is thus that (one) / one makes the sweet
'This is how one makes sweets.'
(European Portuguese, Holmberg & Sheehan, 2010)

Radical NSLs allow variation in the generic vs. individual reference interpretations of 3SG null pronominals. This is not found in any other type of NSLs:

(35) Ah John$_i$ waa hai jingwok *pro*$_i$ / *pro*$_{GN}$ jiu gong jingman.
PRT John say in England he / one need speak English
'John$_i$ says that in England *he$_i$/one* needs to speak English.'
(Cantonese Chinese, Holmberg & Sheehan, 2010)

(36) John$_i$-wa kono beddo-de-wa yoku nemu-reru-to *pro$_i$* /*pro*$_{GN}$ iu.
John-TOP this bed-in-TOP well sleep-can-COMP (he / one) say
'John$_i$ says that *he$_i$*/*one* can sleep well in this bed.'

(Japanese, Holmberg & Sheehan, 2010)

Although Hungarian is unquestionably a Null Subject Language (NSL), it does not perfectly match any of these major types of NLSs, as far as the properties of 3SG generic inclusive arguments are concerned. In several respects, it patterns with Icelandic, which is renowned as a non-Null Subject Language. In Icelandic, 3SG generic inclusive subjects are expressed lexically, by *maður* 'the man'. Yet, in certain contexts, a 3SG generic inclusive null pronominal can also show up:

(37) Ef maður tapar, thá er maður úr leik.
if one/I loses then is one/I out
'If one loses, one is out.'
'If I lose, I am out.'

(Icelandic, Jónsson, 1992)

(38) [$_{ForceP}$[$_{SAPP}$ GN [$_{TOPP}$ Í Feneyjum ferðast [$_{TP}$ *maður*$_{GN}$ yfirleitt [$_{VP}$ á báti]]]].
in Venice travels one generally on boat
'In Venice, one generally travels by boat.'

(39) *Maður* var óheppinn í gær.
man-the was lucky yesterday
'I was lucky yesterday.'

(40) Á tunglinu væri ferðast *pro*$_{GN}$ a báti.
on moon.the be.SBJ travel.PRTC on boat
'On the moon, *one* would travel by boat.'

(Icelandic, Egerland & Sigurðsson, 2009)

Variation between the 3SG generic vs. 1SG individual interpretations of *maður* 'the man' is contextually determined. The 3SG generic inclusive interpretation of the null pronominal in (37) is licensed by the non-veridical operator.

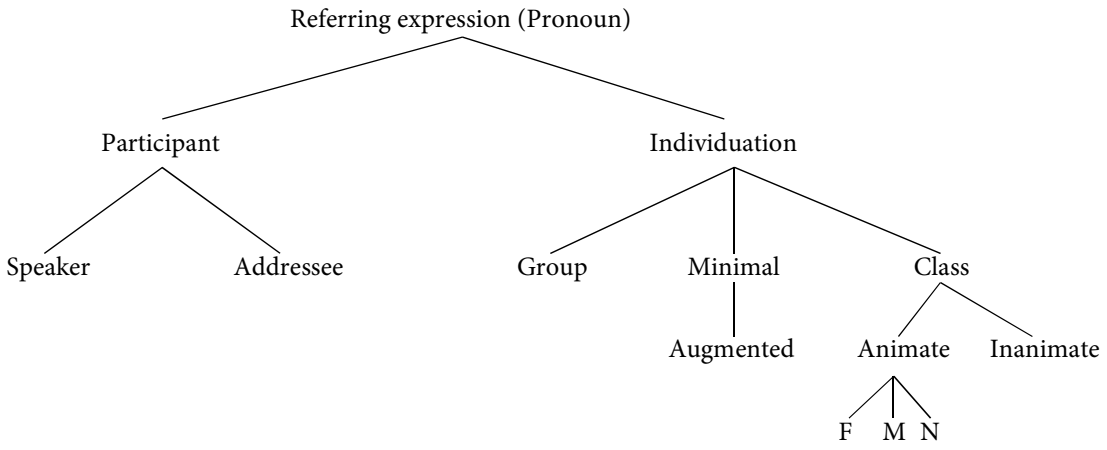
It is worth noting that in (37), generic inclusive *maður* must be repeated in the matrix clause, just as English *one* or German *man* (see Moltmann, 2006 and Kratzer, 1996, respectively). This is not the case in Hungarian, where it is the first occurrence of 3SG generic inclusive arguments that must always be lexical but the other occurrences must be null, irrespective of whether they appear in matrix or subordinate clauses, i.e. precedence is crucial but dominance is not. This fundamentally distinguishes Hungarian from all the four major types of NSLs.

3. The feature geometric approach to pronominals

3.1. Harley & Ritter (2002)

Harley & Ritter (2002) adopt Noyer's (1992; 1997) *Universal Feature Hierarchy (UFH)*, and propose a system of pronominals in which pronouns are built up of geometrically arranged feature bundles, including pragmatic features such as speaker and addressee, as well as morphological features like person and gender:

(41)

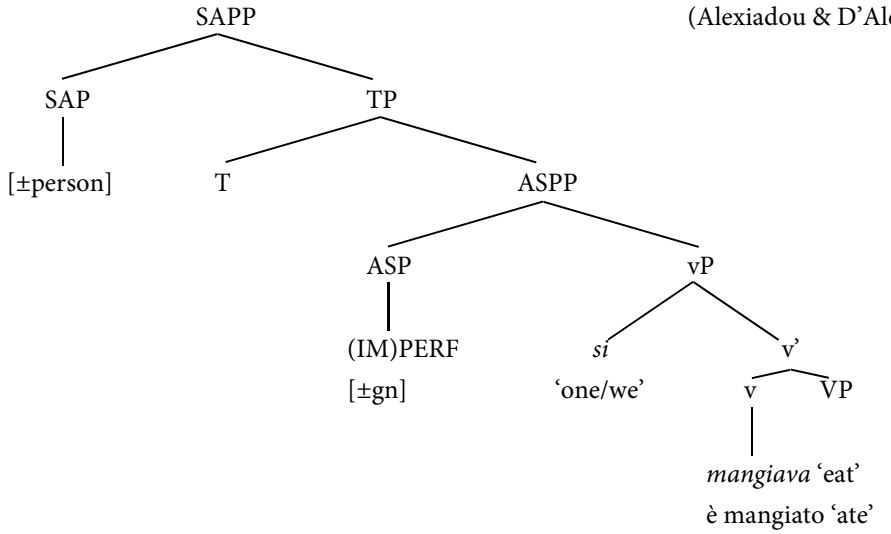


While this system provides sufficient room for cross-linguistic variation among individual reference pronominals, it does not have much to offer for generic ones.

3.2. Alexiadou & D'Alessandro (2003)

Alexiadou & D'Alessandro (2003) provide a feature-geometric account of impersonal generic SI in Italian. Their system draws heavily on Harley & Ritter's (2002) feature geometry and takes 3rd person pronouns to be unspecified for person/number features (i.e. they are neither speakers nor addressees). Thus, impersonal SI in Italian is claimed to have no person/number features at all in their system. This explains the variation between the 3SG generic vs. the 1PL individual reference readings of impersonal SI. They derive this variation from the presence or absence of the [±gn] feature in ASPP. They introduce the SAPP (SpeechActParticipant Phrase) functional projection, which stores 1st and 2nd person features in their account. The absence of SAPP yields the 3rd person individual reference reading:

(42) (Alexiadou & D'Alessandro, 2003, p. 41)



(43) In quell ristorante SI mangiava bene.
in that restaurant SI eats well
'In that restaurant one can eat well.'

(44) In quell ristorante SI è mangiato bene.
in that restaurant SI is eaten well
'In that restaurant we ate well.'

A similar picture is found in Polish, where the generic vs. individual reference interpretation of the impersonal pronoun SIĘ largely depends on the aspectual form of the verb:

(45) W Krakowie sprzedawało się dużo kwiatòw.
in Krakow sell.IMPFV.PAST REFL a lot flowers
'In Krakow one used to sell a lot of flowers.' (habitual past)

(46) W Krakowie sprzedało się dużo kwiatòw.
in Krakow sell.PERF.PAST REFL a lot flowers
'In Krakow we sold a lot of flowers.' (actual past)

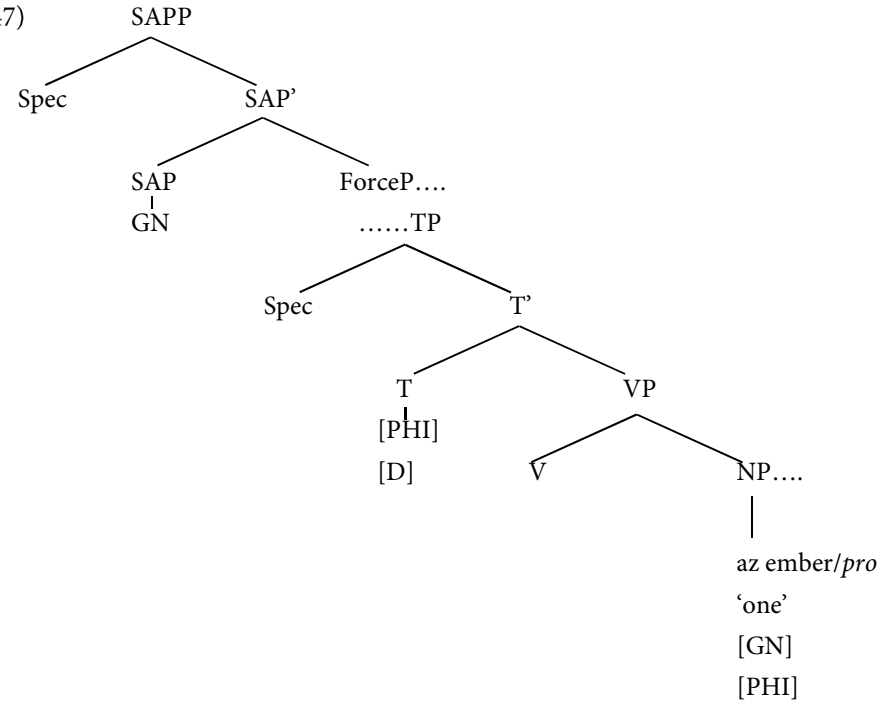
(Polish, Krzek, 2012)

This suggests that Alexiadou & D'Alessandro's (2003) model works fine for NSLs in which generic interpretation correlates with aspect. But what about languages that lack this correlation? We have seen that Icelandic, a non-NSL, has variation in the interpretation of *maður* 'the man', however this variation does not hinge on aspect. Hungarian patterns with Icelandic in this respect, and calls for a non-feature geometric analysis.

4. The feature composition of the 3SG generic null pronominal in Hungarian[5]

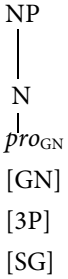
Hungarian is a NSL, in which variation between the generic vs. individual reference interpretations of 3SG null pronominals is not conditional on the aspectual properties of the verb. These interpretive differences can be reduced to the presence or absence of the [GN] feature, licensed by the GN operator in SAPP, the leftmost functional projection of the left periphery of the whoel ssentence. 3SG vs. 3PL agreement on the verb clearly indicates that generic inclusive and generic exclusive null pronominals are specified for person/number features in this language. The locus of licensing these features in the clause is the TP projection.[6] (As opposed to Finnish, Hungarian imposes no obligation on 3SG individual reference subjects to be lexical, i.e. they can be freely dropped.):

(47)

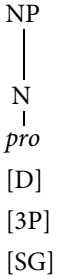


The feature composition of 3SG generic null pro_{GN} vs. 3SG individual reference *pro* is given in (48a) and (48b), respectively. These features are licensed in the clausal architecture given in (47) via Cyclic Agree (Bèjar & Rezac, 2009).

(48) a.



b.



[5] See Bródy (2011) on the generic uses of 1PL, 2SG and other pronouns.

[6] On splitting the TP further into PersonP and NumP, see Bianchi (2006) and Sigurðsson (2004).

The differentiated feature specification of individual reference vs. generic reference pronominals enables us to place Hungarian in its proper place among Null Subject Languages (NSLs). Given that 3SG vs. 3PL generic null pronominals have turned out to be crucial in the cross-linguistic study of null arguments (see Holmberg & Phimsawat, 2013), the present study is an important contribution to a more fine-grained picture of null arguments, in general, and in this way, to the typology of Null Subject Languages.

5. Summary

The present proposal derives the generic vs. individual reference interpretations of pronominals (lexical or null) from the presence or absence of the [GN] feature in the feature composition of the pronominal. The [GN] feature is licensed by the GN operator in SAPP cross-linguistically. The Person and Number features are licensed in TP in the standard way. The [+D] feature is licensed by the T head.

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Political discourse as practical reasoning: A case study of a British Prime Minister candidate speech

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Abstract

The paper outlines the method of political discourse analysis proposed by I. Fairclough & N. Fairclough (2012), who point to argumentative and deliberative nature of political discourse as practical reasoning that aims to decide a problem-solving action in a given situation. The novelty of this approach is explained through references to its established alternatives as focused on representation and power relations. The above mentioned method is applied to the British PM campaign candidacy speech by Andrea Leadsom to test how it works in the case of this type of political discourse which is different from the one originally examined. On this occasion, the meaning of the term 'discourse' is illustrated through the practical necessity of involving in the analyses the extra-linguistic and intertextual context.

Keywords: discourse, politics, deliberation, argumentation, Fairclough

1. The Notion of Discourse

It is not easy to determine the meaning of the term *discourse* in comparison to *text*, especially as there is a plethora of academic works with *discourse* in the title that actually offer analyses of selected texts. The decisive point is that the respective texts are then not being examined in isolation but always in context (both extra-linguistic and intertextual), as materialization and manifestation of a certain discourse. This, at least, can be derived from some relevant descriptions of *discourse*. I intentionally say 'descriptions', rather than 'definitions' since the attempts to explain the notion seem to capture some of its aspects, without being precise enough to pass for a definition. Some examples will be discussed below.

Purvis & Hunt (1993) qualify discourse as a platform of interaction, where the awareness of socially relevant issues are created, promoted and maintained:

> 'discourse' has gained much significance linguistically in modern social theory 'by providing a term with which to grasp the way in which language and other forms of social semiotics not merely convey social experience but play some major part in constituting social objects (the subjectivities and their associated identities), their relations and the field in which they exist'. (p. 474)

As representatives of Critical Discourse Studies (CDS)[1], Fairclough and Wodak (1997) point to the implications and social consequences of discourse, especially to the relation between the latter and power:

> CDS see discourse – language use in speech and writing – as a form of 'social practice'. Describing discourse as social practice implies a dialectical relationship between a particular discursive event and the situation(s), institution(s) and social structure(s), which frame it: The discursive event is shaped by them, but it also shapes them. That is, discourse is socially constitutive as well as socially conditioned – it constitutes situations, objects of knowledge, and the social identities of and relationships between people and groups of people. It is constitutive both in the sense that it helps to sustain and reproduce the social status quo, and in the sense that it contributes to transforming it. Since discourse is so socially consequential, it gives rise to important issues of power. Discursive practices may have major ideological effects – that is, they can help produce and reproduce unequal power relations between (for instance) social classes, women and men, and ethnic/cultural majorities and minorities through the ways in which they represent things and position people. (p. 258)

Chilton (2004, p. 4) puts discourse in connection with institutions and points to the essential correspondence between the latter and the former. However, a hesitation occurs when it comes to a clear distinction between discourse and text:

> What is strikingly absent from conventional studies of politics is attention to the fact that the micro-level behaviours (…) are actually kinds of linguistic action – that is, discourse. Equally, the macro-level institutions are types of discourse with specific characteristics – for example, parliamentary debates, broadcast interviews. And constitutions and laws are also discourse – written *discourse, or text*, of a highly specific type. (p. 4, emphasis added)

A distinction between discourse and text is attempted by Lemke (1995):

> When I speak about discourse in general, I will usually mean the social activity of making meanings with language and other symbolic systems in some particular kind of situation or setting… On each occasion when a particular meaning characteristic of these discourses is being made, a specific *text* is produced. Discourses, as social actions more or less governed by social habits, produce texts that will in some ways be alike in their meanings… When we want to focus on the specifics of an event or occasion, we speak of the text; when we want to

[1] The name was introduced by van Dijk (2009, p. 62), to cover research into discourse and replace the previous label of the latter, namely Critical Discourse Analysis (CDA) in order to avoid its wrong understanding as a *method*.

> look at patterns, commonality, relationships that embrace different texts and occasions, we can speak of discourses. (p.7)

The above description defines discourse as a generic abstract entity, whilst text is understood as its manifestation and concretization. In this study, discourse is understood as the totality of texts produced in a particular field, within a certain period of time that are linked by a comprehensible criterion like topic, occasion or person. Therefore, an individual text should be considered as a contribution to and an element of the super-ordinated discourse that is sustained by existing and incoming texts. Consequently, it is justified to recognize an analysis of a single text as discourse analysis, as long as the analysis is linked to its intertextual and situational context.

2. The Essence of Political Discourse

In order to delimitate *political* discourse, the notion of politics is usually scrutinized, with the aim to narrow the pool of text producers and/or text production circumstances to be taken into account or ignored in research. The field of politics can be understood quite restrictively, so that it covers solely the activities of professional politicians, or very flexibly, so that it includes ventures of ordinary citizens. Accordingly, political discourse will be comprehended in a narrow or a broad sense, as a set of utterances by politicians only or all possible speakers/writers respectively. In the words of van Dijk (1997, p. 13),

> as actors and authors of political discourse and other political practices, politicians are not the only participants in the domain of politics. From the interactional point of view of discourse analysis, we therefore should also include the various recipients in political communicative events, such as the public, the people, citizens, the 'masses', and other groups or categories.

The British prime minister's candidate speech that will be presented below belongs to the core of political discourse with no doubt: It can be found as such in the established typology by Reisigl & Wodak (2001, p. 91), where "a speech in election campaign" is listed as "a genre in the field of politics." Therefore, it is not necessary to discuss the selection of the material to be analyzed here. But for the comprehension of the concept of political discourse by Fairclough & Fairclough it is crucial to understand their view of politics, in contrast to its more established comprehension in relation to power. The scholars maintain that "in politics they primarily engage in argumentation, and particularly in practical argumentation, including deliberation" (2012, p. 4), which differs from the approaches that see it primarily in relation to power. In their opinion,

> [p]olitics is about arriving cooperatively and through some form of (collective) argumentation (deliberation) at decisions on actions on matters of common concern, it is about what to do in response to public disagreement and conflict (e.g. over such issues as the distribution of scarce social goods) and in response to circumstances and events. (*ibidem*, p. 34)

As mentioned above, politics is often defined in connection to power, in terms of executing it, desiring it, fighting for it etc. In the consequence, the constituent of political discourse as such, namely a political text, is necessarily related to power, too, either as its reinforcement or challenge. For example, van Dijk (2001, p. 359) speaks of "the role of political discourse in the enactment, reproduction and legitimation of power and domination". The structures of a political text serve the purpose of manipulation through selected techniques, like categorization, self-glorification, populism, consensus, number game or victimization (van Dijk 2006, pp. 735-739)[2]. They are uncovered, examined and described within Critical Discourse Studies.

As pointed out by Wodak & Mayer (2001, p. 9), "[t]ypically CDS researchers are interested in the way discourse (re)produces social domination, that is mainly understood as power abuse of one group over others, and how dominated groups may discursively resist such abuse", which confirms the power-connected view of politics.

As illustrated by van Dijk's in his well-known ideological square (2006, p. 734), the typical (or universal) manipulation strategies in the political discourse are the "self positive-representation" and "other negative-representation" that the text producers use in order to magnify what is favorable to them (their own achievements and strong points, the opponent's mistakes and weaknesses) and play down what is inconvenient (the opponent's achievements and strong points, the own mistakes and weak points). Therefore, it is understandable that, in research, close attention is paid to *representation* as the way the text producers *present* reality, according to their own views, ideologies and purposes. For example, in his parallel analyses of the speeches by US president Bush on the one hand and Osama bin Laden on the other hand, both held in response to the terrorist attack the World Trade Center on 11.09.2001, Chilton (2004) reveals very similar features in the both texts that offer radically different representations of facts, each of them in a manner that favors the respective speaker's needs (pp. 173-193). The focus is on the way in which the orators depict the situation in order to prove the own righteousness and the opponent's evilness.

To sum up: In the traditional approach, political discourse is seen in a strong connection to power as the essence of politics. It is examined, in the first place, for representation of reality that includes intended manipulative twists that should be revealed through critical analysis.

The fact that political speech as a part of political discourse has always been the scholars' and journalists' favorite subject of interest and investigation (Wodak 2005, p. 577)[3] does not need much explanation. A political speech usually concerns questions of common (local or general) interest and is meant for a broad audience. For the embedment of a political speech, Bitzer (1968) defines the term *rhetorical situation* that covers "a complex of persons, events objects and relations presenting an actual or potential exigence which can be completely or partially removed if discourse, introduced into the situation, can so constrain human decision or action as to bring about the significant modification of the exigence" (p. 6). In other words,

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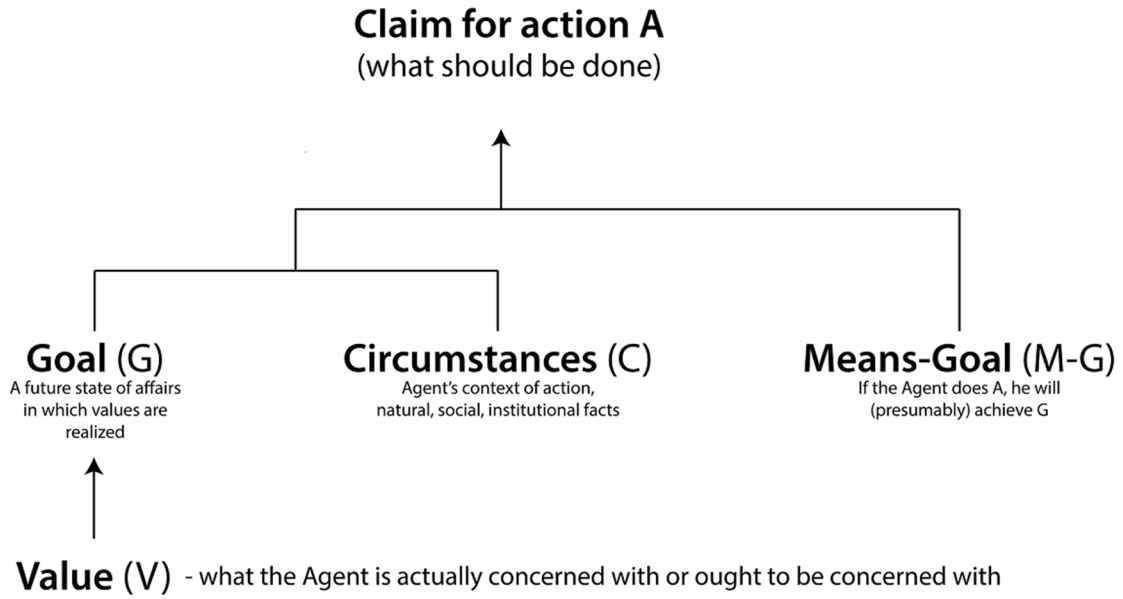
[2] Van Dijk (2006, pp. 735-739) discusses a variety of such techniques. Apart from those mentioned above, some of them are vagueness of meaning, normal expression, polarization, (us-them categorization), counterfactuals, evidentiality, irony, hyperbole and presupposition.

[3] An infinite number of such analyses can be retrieved from websites on entering a well-known politician's name followed by the phrase 'speech analysis'.

a political speech is built upon an exigence as a situation that is "marked by a sense of urgency" (p. 7) and needs action in order to be solved. This perception of the essence of political speech is worth remembering for it seems to fit in with the concept by Fairclough & Fairclough since it is in agreement with what they call "circumstances", which serves as the point of departure for further reasoning, argumentation and (finally) deliberation.

3. The Structure of Practical Reasoning by I. Fairclough & N. Fairclough

The scholars regard political discourse as practical reasoning that they define as "reasoning about what to do" (Fairclough & Fairclough 2012, p. 36). It is based on certain values, pursues a goal and calls for an action that should help achieve it. They propose a structure of practical reasoning, and, in the consequence of political discourse, the basic version of which looks like this (Fairclough & Fairclough 2012, p. 45):



As mentioned before, in their view, political discourse is "fundamentally argumentative and deliberative" (p. 14), which results from the essence of politics as decision making. The argumentative character requires delivery and defense of plausible arguments that speak for the proposed action (in given circumstances and with appropriate goals as premises). The deliberative nature presumes that "minimally, deliberation involves considering a counter-argument, i.e. looking at reasons that support the claim that the action should *not* be performed" (p.11). Importantly, when elaborating their argumentative-deliberative concept of political discourse, Fairclough & Fairclough refer to both single-agent and multi-agent discourse (in brief: one speaker or many speakers on the same topic). This allows looking beyond a single text in search for elements of argumentation and deliberation in the examined discourse and confirms the notion of discourse adapted here.

4. Purpose and Method of this Study

My intention is to check if the method proposed by Fairclough & Fairclough works in the case of a candidacy speech. In their book, the scholars applied it to parliamentary debates carried out directly before a "yes or no" vote in the Parliament. Certainly, a candidacy speech sets a scene for voting, too, but there are at least two vital differences. Firstly, a candidacy speech is bound to be scrutinized, challenged and attacked by adversaries over the whole campaign time (with only limited time for criticism in the case of a parliament speech). Secondly, in the case of elections, voting is based on multiple choice, which means competition/fight whereas a bill, if not accepted, is rejected without immediate acceptance of an alternative. Moreover, like in the example discussed here, a candidacy speech is often held by an "outsider", which may have impact on the design of the text.

I shall examine the speech, paragraph by paragraph, and look for the contents to match the elements of the model in question, i.e. (a) values, (b) circumstances, (c) goal, (d) means-goal relation and (e) call for action. The concordance between the revealed structures of the speech and this particular model will be verified in this way. It goes without saying that, in the case of any candidacy speech, a call for action is inscribed in the external context and is always the same, namely: Support my candidacy, whoever you are and whoever I am.

Through the abovementioned verification of the concordance with the structure of practical reasoning, the (assumed) argumentative and deliberative character of the speech in question will be examined. My hypothesis, based on my personal recipient's experience with candidacy speeches is that the argumentative character of the text to be analyzed can be proved easily, whereas elements of deliberation have to be sought beyond this particular speech, in other texts belonging to the same discourse.

It is important to accept and remember, though, that text/discourse analysis requires interpretation as its inevitable component. This implies that it can always be questioned and confronted with another analysis leading to different conclusions.

5. External Context: British Prime Minister Campaign 2016

In the Brexit referendum held on 23rd June 2016, the majority of British people chose to leave the European Union. Due to this result, David Cameron, who strongly supported the "Remain" campaign, announced his resignation as the Conservative Party Leader and Prime Minister, which meant the necessity to start the legal procedure of appointing his successor. Five candidates decided to run for the office, three men (Liam Fox, Stephen Crabb and Michael Gove) and two women (Andrea Leadsom and Theresa May). It was the both ladies who made it to the final stage. The text analyzed below is Leadsom's launch speech held on 4.07.2016. Since enough attention has been and surely will be paid in future to the speeches of Theresa May who, as is well known now, finally became Britain's prime minister, I shall focus on the candidacy speech by Andrea Leadsom who was then an internationally unknown politician and unexpected candidate. In her position of the Junior Energy Minister in Cameron's government she was not even a member of the cabinet (that gathers the prime minister's consultants and advisors).

A crucial element of the context is Leadsom's strong dedication to and engagement in the successful "Leave" campaign. Another important matter is the fact that a referendum result is legally not binding for the government in the UK. Therefore, although hardly imaginable in the established British democracy, the government still could – in accordance with the law – decide for Britain to remain in the EU.

6. The analysis of Leadsom's speech[4]

For the obvious reason of space limitation here, only selected elements of the speech will be discussed. They are supposed to match the structural constituents of practical reasoning, as illustrated through the scheme provided above.

a) Values

Two big values are strongly accentuated in the initial and the final part of the speech, respectively: **freedom** ("We are choosing freedom away from the stifling EU institutions") and **democracy** ("Our democracy is the oldest in the world"). It is pointed out that it is the former that enables the latter. The outcome of a referendum is pictured as a big success that gave back freedom to British people. Thus, the conceptualization offered is that of a war just won against an oppressor. The reference to the fall of the Berlin wall puts additional emphasis to the importance of this factor on the one hand, and to the weight of the yoke dropped on the other hand.

b) Circumstances

The speaker declares that "**the referendum result is final**". This seems to be a double message, to reassure the "Leave" supporters that Brexit will be executed for certain, and possibly destroy the hopes of the others. Therefore, the statement obtains the function of a hidden appeal for the union of the British nation (which is later explicitly indicated as a goal).

She states "**a division within the nation**", with a conciliatory observation that "the referendum didn't cause divisions but it certainly did reveal them", which prevents the qualification of the referendum as the origin of the problem and thus an "evil".

The PM candidate confirms that "many people are shocked at the referendum result", which reinforces the diagnosis of division and underlines that the outcome of the voting was rather surprising. She hurries to appease the disappointed with the assurance that there is no reason for them to be worried: "What I would like to say to them is please: Don't be afraid; We haven't lost our senses; We haven't stopped caring about each other; We haven't stopped loving our families and children; We haven't stopped loving our country either". This sounds, once again, like an appeal for unity.

The speaker realizes that "**many citizens are not happy about their economic situation**", which serves as a link for her promises to improve the quality of their lives, if elected ("The

[4] The full text is enclosed in Appendix.

importance of wealth and job creation is core to all my beliefs…", "Workers' rights under my leadership will be protected and enhanced.").

A further step is to point to the guilty of the situation: "**The EU elites failed to handle crucial problems**". Therefore, the responsibility for the British people's wish to exit EU, is clearly ascribed to the latter. Besides, when saying that "the rich who caused the 2008 crash were not brought to book", Leadsom reveals national negligence and thus room for local vindications.

It should be noted that the presentation of circumstances here can be considered as an "exigence package" in the sense of the above mentioned rhetorical situation by Bicker. The set of conditions as depicted by the speaker justifies the need to respond with measures that are meant as solutions.

c) Goals (desired states of affairs)

The speaker mentions two relevant goals to be pursued by the new government: "**bringing the nation together**" and "**building a greater Britain**" (outside EU). The former directly results from the above mentioned diagnosis of the circumstances that include a split society, with strong support for both staying with UE and leaving it. Since the decision about Brexit is considered final, bringing the nation together can only mean convincing the unconvinced about the righteousness of the choice to leave. The latter sounds like as allusive wordplay (since Great Britain is great anyway[5] it can only be made greater) and a rather extensive slogan, with infinite number of possible specifications.

d) Means that can lead to the goals (M-G)

Only **quick Brexit** as an initial means and the changes that it enables can make it possible to achieve the goals: "Neither we nor our European friends need prolonged uncertainty and not everything needs to be negotiated before Article 50 is triggered and the exit process is concluded". Brexit will entail that "**decisions about Britain will be made in Britain, by the British parliament**" (argument for means) so that "**billions of pounds more will be invested in the NHS from the savings we make from cancelling our EU membership fee**" (argument for means). The EU citizens who are in the UK already should be granted the right to stay (emotional argument for means): "I commit today to immediately guaranteeing the rights of our EU friends who have already come here to live and work. We must give them certainty – they will not be bargaining chips in our negotiations".

In order that all the above can happen, as a super-ordinated means to the goals, a guarantor and executor of an effective Brexit as well as the required reforms are needed, namely herself, the speaker Andrea Leadsom with all her skills and abilities. She says: "It was a big decision to put myself forward to lead our country. One that was driven by my absolute conviction that our future, and that of our children and grandchildren, will be so much better outside the EU". The

[5] In one of the episodes of "Doctor Who", a very popular British TV series, the main character says that "only Britain is great".

argument so far is emotional, which does not deprive it of the argument status. A more concrete line of reasoning follows with enumeration of her experience and achievements: "I chaired and founded charities, I care a lot about children" or "I've sat on the Treasury select committee. I've been City minister and Energy minister. I set up and led the Fresh Start Project with the support of over a hundred MPs" (arguments).

e) Call for Action

As mentioned already, it is clear that the call for action in every election campaign speech, even if not articulated, is always the same and reads: **Vote for me**. In the Leadsom speech, the arguments for the speaker's candidacy are enumerated and elaborated in the part introduced with the pseudo rhetoric question "Why me?" as a transparent invitation to elect her. She claims to have the right attitude (reflected in her promises and commitments), skills and qualifications.

Resume (a-e)

The kernel points of reasoning in the Leadsom speech are these: British people appreciate democracy and freedom (**values**). As long as UK remains EU member, these values cannot be converted (decisions are made in Brussels). The referendum result with its ramifications (**circumstances**) means a big chance for the British nation to regain democracy and freedom and the people need and want them back (**goals**). Regarding the difficult economic, political and social conditions (**circumstances**) the goals pose a big challenge for the new prime minister. The goals can be achieved, though, with Leadsom in this role since she is equipped with the necessary skills, experience and attitude (**means-goal**), so it is recommendable to entrust her with the leadership (**call for action**).

7. Critical Comments

In the presentation of circumstances, only **avoided losses** in the new circumstances are put forward (ties to European people as friends and trade partners, national security through NATO membership), immediately followed by criticism of the opposite camp (decision makers of Brussels) as justification of the people's choice (failure to deal properly with youth unemployment, declining share of world trade and globalization).

Unmentioned is the fact that the idea of Brexit attracted only a slight majority of voters (51.9%), part of them – as argued in the aftermath comments – not being fully aware of the practical consequences. No reference is made to the voices that condemned the referendum result assessment rule.

The comparison to the Berlin Wall, the purpose of which was to stop emigration from Eastern Germany to the West has no substantial foundation and is solely emotional rhetoric. Please note that the mere idea of Brexit draws on the immigration problem, i.e. emigration, from the Eastern European perspective. The fall of the Berlin Wall made migration possible again. Erected in 1961, the wall separated West Berlin from what was ironically referred to as

"Berlin Capital" and at the same time from the whole Eastern Germany. Once the wall was removed by German people themselves in a collective action of taking it apart brick after brick (1990), the process of democratization was started that included the freedom to move.

A masterpiece (or a cunning trick) underlies the following utterance:

> The result is final. It **must be** respected and **I will** respect it. **The United Kingdom will** leave the European Union. **Freedom of movement will** end and the British parliament will decide how many people enter our country each year to live, work and contribute to our national life (emphases added).

As can be seen, the initial judgment is formed in Passive Voice, which renders it impersonal and thus objective in character. Then, the sentence in Active Voice starts with the personal "I" so that the following actions are presented as consequences of the speaker's action or attitude (in the prime minister's role).

The abovementioned statement about the referendum result being final is ambiguous. Firstly, because it is legally not biding for the government. Secondly, because with the 51.9 % of Brexit supporters it is not convincing. Many think that a qualified majority should be required for an extremely important decision like EU membership.

In the light of the above observations it seems justified to conclude that the circumstances are presented in a modified version, in an evaluative manner that suits the speaker's purposes. Undoubtedly, the Brexit idea should be reinforced and promoted in this way and the speaker's position as a PM candidate – strengthened.

As regards the speaker's qualifications and experience, they were scrutinized and questioned by journalists. For example, as argued by Oliver Milne in *The Sun* as well as by Simon Bowers, Holly Watt and Davig Pegg in *The Guardian* (both from 6th July 2016), she lacks fund managing and team leading experience.

Concerning the timing of Brexit procedures, numerous UK experts and politicians would like to delay the withdrawal process from EU to prepare it carefully, rather than in a hurry. As pointed out by Jamie Micklethwaithe in the Evening Standard on 27th June, the group of supporters of the slow approach includes the then Chancellor Osborne from Leadsom's own party, whom she mentions with admiration: "I'll continue to build on the good work that George Osborne has done in reducing the deficit". This implies that a prime minister like Leadsom, who is determined to act quickly in this respect, may not be the best choice at all.

When promising the current foreign UK residents the right to stay, Leadsom displays her care for people's lives and thus her human face. But she does not provide any rational arguments to support this idea which has strong opponents Britain. To illustrate, as reported by Dan Bloom in The Mirror on 4th July, Theresa May refused to guarantee it and Immigration Minister Brokenshire confirmed her decision as the government's policy. What results from this is that a strong commitment for the foreigners' benefit does not necessarily strengthen Leadsom's position or increase her chances to be elected prime minister.

8. Summary and Conclusion

The candidacy speech by Andrea Leadsom has been examined in order to determine whether its construction matches the structure of practical reasoning proposed by Fairclough & Fairclough and whether it confirms the argumentative and deliberative character of political discourse as claimed by these scholars. It was shown that the design of the speech corresponds to the structure of practical reasoning. The argumentative character of the discourse can be seen already on the level of the speech itself whereas elements of deliberation have not been encountered in the speech. According to the expectations, they appear only beyond the text by Leadsom, in critical responses to and comments on her address. This finding is compatible with the thesis by Fairclough & Fairclough about the argumentative and deliberative character of political discourse in general, as long as the notion of discourse covers a multitude of related texts.

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Appendix

Andrea Leadsom candidacy speech, retrieved from: http://blogs.spectator.co.uk/2016/07/want-guide-britain-sunlit-uplands-full-text-andrea-leadsoms-leadership-speech/ (2.10.2016)

The decision we took on the 23rd June was a great moment in history. Not just a historic opportunity for our country but for Europe as a whole. Perhaps the biggest moment since the Berlin Wall came down. We are not leaving any of our historic ties with our European friends, We are choosing freedom away from the stifling EU institutions. Through NATO we remain bound through the 1949 treaty to come to the defense of Europe's democracies if they are attacked. The nations and peoples of Europe remain our close friends, staunch allies and key trading partners. I believe, however, that our vote to leave the EU will be a positive wake up call for those European elites who have been far too complacent about:
– Youth unemployment that is wrecking lives in S Europe
– The declining share of world trade that threatens Europe's progress, and
– The failure of the Brussels machine to respond to globalization.

Because of our decision on June 23, we are no longer bound to that EU model. We will have our freedom back. Today I want to talk first about our future place in Europe, second about building a greater Britain and then, third, about why I am the best choice to lead our country forward. I want to start with the result of the referendum and the clear choice of the British people. The result is final. It must be respected and I will respect it. The United Kingdom will leave the European Union. Freedom of movement will end and the British parliament will decide how many people enter our country each year to live, work and contribute to our national life. Billions of pounds more will be invested in the NHS from the savings we make from cancelling our EU membership fee. The laws and regulations that govern the British people will be made in Britain – and not Brussels. And at elections the British people will be able to appoint or sack politicians, secure in the knowledge that EU bureaucracy cannot undermine their wishes. I intend to keep the negotiations as short as possible. Neither we nor our European friends need prolonged uncertainty and not everything needs to be negotiated before Article 50 is triggered and the exit process is concluded. My team will set out trade, border and security agreements – our renegotiation will be in the hands of a dedicated Cabinet colleague. I emphasise 'dedicated'. The team that I will assemble to lead Britain out of the EU will consult opposition politicians, business people, farmers, trades unions and trade negotiators. I will closely consult with colleagues from the Scottish, Welsh and Northern Irish devolved parliaments, as well as here in Westminster, to make the most of the huge opportunity that lies ahead. I will do everything in my power to keep the United Kingdom United.

And this brings me on to my second of three themes for today. The next prime minister must bring the nation together. The EU referendum didn't cause divisions but it certainly did reveal them. Many people are shocked at the result but they really shouldn't be. What I would like to say to them is please: Don't be afraid; We haven't lost our senses; We haven't stopped caring about each other; We haven't stopped loving our families and children; We haven't stopped loving our country either; We've just rediscovered our Freedom!

It's very obvious that many fellow citizens are unhappy with the way the economy works for them. So it won't be enough to protect the working people of this country by just reducing the flow of low-skilled labour – although that is necessary. When there is room for tax cuts they must be focused on the low-paid. The importance of wealth and job creation is core to all my beliefs but the richest people of Britain should know that they will not be my priority. Britain will make her way in the world by investing in the skills of her people – not by expecting them to adopt unacceptable conditions. And those people who have become rich by winning boardroom pay rises that bear no relation to company performance should be aware that I find this unacceptable. Too few people in my old field of financial services were ever brought to book for their part in the 2008 crash.

I'll continue to build on the good work that George Osborne has done in reducing the deficit. We have to get our house in order. The Chancellor's sound northern powerhouse project needs to be supercharged, and I won't forget that Sunderland was one of the first to make very clear, last Friday morning, the desire for change. I will appoint a key minister for housing and try my hardest to keep him or her in the job for the rest of the parliament. I want a minister who thinks of nothing other than how to use a bigger housing budget to deliver on the aspirations of the working people of this country. As well as spending more on roads, railways and broadband I'll make rapid decisions on airport expansion. Business needs certainty. I will prioritise new trade deals with the fastest growing parts of the world, a simpler tax system, and an immigration policy focused on bringing the most talented people to our country. Workers' rights under my leadership will be protected and enhanced, as my friend Gisela Stuart MP and I made clear during the referendum debates. The national living wage, the apprenticeship levy and Michael Gove's important pupil premium will all be safe under my watch. And I commit today to immediately guaranteeing

the rights of our EU friends who have already come here to live and work. We must give them certainty – they will not be bargaining chips in our negotiations.

Finally, why me? It was a big decision to put myself forward to lead our country. One that was driven by my absolute conviction that our future, and that of our children and grandchildren, will be so much better outside the EU. But my real passion in politics is my desire for social justice – for a transformation of our society. For nearly two decades I've been chairing and founding new charities to support the earliest years of life. There is no doubt that the period from conception to the age of two is critical…it is during this period that the lifelong emotional capacity of a human being is largely set up. Being able to learn, being able to make friendships, to hold down a job, to have a sense of self-worth. These sound very basic, but for too many in our country these things are elusive. And there's a financial angle to this. The choice our country faces is simple: We spend more on early intervention or we spend much more later on picking up the pieces of lives that struggled at school, struggled in work, and all too often found themselves without hope. I am certain we can change that, and my absolute commitment to it and the emotional health of our nation.

So, what else have I done? I've been in business for 25 years, running businesses large and small and working in charities. I know from long experience how our economy works. I know how to strike a deal in a tough negotiation. I know, as a woman, how to succeed in a man's world and how to fight the unfortunate prejudice that many working mums experience. I've sat on the Treasury select committee. I've been City minister and Energy minister. I set up and led the Fresh Start Project with the support of over a hundred MPs. Together we oversaw the biggest ever investigation into EU laws that any parliamentary group has ever undertaken. Through that Group, I am better prepared for the coming negotiations than anyone else. I know I can do the job. I know I can seize the great opportunities for the UK in leaving the EU, and I am confident I can do it in a way that reaches out to those who didn't vote for it. I know I can deliver more fairness for people who have struggled to make their way. Finally, I want to make an appeal to the country. Our democracy is the oldest in the world. We are the mother of all parliaments. We have led the world in human rights. Let's show the world that we can disagree. We can disagree strongly, but let's also show them that we treat each other with respect. I believe this nation can become the greatest on earth. Our future is not written until we, the people, write it. As your prime minister my ambition will be to guide our country to the sunlit uplands – a future for our children and grandchildren of aspiration, tolerance and hope.

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The use of metonymy and metaphor in descriptive essays by intermediate and advanced EFL students

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Abstract

This article involves an empirical linguistic study aimed at elucidating the use of metonymy and metaphor in descriptive essays written by a group of intermediate EFL students (further referred to as 'participants'). 20 participants were recruited at Stockholm University, Sweden and matched with a control group comprised of 20 advanced EFL students at the same university. The participants and their respective controls were given five pictorial stimuli containing famous architectural landmarks in Sweden. The participants and the control group were instructed to write a one paragraph descriptive essay about each pictorial stimulus using either i) an imaginary and creative approach or ii) a non-imaginary and purely descriptive approach. The corpus of the participants' and controls' essays was subsequently analysed in the computer program WordSmith (Scott, 1996). Quantitative analysis in WordSmith yielded descriptive statistics involving word frequencies. Then, the corpus was analysed manually for the presence of metonymy and metaphor. Qualitative findings seem to support previous research (MacArthur, 2010; Haghshenas & Hashemian, 2016), which suggests that the use of metonymy tends to be associated with the intermediate level of EFL writing, whilst both metonymy and metaphor are predominantly found in the writing by advanced EFL learners.

Keywords: advanced EFL level, essay, intermediate EFL level, metonymy, metaphor

1. Introduction

This article involves an empirical investigation of the use of metaphor and metonymy in short descriptive essays written by 20 intermediate and 20 advanced students of English as a foreign language (EFL) whose first language (L1) is Swedish. The importance of metaphor and metonymy in educational settings is well-established (Boers, 2003; Cameron, 2003; Littlemore, 2009; Littlemore et al., 2011; Littlemore & Low, 2006). In Applied Linguistics and in EFL studies, there is sufficient research exploring linguo-didactic aspects of metaphor and metonymy in foreign language acquisition (Boers, 2003, p.231). The ability to produce metaphor and metonymy is deemed to be of great importance for foreign language learners (Kecskes, 2000; Radic-Bojanic, 2013). EFL literature suggests that an EFL student's comprehension and production of metaphor and metonymy positively correlates with general knowledge of the

foreign language (Littlemore, 2010), and in particular, with grammatical, communicative (Kecskes, 2000), and textual competencies (Littlemore & Low, 2006).

Current literature in EFL studies seems to favour the view that EFL learners need to understand the metaphors and metonymies used by native speakers of English, and produce them in oral and written tasks (MacArthur, 2010, p. 156). Previous research suggests that metaphoric and metonymic production may provide important insights into an EFL learner's competencies, which involve different levels of language proficiency (MacArthur, 2010, p. 158). In this regard, Kecskes (2000) posits that the level of the students' EFL proficiency maps onto the production of metaphor and metonymy, especially in written tasks. Research literature indicates that metonymy tends to be associated with an intermediate level of EFL proficiency, whilst the ability to produce metaphor is deemed to be a feature of the advanced EFL students' language mastery (Littlemore et al., 2011). However, even at the advanced EFL levels of proficiency metaphor is thought to pose difficulties for EFL learners (Littlemore, 2009).

Whilst there is an ever growing body of research in Applied Linguistics and EFL studies associated with metaphor and metonymy comprehension (Cameron, 2003; Kecskes, 2000; Littlemore, 2012; Littlemore et al., 2011; Littlemore & Low, 2006; Rundblad & Annaz, 2010), there is still a need to explore the use of metaphor and metonymy in EFL production tasks, especially in EFL writing. A meta-analysis of the current literature in EFL is suggestive of an underrepresented status of metaphor and metonymy in the textual competency enjoyed by an EFL student. Within the field of Applied Linguistics and EFL studies, textual competence is regarded as "the ability to understand and produce well-organized and cohesive text in both written and spoken context" (Littlemore & Low, 2006, p. 282).

Set within the context of EFL textual competence, the novelty of this empirical investigation consists of these two foci: i) the research design further presented in this study involves intermediate and advanced groups of EFL students, whose L1 is Swedish; and ii) the present study elucidates the production of metaphor and metonymy in EFL descriptive essays based upon pictorial stimuli, which involve famous architectural landmarks in Sweden. The present article is structured as follows: First, previous research involving metaphor and metonymy in EFL will be outlined. Second, the present study will be introduced, focusing on the participants, experimental stimuli, results and discussion. Third, the conclusions of the present investigation will be discussed within the light of pedagogical implications to the field of EFL writing.

1.1. Metaphor and Metonymy in EFL: A Brief Outline

Research in Applied Linguistics and EFL studies indicates that metaphor and metonymy involve semantic principles of meaning extension (Gao & Meng, 2010; Horowitz, 1990; Kalyuga & Kalyuga, 2008; MacArthur & Piquer Píriz, 2007). Metaphor and metonymy are viewed as two distinct, yet related tropes (Cameron & Deignan, 2006; Charteris-Black, 2003; Littlemore, 2012; Turker, 2016). Within the field of EFL, metaphor is regarded as a trope, which involves a description of one entity in terms of another (Littlemore, 2012). Metonymy is considered a trope based upon a stand-for relationship (de Mendoza Ibanez, 1997; Kovecses, 2013; Littlemore, 2009; Littlemore & Low, 2006, p. 269), where one entity refers to another contiguous

entity (Lin, 2015, p. 43). A traditional view of distinguishing metaphor and metonymy as relying on similarity versus contiguity (Rundblad & Annaz, 2010, p. 548) is specified by Warren (1999, p. 130), who posits that the difference between metaphor and metonymy is "said to be that metaphor is based on resemblance relations whereas metonymy is based on contiguity". To exemplify, let us examine the following example of metonymy provided by Warren (2002, pp. 1-2), e.g. *She married **money***. Here, 'money' implies a person who is rich and has money. Hence, the metonymic transfer takes places from a person onto the properties associated with that person (i.e., money). Further, Warren exemplifies metaphor by referring to the following sentence: *You scratch my **back** and I will scratch yours.* The metaphor in this sentence is based upon a metaphoric mapping from a body part that is difficult to reach (*back*) onto a situation which is difficult to cope by one person. In other words, this situation involves an interaction between one person (A), who helps another person (B) with what B cannot do, but which can easily be done by A, and B will return such a service to A (Warren, 2002, pp. 1-2).

Whilst the present research is not carried out within the framework of Cognitive Linguistics (Gibbs & Steen, 1999; Lakoff & Johnson, 1980; Langacker, 2002), it should be, nevertheless, noted that there is a growing number of publications which address the use of metaphor and metonymy in EFL from a cognitive perspective (Littlemore, 2009). In Cognitive Linguistics, metaphors are defined as "cross-domain mappings, in that elements from a source domain are mapped onto a target domain" (Burgers, 2016, p. 250), whereas metonymy is seen as a mapping within the same or contiguous domain.

In Applied Linguistics and in EFL studies, metaphor and metonymy involve lexical, morphological, syntactic, and collocational characteristics of the expressions (Littlemore & Low, 2006; Roldán-Riejos & Úbeda Mansilla, 2013). In particular, research findings suggest that the use of metaphors in the form of set phrases for conveying abstract ideas constitutes a specific rhetorical pattern in EFL writing (Gonzalez et al., 2001, p. 630). It is inferred from previous studies (Cameron, 2003; Littlemore & Low, 2006; Littlemore et al., 2011) that metaphor and metonymy in EFL involve a plethora of other characteristics, such as description, explanation, exemplification, clarification, summation, and evaluation. Previous research indicates that

> an ability to use metaphor and metonymy appropriately can thus contribute to a language learner's communicative competence. One might, therefore, expect an ability to understand and produce metaphor and metonymy to contribute to language proficiency (Littlemore, 2012, p. 15).

According to MacArthur (2010, p. 157), metaphor awareness is embedded into a dynamic context of EFL acquisition in an instructed setting, "where it is normal to find a mix of abilities as well as a range of cognitive styles, learning strategies, attitudes and so on". Within a wider context of EFL textual competences, metaphor is believed to be used to facilitate the structuring of the argument within the units of text (Littlemore & Low, 2006, p. 282). Metonymy as a universal language feature is deemed to be multifunctional within the context of an EFL student's textual competency. Metonymy in EFL writing is associated with evaluative and euphemistic language usage, humour, and pragmatic inferencing (Littlemore, 2009).

Whilst MacArthur (2010, pp. 157-159) does not seem to address the issue of metonymy in EFL writing, it is, nevertheless, inferred from her research that metonymy, amongst other forms of figurative language, affects numerous aspects of EFL students' learning systems, for instance semantic competence and vocabulary development. MacArthur (2010, p. 161) emphasises that "metaphorical uses of language will become increasingly necessary for FL learners as they move from talking or writing about the here-and-now and move into the realm of abstraction". Presumably, the metonymic usage of language is of equal importance in EFL speaking and writing competencies. It is inferred from MacArthur's (2010, p. 166) seminal work on metaphor production in EFL classroom that the exploration of metaphor by an EFL learner may occur at different moments, which are necessitated by a variety of tasks, such as writing.

It should be noted that theoretical models of figurative language processing and acquisition in EFL seem to factor in the input of the first language (L1) figurative language processing (Littlemore et al., 2011; Turker, 2016). Theoretical tenets of L2 and EFL figurative language processing involve the applicability of the students' L1 to their L2 and/or EFL metaphor comprehension and production. The findings by Littlemore (2010) suggest that the ability to understand and produce metaphor in the L1 is related to the ability in the L2, i.e. those students who produce metaphors in their L1 are likely to do so in their L2. Littlemore (2010, pp. 302-304) argues that metaphoric competence is a relatively stable individual difference variable, which may partially account for differences in an EFL classroom.

However, the relationship between a student's L1 and L2 metaphoric competence is not straightforward. For instance, Danesi (1993) suggests that high level proficiency students in L2 continue to operate in terms of their L1, and perform poorly on L2 metaphor comprehension. This finding is echoed by Chen and Lai (2014), who posit that even advanced L2 and EFL learners experience difficulties with metaphor and metonymy comprehension. Arguably, more research avenues should be explored in terms of establishing possible differences in metaphor and metonymy production by intermediate and advanced EFL learners. The research further described in the following sections of the article addresses the above-mentioned problem through the lenses of Applied Linguistics.

2. The Present Study: Its Hypothesis and Specific Research Aims

The present research is carried out within the framework of an applied linguistic approach to the study of metaphor and metonymy in EFL. It involves a corpus of descriptive essays written by 20 intermediate and 20 advanced EFL university students. Set within the applied linguistics paradigm, this research focuses upon linguistic metonymies, which involve stand-for relationships, and linguistic metaphors understood as a stretch of language that has the potential to be interpreted metaphorically (Cameron, 2003; Chapeton, 2010).

The point of departure of this investigation is based upon Chapeton's (2010) contention that an insufficient number of empirical studies involving the use of linguistic metaphor and metonymy in written production by EFL learners does not exhaustively elucidate the usage and occurrence of metaphors and metonymies by EFL learners in essay writing. Taking this argument further, **the Hypothesis** of the present research involves the following assumption: It

is assumed that a descriptive essay writing task in EFL based upon a set of visual stimuli involving famous architectural landmarks would result in EFL essays marked by the presence of metaphors and metonymies. Following Caballero (2013), it is assumed that pictorial stimuli involving architecture would be suggestive of potential metaphoricity, thus resulting in predominantly metaphorical essays based upon those stimuli. Concurrently with this assumption, however, it is theorised that architectural pictorial stimuli would be conductive to writing descriptive essays characterised by the occurrence of metonymy. The latter assumption is based upon the findings reported by Roldán-Riejos & Úbeda Mansilla (2013), who indicate that metonymy and, predominantly, metaphor have been identified in EFL essays involving architecture. Factoring in previous research (MacArthur, 2010) that indicates that metaphors are likely to be produced by advanced EFL students, it is hypothesised that EFL essays written by intermediate EFL students would be characterised by the instances of metonymy, in contrast with the essays produced by the advanced EFL students, which would be associated with the usage of metaphor. Hence, **the specific research aims** of the present investigation are i) to identify the instances of metonymy and metaphor in the EFL students' essays, and ii) to compare the usage of metaphor and metonymy, respectively, between the groups of intermediate and advanced EFL students.

2.1. Participants

40 participants in total were recruited for the present study, consisting of a group of 20 intermediate EFL university students (M age = 21, 12 females and 8 males), matched with a group of 20 advanced EFL university students (M age = 23, 11 females and 9 males). All the participants attended Stockholm University at the time of the experiment. The participants indicated that Swedish was their L1 and English was a foreign language to them (EFL). Students whose L1 was English were excluded from the experiment. The group of intermediate EFL learners was comprised of the students of the second semester of the study of English who were enrolled in the secondary school teaching programmes, whereas the group of 20 advanced students consisted of EFL students enrolled in the advanced course of Psycholinguistics conducted in the English language and offered after the third semester of the study of English. The participants' real names were coded to ensure confidentiality. The intermediate participants were coded as INT1, INT2, …, INT20, whilst their controls were coded ADV1, ADV2, … and ADV20, respectively.

2.2. Materials

The materials used in the present study involved five pictorial stimuli of the well-known architectural landmarks in Sweden, namely the castles of Gripsholm, Läckö, Rosersberg, Tullgarn, and Ulriksdal. For the purpose of consistency, the author of the present article took pictures of all the above-mentioned castles on summer days, with some sunshine and clouds present in each of the photos. In all the photos, the castles were foregrounded and centrally located, with the whole façade being captured. It was ensured that all the photos had been taken

without people or animals in them. The photos did not contain any identifying information, such as the castles' names and their locations.

2.3. Procedure

Both the advanced and the intermediate groups received identical instructions about the task. The groups were instructed to access the pictorial stimuli available for download and viewing online on the student portal (Mondo) and to write a short essay of no more than 300 words about each pictorial stimulus. It was explained in the instructions that five short essays were expected within a two weeks deadline. It was specified that all the essays should be either purely descriptive or descriptive with the use of imagination. Both the groups were instructed to be consistent and to choose either a purely descriptive approach in all their essays or, alternatively, choose a descriptive approach with the use of imagination when describing the stimuli. All the participants as well as the control group were asked to label each of their five essays with the labels 'Descriptive' or 'Imagination'. Both the groups were instructed to send their essays to the researcher via e-mail. The participants in both the groups received a percentage of their course mark for the assignment.

2.4. Methods

This study involved a mix-methods methodology, consisting of a quantitative and a qualitative part. The quantitative statistics involving the total number of words and word frequencies were computed by the WordSmith (Scott, 1996) software program. The qualitative methodology of metaphor and metonymy identification followed the guidelines described in detail by Littlemore and her colleagues (2011), who operationalised their metaphor and metonymy identification procedure by examining any stretch of the discourse "whose surface meaning appears to be anomalous or incongruous with the surrounding co-text" (Littlemore et al., 2011, p. 4). In accordance with Littlemore et al. (2011, p. 4), the present qualitative methodology involved the following steps: i) the first step consisted of the textual analysis of those language stretches, which could include idioms, metonymy, and other figurative language types; ii) the second step involved the testing for metaphoricity by examining a 'domain incongruity' between the item and the topic to which it referred; iii) the third step involved the testing for metonymy by analysing whether or not the relationship between the lexical item and the topic to which it referred was based upon contiguity.

2.5. Results

All the participants and their respective controls completed the whole array of the descriptive essays tasks. Their performance was analysed in the software program WordSmith (Scott, 1996), which yielded the descriptive statistics represented in Table 1 and the measure of the most frequent words summarised in Table 2. It should be noted that the cut-off was arbitrary set at 100 most frequent words (unfiltered).

Table 1. *Descriptive Statistics of the Essays Written by the Intermediate and Advanced Groups*

Group of Participants	Total Number of Words Per Group	Total Number of Sentences Per Group
Intermediate	10792	625
Advanced	17569	894

Table 2: *The Occurrences of 100 Most Frequent Words per Group*

Group of Participants	100 Most Frequent Words per Group
Intermediate	the (1008), a (363), of (320), and (271), in (233), building (194), it (186), to (185), I (169), this (157), on (145), picture (143), that (142), there (124), castle (113), are (104), as (98), with (92), be (90), would (83), or (75), which (74), like (67), have (67), was (63), one (60), has (58), not (55), but (54), also (51), windows (50), they (47), built (47), by (45), for (45), from (43), house (43), some (43), palace (43), at (42), previous (38), looks (37), can (37), main (34), very (34), three (34), white (34), during (33), lawn (32), time (31), front (31), entrance (30), other (29), color (28), large (28), façade (27), been (27), look (27), so (26), people (26), more (25), an (24), towers (24), all (24), see (24), sky (24), since (24), me (23), side (23), than (22), period (22), roof (22), many (21), taken (20), beautiful (20), wall (20), architecture (19), pictures (19), well (19), right (19), if (18), blue (18), grey (18), tower (18), assume (18), style (18), red (18), green (17), must (17), could (17), no (16), perfect (16), description (16), walls (16), around (16), couple (16), sort (16), rather (15), summer (15), think (15)
Advanced	the (1468), a (601), of (573), and (537), to (390), in (341), is (313), on (249), it (241), there (233), that (191), are (191), I (165), castle (147), with (141), house (131), be (129), not (127), they (123), he (114), this (113), she (104), picture (101), building (101), was (101), have (97), as (96), one (87), but (86), like (84), which (84), her (82), would (81), for (81), has (76), windows (73), also (67), could (66), two (66), his (64), looks (61), by (61), front (60), people (60), or (59), side (59), at (58), towers (55), top (55), all (54), right (54), from (53), white (53), man (52), tower (51), been (50), about (50), so (48), up (48), had (48), some (47), them (46), when (46), middle (45), their (44), out (42), red (42), since (41), where (40), do (39), other (39), very (37), my (36), black (36), who (36), king (35), time (35), left (35), were (35), three (35), can (34), see (34), more (33), old (33), you (33), walls (32), entrance (32), day (32), small (32), never (32), if (31), around (31), many (30), any (30), seems (28), big (28), get (28), how (27), only (26), different (26)

Instances of metaphor and metonymy in the descriptive essays written by the participants and their controls were identified manually in accordance with the methodology provided by Littlemore et al. (2011). Based upon the labels 'Descriptive' and 'Imagination', the total number

of the participants and the controls who wrote purely descriptive essays and essays with the use of imagination was calculated manually. Those statistics were compiled in Table 3 below.

Table 3: *Instances of Metaphor and Metonymy Occurrence per Group*

Group of Participants	N of Metonymies Per Group	N of Metaphors Per Group	N of Participants/ Controls Who Wrote Purely Descriptive Essays	N of Participants/ Controls Who Wrote Descriptive Essays with the Use of Imagination
Intermediate	13	8	14	6
Advanced	15	17	8	12

2.6. Discussion

As evident from Table 3 in the Results section, the total number of the intermediate EFL students who have written purely descriptive essays is 14, whilst the total number of those intermediate students who have written descriptive essays with the use of imagination is six. These findings are in contrast with the group of advanced EFL students, 12 of whom have chosen to write descriptive essays with the use of imagination, and eight of whom have written purely descriptive essays. The results of the quantitative analysis indicate that the differences between these groups involve the following statistics: the total number of words, the total number of sentences and the occurrence of the most frequent words. It should be reiterated that both the groups have received identical instructions as far as the maximum number of words per paragraph is concerned (no more than 300 words per paragraph). Judging from the data, the advanced students have exceeded the word limit by producing substantially longer essays (17569 words in total) compared with the intermediate group (10792 words in total).

The results of the quantitative analysis of the word frequencies in WordSmith (Scott, 1996) have revealed several quantitative differences involving lexico-semantic categories. In particular, the group of the advanced students has resorted to the lexico-semantic category PERSON more often compared to the intermediate students. Specifically, whilst the essays written by both the groups contain the first person singular *I* (165 occurrences in the advanced group and 169 in the intermediate group), the essays written by the advanced group are characterised by the frequent occurrence of the pronouns in the third person singular, which have not been identified in the essays by the intermediate students, e.g. *he* (114), *she* (104), *her* (82), and *his* (64).

At the same time, the intermediate group's essays are marked by a more lexically dense lexico-semantic category BUILDING, compared to the advanced group. For instance, in the intermediate group's essays this lexico-semantic category is represented by the following category members: *building* (194), *castle* (113), *windows* (50), *built* (47), *house* (43), *palace* (43), *lawn* (32), *front* (31), *entrance* (30), *façade* (27), *towers* (24), *side* (23), *roof* (22), *wall* (20), *architecture* (19), *tower* (18), and *walls* (16). In comparison, the lexico-semantic category

BUILDING is less dense in the essays produced by the advanced group, cf. *castle* (147), *house* (131), *building* (101), *windows* (73), *front* (60), *side* (59), *towers* (55), *top* (55), *walls* (32), and *entrance* (32). Arguably, this quantitative difference can be accounted for by the predominance of purely descriptive and non-imaginary essays written by the intermediate students. An example of a purely descriptive essay is provided in Excerpt 1, written by an intermediate student (coded for confidentiality as INT 5):

(1) *Picture 1. First picture shows a castle, a palace. The palace was done in rococo, Gustavian style. It was built of stone. The palace has three floors and consists of the main building, and two adjacent buildings. Dominant colors are beige and red. One of the main characteristics of the palace is long arched windows. The main building has three large wooden doors. Two lanterns hang next to the doors. There are also two lions at the main entrance with two coats of arms and the crown. There is a tower with the clock on it and King´s flag waves above it. In front of the palace there is a large beautiful park. This palace is a royal summer palace where Swedish royalty spend their summers for centuries.* (Student INT 5)

Excerpt 1 exemplifies a descriptive approach to architecture, focusing on the lexico-semantic category BUILDING and backgrounding other lexico-semantic categories, such as, for instance, COLOURS. Whilst instances of metaphor have not been identified in (1), this excerpt, nevertheless, contains metonymy, which is based upon the WHOLE – PART relationship, e.g. '*The palace has three floors and consists of the main building, and two adjacent buildings*'. It should be mentioned that in this article, the WHOLE – PART relationship is treated as metonymy, in accordance with the approach found in Radden and Kövecses (1999). However, some authors do not consider it as metonymy, and refer to it as synecdoche (Seto, 1999).

Interestingly, the intermediate group exhibits a tendency to employ more metonymy (the total number of metonymy occurrence is 13) than metaphor (the total number of metaphors is eight) in their essays. To illustrate the point, let us examine Excerpt (2) written by the intermediate student coded INT 11. Excerpt (2) involves a description of the same castle as in Excerpt (1):

(2) *Picture 1. Description. This is probably a castle. It looks like this building is on a hill which makes me wonder what can be found on the other side of the building. In front of the building there is a green lawn which looks to be taken well care of. On the lawn, in front of the entrance, there are flowers. The colors of the flowers are mainly yellow. The castle has three different doors which function as an entrance. There is a decoration on the top of the house. It has two shields, one with the three gold crowns on a blue background, a typical Swedish symbol. There is also a lion on the shield. Two statues of lions are situated on either side of the doors. I wonder why lions are often portrayed on castles and shields. Everyone knows that there are no lions in Sweden.* (Student INT 11)

Similarly to Excerpt (1), in (2) there is an occurrence of metonymy, which involves the WHOLE – PART relationship, e.g. *'The castle has three different doors which function as an entrance'*. Another instance of metonymy is based upon the relationships of contiguity between the CROWN and the SWEDISH COATS OF ARMS: '*It has two shields, one with the three gold crowns on a blue background, a typical Swedish symbol*'. Whereas metaphors have not been identified in (1) and (2), the essays written by the intermediate group appear to be marked by a limited number of metaphors (the total number is eight per group), as evident from Excerpt (3) written by the intermediate student coded as INT 17:

(3) *The picture shows a three-story, rectangular building with a great many windows in three rows across the façade. In front of the building there is an orderly green lawn, which is decorated with flowers planted in the shape of some official insignia. There is a small clock tower, topped with a flagpole, which sits in the middle of the roof directly above a pediment decorated with two coats of arms. All the windows on the second floor have French balconies except the three in the centre, which share one large balcony. Directly below are three large wooden doors with windows, flanked at each end by stones statues. The façade is white trimmed with red. The photo was taken on a sunny day and the sky is very blue but it's quite cloudy too. The sunlight on the lawn makes the grass look almost yellow.* (Student INT 17)

The instances of metaphor production in (3) have been identified in i) '*flowers planted in the shape of some official insignia*,' i.e. the flowerbed is metaphorically seen as an official signature or a coats of arms, and ii) '*a flagpole, which sits in the middle of the roof*', where the flagpole is thought of as metaphorically sitting on the top of the roof. In (3), these metaphors seem to be embedded into a descriptive account of what the student observes in the picture.

The results of the qualitative analysis indicate that the intermediate group's essays involve more occurrences of metonymy, e.g. 13 per group, rather than metaphor (eight per group). These findings are indirectly supported by the quantitative statistics yielded by WordSmith (Scott, 1996), which reveal the lexically dense usage of the lexico-semantic category members associated with BUILDING. Presumably, the usage of the concrete lexico-semantic category BUILDING positively correlates with the relative predominance of metonymy identified in the intermediate group's essays. This finding appears to be in contrast with the data garnered from the essays written by the advanced group. As evident from Table 2 in the Results section, the advanced group's writing is characterised by the frequently occurring members of the lexico-semantic category PERSON. In addition to such category members as *I* (165), *people* (60), *man* (52), *my* (36), *you* (33), this category is represented in the advanced group's essays by the occurrence of the third person singular (it should be noted that this phenomenon is not observed in the intermediate group's writing).

The data summarised in Table 2 indicates that the essays written by the advanced group are characterised by a more lexically dense category PERSON, compared with the intermediate students, whose writing appears to be marked by the presence of the category BUILDING. The category PERSON in the advanced group's essays is associated with both metonymic and metaphoric usage. In particular, all 12 advanced students who have written their descriptive essays with the use of imagination, employ a metonymic relationship BUILDING – A PERSON WHO LIVES IN THE BUILIDNG. The metonymic mapping from a dwelling onto a dweller is frequently referred to in current literature (Blackston, 1993; Dickerson, 2012). In the present study, this mapping can be illustrated by the following two excerpts, namely (4) and (5), which are written with the use of an imaginary inhabitant of the castle. Specifically, the whole essay in (4) is structured by a metonymic relationship BUILDING – A PERSON WHO LIVES IN THE BUILIDNG: '*Growing up in a white enormous house with staff cleaning your room … For Maria who lives in that reality the dream looks a little different*'. (Student ADV 12).

(4) *Growing up in a white enormous house with staff cleaning your room and who do anything you tell them to do might seem like a big dream for a lot of people. For Maria who lives in that reality the dream looks a little different. A big house may be absolutely hilarious for a child where there are a lot of spaces you can run and play on. But Maria does not have any siblings to play with and almost no friends either. Many people are jealous*

of Maria and her life and want therefore nothing to do with her. She is dreaming of a normal life with a normal size of the house and no staff that are taking care of everything. Her parents does not understand it, she can buy anything she want and does not have to lift a finger if she does not want to. But Maria thinks that her parents can not say anything about the subject, because they were raised in a normal family without much money or staff. The only reason they are living in such a big house is because Maria parents are both very successful business men. This also means that Maria does not see so much of her parents in periods. She often wishes that they would lose a lot of money so they could not afford living in the house anymore, but they never do. Once she wrote a note about selling the house for only 100 Swedish crones and put it up all over the city. Unfortunately, Maria's teacher saw the notes and called her parents, who were not exactly happy with her. Now, Maria has accepted that she will have to live there until she turns 18. She has promised herself never to buy such a big house herself, but if she does, she will have more than one child, because she never wants her child to feel as lonely as she did. (Student ADV 12)

Similarly, in (5) the metonymic relationship between the castle and its owner is mapped onto an adventure story taking place on the island of Gotland, off the coast of Sweden: '*The legend says that the old castle in Visby is haunted by its first king who was a very mean man.'* (Student ADV 9):

(5) *The legend says that the old castle in Visby is haunted by its first king who was a very mean man. He did not care about anyone but himself. A gang of four teenagers who always push each other to do things they really do not want to do, have decided to visit the castle to see if they can see the old and mean king. Linus, who always brags about how brave he is and teases the others for being afraid, enters the castle first and laughs scornfully towards the rest of the gang who are behind him. What he does not know is that the others are tired of his mean comments about how afraid they are and they have been putting up some traps to scare him. They have been in the castle for about ten minutes before they hear some noises. The gang, except Linus, is looking at each other and one of them whispers "Show time". The noise gets louder and Linus directly starts to mock the others by making baby voices and saying "are you babies scared?" and then he laughs loudly. Suddenly, he feels someone putting a hand on his shoulder, he turns around, and there stands a very old man, who is ghost-white all over his body except his long gray hair. Linus screams like he had never screamed before and runs away so fast that he trips in the stairs. He lies down and watches the "ghost" come closer and now, Linus is so scared he almost cries. As he watch up on his friends to see how scared they are he gets really surprised to see them laughing. The he understands that everything is made up by them and he also starts to laugh and so is the "ghost". Linus looks at his friend and says "You really got me their! I will never mock you for being afraid again and honestly, I would prefer us not to visit any castles for a long time".* (Student ADV 9)

Excerpts (4) and (5) provide typical examples of those 12 advanced students' writing, who have chosen to produce their descriptive essays with the help of imagination. The essays are marked by a substantial presence of the lexico-semantic category PERSON. The focus of those essays seems to be on the people who live in the castles rather than on the castles as a piece of architecture per se. In this regard, it should be, perhaps, reiterated that the essays written by the intermediate group appear to foreground the lexico-semantic category BUILDING, thus focussing more on the architectural details and providing a more specific description of the five pictorial stimuli with the castles. Arguably, metonymy associated with the category BUILDING plays a facilitative role in the castle descriptions by the intermediate students.

However, the presence of metonymy (15 instances in total per group) in the essays by the advanced group is also substantial, even though it is instantiated by the relationships of contiguity between the PERSON WHO LIVES IN THE BUILDING, i.e. the dweller, and the

dwelling, or a BUILDING. As evident from (4) and (5), for instance, the focus in this metonymic relationship is not on the architecture, but rather on the people who live in the BUILDING. Hence, it can be argued that metonymy in the essays written by the advanced group also plays a facilitative role, which is profiled on the PERSON.

It can be generalised from the present data, that instances of metonymy and metaphor, respectively, are qualitatively subsumed under the categories summarised in Table 4 below:

Table 4: *Qualitative Characteristics of Metonymy and Metaphor in the Corpus*

Group of Participants	Metonymy	Metaphor
Intermediate	A part for the whole The whole for a part The colour of the castle – the building (castle) A symbol for the country	The castle as a day on which the photo of the castle was taken Flowerbed as a symbol of insignia Flagpole as an artefact sitting on the roof
Advanced	A part for the whole The whole for a part The building (castle) for a the dweller The dweller for the building (castle)	The building (castle) as a person with feelings The building (castle) as a Hogwarts image (a metaphoric reference to Harry Potter) The building (castle) as a coveted object The castle as a day on which the photo of the castle was taken The person as a castle

The results of the qualitative data analysis reveal that the advanced group's essays contain more instances of metaphor compared with the intermediate group, 17 and eight, respectively. Metaphor in the essays written by the advanced group appears to involve the lexico-semantic categories BUILDING and PERSON, for instance i) '*Ever since that day the castle has been Sarah favourite place and she visits it as often as she can. Every time she does that,* ***the castle makes her feel peaceful and happy***' (Student ADV1)*;* ii) '*Loneliness has never been a problem for Simon, he has been lonely his whole life. The thought of his new life makes him smile and he knows that life will be much better outside* ***these walls of the castle which has hated him for so long****.'* (Student ADV 7). In these two instances, the castles metaphorically project emotions onto humans, such as positive emotions in the first former quote and negative emotions in the latter.

The afore-mentioned quotes containing metaphors are taken from two descriptive essays written with the use of imagination. However, the presence of metaphor has been identified even in those advanced group's essays, which have been labelled 'Descriptive', for instance,

(6) *Picture 5. Description. You saved the best for last. This is a majestic building that would make any university in the world jealous. It all ties together neatly with the reflections in the water and the vivid green trees. To me this is a university campus with so much history built into the walls. Even though the picture I described here is beautiful, it has that Hogwarts-like feel to it.* (Student ADV 20)

In (6), metaphor is identified in the description of a castle which '*…would make any university in the world jealous*'. Judging from Excerpt (6), the metaphoricity of the castle is present even in the seemingly plain description. Echoing Caballero (2003), it can be assumed that metaphor is a critical component in architecture, '*where it mediates the various stages involved in architectural design as well as the discussion on finished buildings*' (ibid.). A metaphorical comparison of the castle with that of Hogwarts is suggestive of Harry Potter's imagery. In other words, architecture represented by famous architectural landmarks in Sweden may invoke not only metonymy, which is observed in the descriptive essay writing by both the intermediate and advanced groups, but also stipulate metaphoric account of the architecture in the EFL essays.

3. Conclusions

This article presents an empirical investigation of the use of metonymy and metaphor in the EFL students' descriptive essay writing, focusing upon i) the identification of metonymy and metaphor in the students' essays and upon ii) the comparison of the use of metonymy and metaphor between two groups of EFL students, an intermediate group and an advanced one. The results of the essay analysis have revealed that the essays written by the intermediate group are marked by the presence of metonymy (the total number per group is 13), rather than metaphor (the total number is 8 per group). The predominance of metonymy over metaphor in the intermediate group's essay writing is in concert with previous research findings (MacArthur, 2010; Haghshenas & Hashemian, 2016), which indicate that the usage of metonymy rather than metaphor is associated with the intermediate level of EFL proficiency.

The findings of the present empirical investigation reveal that the advanced level of EFL proficiency is associated with a substantial occurrence of both metaphor (the total number per group is 17) and metonymy (the total number per group is 15). Arguably, the presence of both metonymy and metaphor in the advanced group's essays contributes to an argument that EFL essay writing involves a sense of empowerment and aesthetic richness (Horowitz, 1990) afforded by the creative writing task. Given that the advanced group has produced descriptive essays characterised by the instances of metaphor and metonymy, it can be concluded that the advanced EFL group in this study used both metaphor and metonymy, which constitutes '*a real mark of the competent learner*' (Littlemore, 2012, p. 16). However, using metonymy may be a sign of overgeneralisation and a lack of precision. Obviously, more research is needed to ascertain the link between the use of both metaphor and metonymy and the students' EFL proficiency level.

In contrast to the advanced group, an insignificant number of metaphors has been identified in the intermediate group's essays. This finding could be taken to indicate that the production of metaphors in descriptive essay writing is associated either with difficulties on the part of the students at the intermediate level of EFL proficiency, or insufficient awareness of the use of figurative language as a means of descriptive essay writing. Consequently, this finding provides further support to previous research by Caballero (2003), who posits that the use of metaphors in EFL writing should be addressed in a typical EFL curriculum design in order to facilitate the students' awareness of figurative language in EFL writing.

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Didactic potential of metaphors used in medical discourse

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Abstract

Specialist languages should be straightforward and unambiguous. In areas such as law, business or medicine precision and to-the-point wording is required. However, in order to facilitate the description of complicated matters, and especially in expert to non-expert communication, unexpected strategies, e.g. metaphorisation, are used. Conceptual metaphor theory, as initially introduced by Lakoff and Johnson (cf. Lakoff & Johnson, 1980) states that human beings tend to think in metaphors, i.e. we are engaged in constant search of similarities between concepts. This drive for pattern recognition helps us understand the unknown in terms of the familiar, the abstract in terms of the concrete. Most conceptual metaphors are grounded in our physical experience of the world, which means that we draw from this familiar experience while creating metaphorical mappings to the complex, abstract concepts. Controversial as it may seem, the same process applies to understanding professional terms and scientific notions, and as a result the language of law, business, medicine, etc. is heavily metaphorical in nature. In our presentation we focus on medicine alone and analyse a corpus of medical text in search of conceptual metaphors. We claim, that rather than obscuring the message, metaphors actually make it clearer and more precise. They enrich conceptualisation, structure the semantics of the message and serve a number of pragmatic functions, esp. in doctor to patient communication. By choosing a certain metaphor, the message may e.g. be softened in order to lessen the impact it has on the recipient. Moreover, it may be more easily understood if it is built on an adequate conceptual metaphor. Many metaphors used in the medical discourse are based on multimodal representations e.g. descriptions of diseases often invoke the imagery of food including its shape, colour, texture, and smell. Such multimodality of representation (cf. Forceville, 2009 and online) engages a number of cognitive faculties for the construction of a complex conceptualisation and in this way helps us gain better understanding of the concepts described. We claim that conceptual metaphor and esp. pictorial metaphor is a very effective tool used in didactics and its use is perfectly justified in scientific discourses, including the medical discourse. Therefore, in our presentation we analyse pictorial metaphors found in medical discourse and in the field of radiology in particular.

Keywords: specialist language, conceptual metaphor, didactics, medicine

Part 1 – Theoretical considerations

Conceptual metaphor

Lakoff & Johnson's (1980) milestone book and their later works have led to the proliferation of publications related to the conceptual metaphor. They have liberated the metaphor from the constraints of literary studies and therefore it ceased to be perceived as a mere stylistic device. The conceptual metaphor, understood as a way of thinking, is pervasive in every-day language. It helps us structure our thoughts, especially when they are related to complex and abstract concepts, by drawing similarities between the familiar and the unfamiliar. It takes two domains, matched on the basis of their perceived similarity, for a metaphor to come into being. These domains, labelled the source and the target domain, pertain to the concrete and the abstract concept respectively. Our mind's unique ability to immediately recognise patterns and similarities makes it possible for metaphorical mappings to take place. This process occurs at the conceptual level. The model can be represented pictorially in the following way:

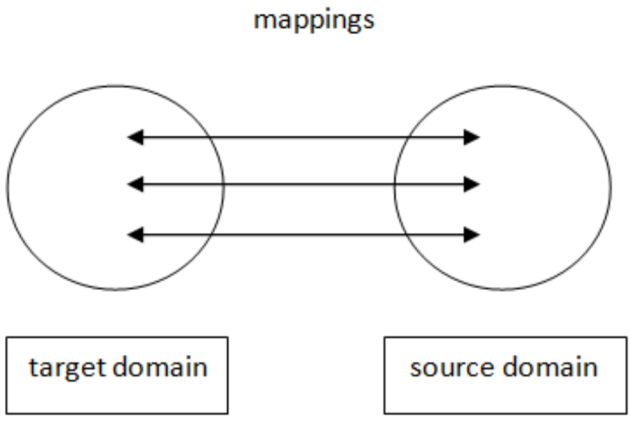


Figure 1: *Conceptual Metaphor Model*

The target domain is the abstract one and is related to concepts such as time, emotions, human relationships, life, death, morality, and thought. Possible examples of the source domain, i.e. the more concrete domain include: human body, animals, plants, buildings, machines, money, and food. There has to be a degree of similarity between the two domains so that it is possible to draw correspondences between them. The following illustration constitutes a common example of a metaphor: +ECONOMY IS A PLANT+ where possible mappings include +SECTORS ARE BRANCHES+, +PROSPERITY IS FLOWERING+, +PROSPERITY IS GROWTH+, +CRISIS IS WITHERING+ and may be linguistically manifested in expressions such as: *blossoming economy, green shoots of economy, flourishing period, GDP withered by 0.5%.* Referring to the knowledge of the familiar, concrete, and every-day concepts in order to facilitate understanding of the more complex and abstract ones involves "borrowing" the terminology from the source domain for the description of the target domain.

Although the two domains are conceptual, they manifest themselves in many different ways. The most common and at the same time the most commonly studied are linguistic

metaphors, however, e.g. Forceville (1996) introduces the concept of pictorial metaphor and Forceville & Urios-Aparisi (2009) provide a compelling argument for metaphors across gestures, sounds, music, and other modes. What is more, studying the contribution of other types of stimuli (e.g. visual or auditory) on meaning construction has been gaining ground in cognitive linguistics. Such a variety of stimuli has been referred to as multimodality in cognitive linguistics (Pinar Sanz, 2015). Defining a "mode", though, is a difficult task. Says Forceville:

> In order to be able to use the concept "mode" for metaphors, it will first be necessary to characterize it more precisely. The instantiations of "mode" just given (pictures, language, music, sound, smell, touch) all pertain to the senses. A convenient strategy would therefore be to equate modes and senses, yielding the pictorial, the sonic, the olfactory, the tactile, and the gustatory mode. However, this would mean lumping together sources of information that are habitually distinguished: while we smell smells, taste tastes, and touch surfaces, we see both written language and pictures, while we hear spoken language, music, and sounds. For one thing, this means that language can be both perceived visually and aurally. I propose there is good reason to do justice to the important differences between these two manners of perception by giving the status of a different mode to "written language" and "spoken language." After all, oral and written text rely on very different conditions of understanding. (Forceville, 2009, online)

Thus, metaphors whose domains are rendered in one mode, i.e. they are based on one type of stimulus, (be it language, picture, or music) are referred to as monomodal, whereas "metaphors whose target and source are each represented exclusively or predominantly in different modes" (Forceville 2006, p. 384) are multimodal. The interest in the interplay between different modes of communication is not new, though. The relevance of extra-linguistic factors such as the tone of voice, intonation pattern, gesture accompanying speech, as well as facial expression and body language in general, has been present in the fields of psychology and semiotics, to name just the two. For instance, Kita (2009) analyses cultural differences in gesture interpretation, esp. in reference to the metaphorical aspect of iconic gestures. Duncan et al. (2007) offers a view on the essential role of gesture in dynamic language creation and treats gesture as a part of language, rather than extra-linguistic phenomenon. McNeil (1992) goes a step further and postulates that gesture is an integral part of our cognition and has implications on the way we think. This is also found in Goldin-Meadow (2003) and supported with experimental data.

The metaphors that we analyse in the present paper operate, as if, across two theories: Lakoff and Johnson's conceptual metaphor and Forceville's pictorial metaphor. We try to bring these two theories together in order to provide an exhaustive analysis of the problem. Lakoff and Johnson's conceptual metaphor theory is pivotal for our research. Thus, we accept that:

> The metaphor is not just a matter of language, but of thought and reason. The language is secondary. The mapping is primary, in that it sanctions the use of source domain language and inference patterns for target domain concepts. The mapping is conventional, that is, it is a fixed part of our conceptual system, one of our conventional ways of conceptualizing love relationships. This view of metaphor is thoroughly at odds with the view that metaphors are just linguistic expressions. (Lakoff 1992, online)

As stated above, metaphor is the conceptual layer underlying language, picture, or other modes, which are just surface representations of concepts. We build our argumentation on the structure of Lakoff and Johnson's two-domain model and the terminology that we employ is in line with theirs. However, conceptual metaphor theory as proposed by Lakoff and Johnson aims to show the conceptual structure underlying mainly the linguistic structure. This is insufficient for our research. Forceville's pictorial metaphor, on the other hand, deals exclusively with visual inputs, which is also too limiting, even though Forceville (1996) refers to Black's (1954; 1979) interactional theory of metaphor and claims that:

> The cognitivist paradigm insists that verbal metaphors are manifestations rather than reduplications of thought, and thereby forcefully suggests that thought can give rise to non-verbal or multimodal metaphor. However, the cognitivist paradigm hitherto largely disregards the non-verbal. Examination of non-verbal representations should help further substantiate (or cast doubt upon) elements of the already extensive body of research based on verbal representations of metaphor. (Forceville 2007, online)

For these reasons, we propose a unified view in which conceptual metaphor theory, coupled with pictorial metaphor theory, provides a new tool for analysis. We claim that although the final outcome is linguistic, the processes that lead to its creation are of different nature. Metaphors used in medical discourse are constructed on the basis of visual input. This primary visual input (microscopic images, radiological data, visual examination of patient's symptoms, etc.) undergoes a number of cognitive processes, the most important of which is pattern recognition and our ability to automatically notice similarities between concepts and link the new income to the information already stored in our memory (Rizutto, 2001). Then, such synthesised primary input is converted into secondary mental imagery. The last stage is the conversion of the secondary mental image into resultant linguistic expression. Thus, we "translate" a vague, mysterious medical image into a familiar one, which we eventually describe in metaphorical terms. The whole process is represented in the diagram below:

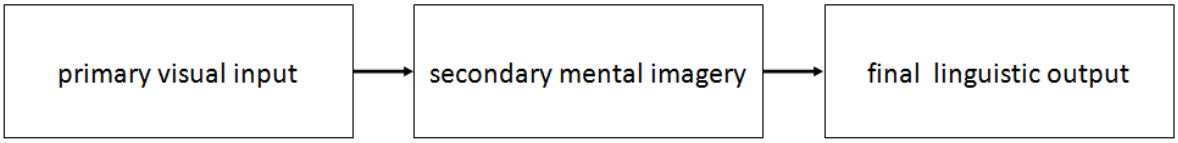


Figure 2: *Creation of a metaphorical expression*

We will employ the above diagram in order to analyse a number of selected metaphors in the analytical part of the paper. It needs to be emphasised, however, that the metaphors under analysis are indeed conceptual, but not pictorial in Forceville's terms. Visual, i.e. pictorial input is reconceptualised into analogous mental representation involving familiar imagery and then expressed linguistically. Thus, we propose a new notion of **multiconceptual metaphor** for a metaphor which arises out of the visual input, is synthesised in the conceptual system and results in the linguistic output.

The diagram illustrates the path that a conceptualiser has to go through in order to arrive at the linguistic result. In other words, in the didactic process, it represents the teacher's perspective. Primary visual input is scanned in the search for familiar analogies and yields a metaphorical result which surfaces in language. However, where the teacher's role ends, the learner's role begins. Thus, the learner has to "decode" the metaphor by visualising the image created in language and then apply the familiar image to the unfamiliar data. In the following part we investigate advantages of this seemingly complicated process.

Metaphor in specialist discourse and teaching

Before the advent of the conceptual metaphor, metaphors used to be ignored by serious linguists and thinkers. Say Lakoff and Johnson:

> Literal language, assumed to be mutually exclusive with metaphor, has been taken to be the real stuff of philosophy, the domain where issues of meaning and truth arise and can be dealt with. At best, metaphor is treated as if it were always the result of some operations performed upon the literal meaning of the utterance. (Lakoff & Johnson 1980b, p. 453)

However, the new theory resulted in the change of attitudes. Conceptual metaphor has become recognised and appreciated as both explanatory and constitutive mechanism in scientific discourses. Its use in specialist discourse has been approached from a number of perspectives. Zawisławska (2011) introduces the metaphor in scientific discourse, especially in natural sciences. Sontag (1978; 1988) investigates the importance of a careful choice of metaphors in medical discourse and its consequences on social perception of diseases. Also Tajer (2013) discusses how disease and other abstract medicine-related concepts are structured metaphorically. 2015 saw the publication of Herrmann and Sardinha's collection of ten articles investigating the use of metaphor across specialist domains such as biology, psychology, sports, and the penal system. Herrmann (2013) also provides a detailed analysis of the metaphor in academic discourse. For metaphors in newspapers see e.g. Krennmayr (2011).

The role of metaphors in didactics cannot be overestimated. It has been recognised in many specialist areas such as biology. Kashkan et al. (2015) discuss the usefulness of metaphors in teaching biology and medicine in pre-university programs for international students. Kanthan and Mills (online) investigate the importance of metaphors, analogies, and similes in teaching pathology. They proved that using these types of figurative language not only made the learning process more effective, but also "the unexpected impact of creating visual metaphors had a unique potential for improving recall of information". More on metaphors in pathology is found in e.g. Bewtra (1996), Kumar & Kumar (1994), Batistatou et al. (2000). Using "alimentary metaphors" in the general context of teaching medicine is discussed in Hunter (1998). Numerous examples of analogies found in metaphorical descriptions in medical texts are provided by Pena and de Souza Andrade-Filho (2001; 2010). They make use of Lakoff & Johnson's (1980) terminology related to conceptual metaphors while describing knowledge already possessed by the learner as "the source" and knowledge to be achieved as "the target". They recognise that similarities, on which metaphors are based, "are important in naming,

categorizing and classifying, and play a role as learning and memorizing tools". Consequently, they are also used in creating medical nomenclature. Lakhtakia (2014) describes the use of food imagery in medical learning. Terry and Hanchard (1979) investigate the use of culinary terms in gastrology. Milam et al. (2015) study culinary metaphors in dermatology referring to such aspects of food as its colour (*port wine stain*, *café au-lait molecules)*, texture (*peau d'orange skin)*, and smell (*grape-like scent)*. Also, Wynia (1995) gives an interesting overview of the selection of culinary metaphors used in medical discourse classifying them into thematic categories. We found there e.g. *pizza-pie retina*, *sunflower cataracts* and *cauliflower ear*. For "food signs" (such as: *apple core lesion*, *berry aneurysm pear shaped bladder* or *sausage digit*) in radiology consult Roche et al. (2002). Masukume (2016) presents an overview of food analogies used to describe microscopic images of cells. He stresses the didactic value of such metaphors, as they help memorise shapes necessary for the recognition of signs and make the diagnosis more effective. He enumerates e.g.: *coffee bean nuclei*, *doughnut cell*, *oat cell carcinoma*, *popcorn cell*, *herringbone pattern*, *grape bunches*, *fried egg nuclei*, *tart cell*, *banana shaped gametocyte*, *banana bodies*, *drumstick appendage*, *bite cell*, as well as *salt and pepper chromatin*, imagery which bear clear visual similarity to foods used in metaphors.

The role of metaphors as didactic tools is essential. However, similarly to conceptual metaphor in medical and other specialist discourses in general, didactic metaphor may be a mixed blessing. On the one hand, metaphors facilitate our understanding of the world and complex problems related to specialist areas. On the other, the choice of metaphors has overarching consequences. A hastily coined metaphor may not only inhibit a successful doctor-patient communication (Carter, 1989), but also deform the data in teaching. Masukume & Zumla (2015) put emphasis on the increasing use of standardised medical textbooks, written in English and by British authors, in Africa. British terminology and especially the choice of metaphors which may indeed facilitate the task of learning and memorising among some students, is inaccessible for students from different cultures. Teaching with the use of metaphors which are not "locally or culturally relevant", the authors say, should be reconsidered, or a set of standard, culturally-neutral metaphors should be collected and used in specialised textbooks instead. Nonetheless, undoubtedly:

> Metaphors relating to familiar analogous items make recognition easier in anticipation of the clinical counterpart when encountered in medical practice and serve as teaching aids, enhancing memory retention for medical students, nurses and doctors. (Masukume & Zumla, 2012, p. 1)

The same concern was raised as early as in 1992 by Ahmed et al. whose research showed "that the vast majority of medical students and young resident doctors are not familiar with many of the European foods, fruits and beverages that are commonly used in medical textbooks to describe disease conditions".

Spiro et al. (1989) warn against oversimplification of constructing complex concepts using single metaphors and analogies. They claim that many misconceptions held by medical students may arise from relying on single analogies rather than multiple ones. They provide examples from the biomedical field to prove their point and conclude "that analogies must be used with

great caution. Even when they are used judiciously to initiate learners into a difficult subject area with appropriate caveats about their limitations, reduction of the topic domain to the source domain appears to be a too common occurrence" (Spiro et al., 1989, p. 18).

Regardless of the occasional problems they may cause, the role of metaphors in didactics has been widely recognised. Carter & Pitcher (2010) discuss the role of similarity as well as dissimilarity between domains in metaphorical comparisons. They claim that metaphors used in teaching sciences enhance student engagement, increase student analytic and syntactic skills, and very often provide the language for scientific discussion. They also second Lakoff & Johnson (1980) view of a metaphor as a conceptual phenomenon:

> When metaphors are used in science they are part of a way of thinking; they function as structure maps between two different, complex systems. Thus it is not the nouns of the metaphor (e.g. 'water') but the inherent verbs (e.g. 'flows') that convey the most significant meaning. (Carter & Pitcher, 2010, p. 581)

Mouraz et al. (2013) investigates the role of metaphor in higher education, esp. in teacher-student communication and the transfer of knowledge. The use of metaphors as a teaching resource:

> (...) is justified because teaching is also translating knowledge to make it accessible to students and metaphors serve this purpose well. (...) From the perspective of students, this justification finds its correlation in the effectiveness of pedagogical mediation of metaphors, which mobilizes motivation, better and faster understanding as appropriate indicators of their demonstration. (...) The use of metaphors does not relieve students from an effort to understand, requiring an active attitude of interpretation. Metaphors' uses require listeners to reflect both on cultural context and in a critical dimension. (Mouraz et al., 2013, pp. 105-106)

Littlemore & Low (2006) stress the importance of metaphorical thinking for foreign language learning and claim that figurative thinking is indispensable for reasoning in general. "Metaphorical competence", i.e. being fluent in using and recognising metaphors can be taught, and this is also supported by Bobrova & Lantolf (2012). Canziani (2016) proves that introducing cognitive linguistics approach to metaphor leads to more productive teaching in medical education.

Skorczynska (2013) provides an overview of metaphors used in educational contexts, focusing mainly on oral interaction, lectures and presentations. She recognises the fact, that "metaphor has for long been used to successfully facilitate education, fulfilling a number of functions such as creating new perspectives, enabling categorization or aiding memorization" (Skorczynska, 2013, p. 2345). Apart from the explanatory function, "the use of metaphoric analogies has been pointed out as an essential aspect of academic discourse and practice, especially in the creation of theories" (Skorczynska, 2013, p. 2345).

Methodology and data

In the present paper we focus on the didactic potential of metaphors used in medical discourse, paying special attention to pictorial metaphors which make the learning process more effective.

We make use of numerous examples found in specialised literature listed in references, as well as dedicated online resources such as foodmedicaleponyms.blogspot.com

Due to the limitations of space we restrict the scope of data to pictorial metaphors from the "culinary" domain. However, we also briefly enumerate other metaphors, pictorial or otherwise, commonly used in medical discourse as well as metaphors which, due to the graphic imagery that they evoke, serve as effective teaching aids.

Part II – Data analysis

Selected conceptual metaphors in medical discourse

+HEALTH IS UP, ILLNESS IS DOWN+

One of the most basic metaphors underlying numerous expressions found in medical discourse is an orientational metaphor based on UP-DOWN image schema. Orientational metaphor:

> does not structure one concept in terms of another, but instead organizes a whole system of concepts with respect to one another. We call them "orientational" metaphors because most of them have to do with spatial orientation: UP-DOWN, FRONT-BACK, ON-OFF, DEEP-SHALLOW, CENTRAL-PERIPHERAL. These spatial orientations arise from the facts that we have bodies of the sort we have and that they function as they do in our physical environment. (Lakoff & Johnson 1980b, pp. 461-462)

It can be represented as +HEALTH IS UP, ILLNESS IS DOWN+ where being "up" is associated with upright posture of a healthy individual and "down" with a stooping posture or lying down. This metaphor finds its reflection in numerous fully conventionalised expressions such as *to fall ill*, *to feel down*, *to feel low*, *to go down with a flu*, *to sink into a coma*, *to succumb to an illness* as well as *to be in top condition*, *to bounce back*, *to be back on one's feet.* This metaphor is inextricably linked with +GOOD IS UP, BAD IS DOWN+ metaphor which even strengthens the negative connotations already present in the expressions above.

+DISEASE IS A PHYSICAL OBJECT+

One of the main conceptual metaphor mechanisms is presenting the abstract in terms of the concrete. Not surprisingly we find expressions built on +DISEASE IS A PHYSICAL OBJECT+ metaphor which, as if, reifies a disease, which is an exceptionally abstract phenomenon. A disease does not exist independently of the patient, and can only be characterised as an abnormal condition of the patient's body, a set of symptoms that the patient exhibits and possibly the pathogens that cause it. In order to facilitate our conceptualisation of this abstract

phenomenon, expressions referring to concrete, physical objects are used. First and foremost we can *have* or *get diseases*, also *carry*, *pass on*, *spread* or *transmit* them.

+DISEASE IS AN ANIMATE OBJECT+

Apart from being reified, diseases can also be presented in animated or even personified ways. We can *catch a disease* as if it were a living, or at least moving object. A disease may be metaphorically represented as a dangerous animal *devouring*, or *eating us away*. They *attack us*, *are lurking in our DNA* or *running in families.* They can be described as *treacherous*, *insidious*, *tricky*, *merciless*, *cruel*, *ruthless*, *evil*, *aggressive*, *malignant* and *benign* to mention just a few of human characteristics ascribed to the disease based on those metaphors.

Describing the abstract in terms of the concrete and the unfamiliar in terms of the familiar is used in order to make understanding the problem easier. The disease is conceptualised as a living, moving creature possessing animal or human-like features. At the same time, we make use of our embodied experience in order to leave no doubts about the status of the disease as an abnormal and "lowly" creature. These are the relatively basic strategies which enable us to comprehend an otherwise elusive concept, but among the metaphors in medical discourse we find much more elaborate scenarios with multiple mappings. Among them, we find for instance:

(i) +MEDICINE IS A GARAGE+ metaphor, which gives rise to mappings such as: +DOCTOR IS A MECHANIC+, +PATIENT IS A CAR+, +HEART IS A PUMP+ and they, in turn, are expressed linguistically in e.g. *heart valve*, *to fix a problem*, *broken part*.

(ii) +MEDICINE IS ART+ in which we find mappings such as +DOCTOR IS AN ARTIST+, +PATIENT IS A PIECE OF ART+, expressed linguistically in e.g. *the art of medicine*, *to perform an operation.*

(iii) +MEDICINE IS A CONSTRUCTION SITE+ whose mappings include: +DOCTOR IS A BUILDER+, +HUMAN BODY IS A BUILDING SITE+, +DOCTOR IS A PLUMBER+, +CORONARY ARTERY DISEASE IS CLOGGED PIPES+ manifested in expressions such as: *cell wall*, *palisade cells*, *duplex DNA*, and *DNA library.*

(iv) +MEDICINE IS AGRICULTURE+ metaphor with mappings such as: +DOCTOR IS A FARMER+, +PATIENT IS A CULTIVATED FIELD+, +DISEASE IS INFESTATION+ found in: *bone marrow harvest*, *bone marrow graft*, *tumour seeding*, *sickle cell*, *oat cell carcinoma*, *radiation seeds*, *bone marrow transplant*, *stem cell*, and *dorsal root ganglion cell.*

(v) +MEDICINE IS A BUSINESS+ where: +DOCTOR IS A BUSINESSMAN+, +PATIENT IS A CUSTOMER+, +DRUGS ARE GOODS+ as expressed in: *free health care*, *paid services*, *special package*, *health coverage* (Slumasy, 1993).

(vi) +MEDICINE IS A JUDICIAL SYSTEM+, mappings: +DOCTOR IS A DETECTIVE+, +MEDICAL DATA IS EVIDENCE+, +DISEASE IS A SUSPECT/CRIMINAL+. +DIAGNOSIS IS A JUDGEMENT+, linguistic manifestations: *mysterious disease*, *molecular sleuthing*, *diagnostic clue*, *chemical footprinting*, *a physician may suspect hairy cell leukemia*, *cancer surveillance*, *circumstantial evidence of cancer*, *culprit coronary lesion*, *accused of giving cerebral postpartum angiopathy*, *vessels interrogated*, *testimony to the safeguards*, *data can testify*,

incriminating evidence, *verdict on DDT*, *jury*, *exonerate it as a pathogen*, *incriminates as a causes of aplastic changes.*

(vi) +MEDICINE IS WAR+, mappings: +DOCTOR IS A SOLDIER/GENERAL/ALLY+, +PATIENT IS A CIVILIAN/SOLDIER/TERRITORY/ENEMY+, +DISEASE IS AN ENEMY/KILLER+, +DRUGS ARE WEAPONS/AMMUNITION+, expressions: *to battle cancer*, *to fight infections*, *to combat diseases*, *big gun antibiotics*, *an outbreak of disease*, *an invasion of cancer cells*, *magic bullet (an ideal drug)*, *flare-up of a disease.*

(vii) +MEDICINE IS GEOGRAPHY+ and +HUMAN BODY IS THE GLOBE+, found in expressions such as: *vascular lake*, *vascular waterfall*, *metastatic cascade*, *carpal tunnel*, *ciliary valley.*

In some of the metaphorical scenarios enumerated above, the perceived similarity between the two domains is based on their visual aspect. Nonetheless, metaphors which have gained exceptional popularity in the field of medical didactics, and esp. in radiology are the "culinary" metaphors. They will be discussed separately in the following section of the article.

Multiconceptual metaphors in radiology

The importance of pictorial metaphors is especially transparent in a field of radiology which is inherently based on analysing and describing visual materials. The employment of pictorial metaphors is highly justified due to a number of reasons. Radiology as a very dynamically developing medical discipline requires effective learning techniques, and mnemotechniques based on recognising similarities and analogies between images can be very helpful. These pictorial metaphors are used in radiology to name and help memorize things visible on diagnostic images, so that they are clear not only to other radiologists but also to other physicians (Baker, 2014). Metaphor as a learning tool creates connection between the new and the familiar; to facilitate this connection metaphors usually reach beyond the sphere of medicine (Baker & Partyka, 2012).

> How do we learn in radiology? We know that the pictorial patterns we observe with any imaging technique reflect anatomy but do not perfectly reproduce it. Intrinsic to any energy source that produces an image are accentuations and obscurations that must be taken into account. Therefore, to help us come to terms with these limitations, we seek associations from reference images that are common to our experience but outside the realm of anatomy. (Baker & Partyka, 2012, p. 236)

The use of metaphors in medical didactics can be also treated as an enhancement technique, as metaphors boost attention and sensitivity to sign and pattern schemas which could otherwise be easily missed. Baker & Partyka (2012) provide a convincing argument for the importance of metaphors in radiology, comparing the numbers of metaphors found in radiology and other medical fields. They find that radiology is the only field in which the metaphoric expressions outnumber eponymous ones. They provide a table with numerous examples worth including here in its entirety:

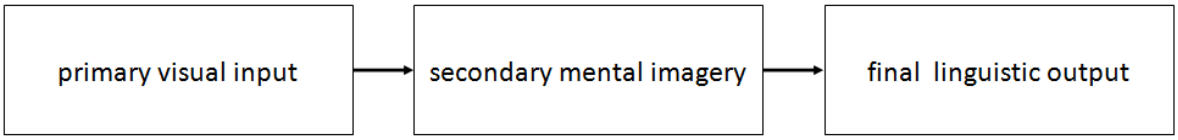
Table 1: *Examples of Metaphoric and Eponymous Signs in Radiology (Baker & Partyka, 2012, p. 238)*

anatomy	metaphoric	eponymous
gastrointestinal	bird's beak sign, corkscrew sign, Doge's cap sign, Phrygian cap sign, football sign, Mercedes-Benz sign, apple core lesion, epicenter sign	Rigler sign, Schatzki ring, Carman meniscus sign
musculoskeletal	blade-of-grass sign, celery stalk sign, picture frame sign, pencil-in-cup sign, rugger jersey sign, salt-and-pepper skull, sandwich vertebra, shepherd's crook sign, gull wing sign, inverted Napoleon hat sign	Wimberger sign, Hill-Sachs lesion, Hawkins sign, Codman triangle, Haglund deformity
thoracic	boot-shaped heart sign, egg-on-a-string sign, finger-in-glove sign, halo sign, Luftsichel sign, signet ring sign, snowman sign, tree-in-bud sign, sail sign	Sign of Golden, Westermark sign, Hampton hump
genitourinary	cobra head sign, drooping lily sign, ball-on-tee sign, keyhole sign, lobster claw sign, spaghetti sign, fish-hook ureter, comet sign, bear paw sign, balloon-on-a-string sign	Bergman coiled catheter sign

However,

> The proliferation of metaphoric signs in radiology does not mean that all of them will resonate equally well with earners. Neuroscientific research has shown that emotions have a critical and inseparable impact on cognition (Eviatar & Just, 2006). To be successful, a metaphor must establish a connection that stimulates vibrant emotional reaction as the reader or viewer becomes aware of its freshness and thereby its power to instruct. Thus, the reference must not be so obscure that its original meaning is not immediately recognizable. Also, the content of a radiologic finding and the subject alluded to should bring to mind similar scenarios, even though they emanate from different epistemologic systems. (...) Metaphors are grounded in experience. The strength and relevance of a metaphor depend on how familiar the interpreter is with the experience alluded to by the metaphor (Baker & Partyka, 2012, p. 239)

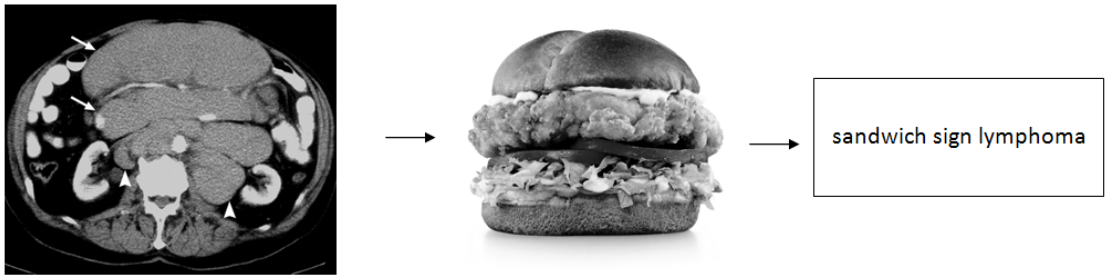
Below, we will analyse a number of examples of, what we call, "culinary metaphors", i.e. ones based on, e.g. +MEDICINE IS COOKING+, +MEDICINE IS A KITCHEN+, +MEDICINE IS A GARDEN+ metaphorical scenario. The analysis is based on a model repeated here for convenience:



(1) *port wine stain*

(2) *popcorn cell*

(3) *sandwich sign lymphoma*



Other examples include:

a) anatomic structures, e.g.: *pancake vertebrae*, *sandwich vertebrae*, *pancake brain*, *mulberry molars*, *blackcurrant rash*, *cauliflower ear*, *coffee with milk spots*,

b) microscopic images, e.g.: *kidney-bean shaped intracellular diplococcic*, *coffee bean nuclei*, *doughnut cell*, *oat cell carcinoma*, *herringbone pattern*, *fried egg nuclei*, *tart cell*, *banana shaped gametocyte*, *banana bodies*, *drumstick appendage*, *salt and pepper chromatin*, *Swiss cheese endometrium*, *bite cell*, *cornified cells*, *herringbone pattern*, *raisin like nucleus*, *grape bunches (Staphylococcus)*, *berry aneurysm*.

Conclusion

In the present paper we propose a unitary approach which brings together Lakoff and Johnson's conceptual metaphor theory, and Forceville's pictorial metaphor. We construct a model which can be applied to analyse visual analogies found in medicine in the light of cognitive science. We propose a different view on the pictorial metaphor and multimodality, which, to clarify terminological confusion, we refer to as multiconceptual metaphor. In this view, multimodality does not equal the coexistence of two different modes within one metaphor, but rather understanding one mode in terms of another. We investigate this transfer of information from the visual mode, through the conceptual system, to language. We show a selection of data which highlight the advantages of using metaphors in specialist discourse, didactics in general, and teaching medicine in particular. Radiology is one of the medical fields which benefits most from the employment of metaphors. Visual metaphors used in radiology provide a convenient language of description and useful tool which enhances memorising certain symptoms and signs and as a result, make both diagnosis and learning more effective.

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Compositional analysis of interrogative imperatives in Hungarian

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Abstract

The paper investigates utterances which combine imperative and interrogative elements in Hungarian. We intend to explore the scope of the hypothesis that the pragmatico-semantic content of mixed-type sentences can be obtained compositionally. We present four types of interrogative imperative. The imperative factor is indicated by subjunctive morphology on the verb. The interrogative character is represented by (1) rise-fall intonation which marks polar questions, (2) the discourse marker *ugye* expressing bias, (3) the particle *vajon* expressing self-reflection or hesitation, and (4) wavy intonation which indicates surprise. We claim that such sentences are primarily questions with their main function being 'request for instruction'. For the analysis, we take a formal pragmatico-semantic point of view. Our goal is to demonstrate how these sentences can be analyzed compositionally within a belief–desire–intention frame. We apply the formal dynamic discourse- and mind-representation theory ℜeALIS. We have found that the pragmatico-semantic content (*intensional profile*) of each type can be constructed via using two formal operations: concatenation and pragmasemantic blending. The composition produces the required output, namely that the interrogation / bias / speculation / surprise which pertains to an eventuality in the case of a simple question, pertains to the "commanding" of this eventuality in the case of interrogative imperatives.

Keywords: pragmatico-semantic analysis, belief–desire–intention framework, discourse representation theory, discourse markers

This paper investigates utterances which combine imperative and interrogative elements in Hungarian. We intend to explore the scope of the obvious null hypothesis that the pragmatico-semantic content of mixed-type sentences can be obtained *compositionally* in a well defined sense which requires innovative ideas in pragmatics.

Interrogative imperatives are typically used for requesting instruction as to whether the addresser should do something or not. This function is best carried out by the basic type of interrogative imperative, which has rise-fall intonation used for marking a polar question, along with subjunctive morphology on the verb indicating imperative content. We demonstrate that the meaning of this sentence type can be constructed compositionally as the combination of the meanings of the basic polar question and the basic imperative sentence type. Furthermore, we

present three additional types of interrogative imperative which carry out slightly different functions. We examine the addition of the discourse marker *ugye* expressing bias, the particle *vajon* expressing self-reflection, and a non-standard, wavy intonation pattern indicating surprise.

For the analysis, we apply the formal dynamic discourse- and mind-representation theory ℜeALIS, in which – along with the external world – the interlocutors' internal worlds (mind states) are also represented. We use two formal operations, *concatenation* and *blending* between the *intensional profiles* of the components which encode the interlocutors' beliefs, desires and intentions when uttering these sentences. As a result, we will reach a position to be able to construct the pragmatico-semantic contents of the four types of interrogative imperative. The analysis accounts for the intuition that these sentences can be regarded as questions which are targeted at the commands in them. With simple polar questions, the addresser wants to know if an eventuality is true or false, whilst with interrogative imperatives, the question pertains to the "commanding" of an eventuality: the addresser inquires whether the addressee wishes/intends the addresser to carry out a particular action.

The paper is organized as follows. First, we present the data: four types of interrogative imperative in Hungarian, their relevant formal features, and their prototypical functions. Then we briefly introduce ℜeALIS, the framework applied, concentrating on the relevant features and the formalism. This is followed by the formal analysis of interrogative imperatives. We present the pragmatico-semantic content of the components from which these sentences are built up, and then the process and the outcome of the composition.

Interrogative Imperatives in Hungarian

Literature Review

There are very few literature on interrogative imperatives in Hungarian. Turi (2009) mentions them briefly while arguing that Hungarian grammar includes a subjunctive mood. He claims that these *instruction-seeking questions* (as he calls them) can or cannot contain an imperative operator, which is responsible for the two possible word order variants. Varga (2013) discusses the subject in slightly more detail in her thesis about the syntax of Hungarian imperative sentences. She claims that they contain both interrogative and imperative operators with the former having scope over the latter. Both papers mention only the basic type, and their interest is mainly syntactic. In this paper, we examine these sentences more thoroughly, and primarily from a pragmatico-semantic point of view focusing on their meaning and usage.

The Data

Interrogative imperatives are mixed-type sentences which combine interrogative and imperative elements. The verbs all contain the suffix *-j* traditionally called imperative mood marker in Hungarian. We follow Turi (2009) and Varga (2013) in assuming that only subjunctive mood exists at the level of morphology; and imperative is encoded at the level of

syntax. This claim is supported by the fact that imperatives have a full paradigm in Hungarian, meaning that the verb can be conjugated in every person and number, contrary to many languages, like English for instance, which use auxiliary verbs (e.g. *should*) for non-second-person imperative verb forms (we will give a few examples later on). In interrogative imperatives, subjunctive morphology occurs with question-like elements: characteristic intonation patterns and/or discourse markers. In this paper, we examine the presence of the basic rise-fall intonation which marks polar questions, the discourse particle *ugye* which expresses bias (leading questions), the discourse particle *vajon* which expresses self-reflection ('I wonder…'), and a non-standard, wavy intonation pattern which indicates surprise.

As their main function, they all express a request for instruction – at a certain level (to be elaborated on). They are basically questions targeted at the commands in them inquiring whether one should do something or not. Let us discuss the four types one by one, starting with the basic type where the subjunctive verb form appears in a plain polar question characterized by rise-fall intonation and no discourse markers. This is followed by the presentation of three additional types where the interrogative component is somewhat marked: they are indicated by discourse markers or a non-standard intonation.

The Basic Type: Subjunctive Morphology with Rise-Fall Intonation

The first type of interrogative imperative we discuss has a subjunctive verb form; it is marked by a rise-fall intonation pattern (where the rising pitch is on the second-to-last syllable); and it does not contain discourse markers. It is the combination of the basic polar question and the basic imperative sentence type (1).

(1) Subjunctive + rise-fall intonation (typically used with polar questions)

a. Hívjunk / ??Hívjál segítséget?
call.Sbjv.1Pl call.Sbjv.2Sg help.Acc
'Should we / ??you call for help?'

b. Fel-hívjam / (?)Hívjam fel Marit?
vm-call.Sbjv.1Sg call.Sbjv.1Sg vm Mari.Acc (vm: verbal modifier)
'Should I call Mari?'

The preferred verb form for this type is the first person singular or plural, while there is a strong dispreference against the second person forms, especially in singular (1a). This is a reversed preference compared to interrogatives and imperatives: with questions and commands, the second person is preferred, and the first person is dispreferred, at least with the basic types (more on this matter in the analysis section). The verbal modifier can both precede and follow the finite verb (1b); though the nuclear word order (verbal modifier–verb) sounds a slightly more neutral.

As for its function, it is the default type used for requesting instructions. It means something like 'I want to know your desires/intentions regarding eventuality e'. The expected answer is *igen* 'yes' or *ne* 'no' in Hungarian, which is an argument for the claim that these

utterances are primarily questions. The imperative content is indicated by the use of the *ne* form of the negation word instead of the declarative *nem* 'no'.

This basic type has been briefly discussed in the Hungarian literature. Varga (2013) uses the term *interrogative imperatives*, while Turi (2009) refers to them as *instruction-seeking questions*. They both agree that these sentences can be categorized as interrogatives which also have a directive component. They claim that – at the level of syntax – the two different word orders distinguish (real) imperatives from subjunctive clauses with an imperative meaning: specifically, nuclear word order characterizes the latter, while inverted word order (verb–verbal modifier) defines the former. Varga (2013) argues that, in the case of main clause imperatives – regarded as matrix subjunctive clauses – the unusual nuclear word order can only be licenced by a sort of *givenness* in the discourse. In the case of interrogative imperatives, however, as pointed out by her, both word orders are acceptable without such semantic/pragmatic constraint (p. 87).

Three Additional Types of Interrogative Imperative

The second type to be discussed has a subjunctive verb form, and it contains the discourse marker *ugye* which expresses bias (similarly to tag questions in English). This type can be regarded as the combination of the biased polar question (*ugye*-interrogative) and the basic imperative (2). It is typically marked by a rise-fall intonation pattern where the position of the rise is usually on the most prominent constituent (the object in (2a), and the verb in (2b)). For more information on *ugye* and intonation, see Gyuris (2009), for instance.

(2) Subjunctive + *ugye* (expressing bias)

a. Ugye főzzek / ??főzzél levest is?
ugye cook.Sbjv.1Sg cook.Sbjv.2Sg soup.Acc also
'I / ??You should also make a soup, shouldn't I / ??you?'

b. Ugye meg-főzzem / (?)főzzem meg a levest?
ugye vm-cook.Sbjv.1Sg cook.Sbjv.1Sg vm the soup.Acc
'I should prepare the soup, shouldn't I?'

Verb form preferences are the same as with the basic type: the first person is preferred, while the second person is strongly dispreferred (2a). Both word orders are acceptable with the nuclear one being the more neutral (2b). The main function (requesting instruction) is somewhat modified: the expected answer is confirmation, this is why the negative answer needs some explanation – although, not as much as a simple *ugye*-interrogative does.

The next type we discuss has subjunctive verb form, and it contains the discourse marker *vajon* 'whether', which expresses self-reflection (Gärtner & Gyuris, 2012), similarly to the English clause 'I wonder'. Its intonation is analogous to that of a simple polar question: rising-falling with the rise on the penultimate syllable. Thus, this type combines *vajon*-interrogatives and the basic imperative (3).

(3) Subjunctive + *vajon* (expressing self-reflection)

a. Vajon menjünk / ?menjél ma futni?
vajon go.Sbjv.2Pl go.Sbjv.2Sg today run.Inf
'I wonder whether we / ?you should go running today.'
b. Vajon el-menjek / ?menjek el a koncertre?
vajon vm-go.Sbjv.1Sg go.Sbjv.1Sg vm the concert.Sub
'I wonder whether I should go to the concert.'

This type also prefers first person verb forms, especially in the plural. Second person is dispreferred, but not as much as with the previous types (3a). Another difference from the previous types is that, with *vajon*, the inverted word order is much less acceptable than the nuclear one (3b). As for its function, the speaker is requesting the listener's opinion in this utterance. It means something like 'I do not think you know the answer, I just need your advice.' The reply usually begins with 'I think' or 'Maybe' indicating that the interlocutors are starting to speculate together over the action in question.

The last type to be discussed here has subjunctive morphology accompanied by a wavy intonation, which expresses surprise (Kleiber & Alberti, 2014). With this special intonation, an interrogative sentence can be regarded as an exclamation rather than a question (Varga, 1994). So this type is a combination of exclamative polar questions (wavy interrogatives) and basic imperatives (4).

(4) Subjunctive + wavy intonation (indicating surprise)

a. (Tényleg) Olvassak / ?Olvassál Marinak esti mesét?!
really read.Sbjv.1Sg read.Sbjv.2Sg Mari.Dat bedtime_story.Acc
'I / ?you should (really) read a bedtime story to Mari?!'
b. (Tényleg) ?El-olvassam / Olvassam el az egész könyvet?!
really vm-read.Sbjv.1Sg read.Sbjv.1Sg vm the whole book.Acc
'I should (really) read the whole book?!'

First person verb forms are preferred, while the second person is dispreferred; though – similarly to the previous type containing *vajon* – the dispreference against second-person verb forms is not that strong (4a). Contrary to all the other types, the inverted word order is much more common than the nuclear one (4b), which can be explained by the fact that this type is primarily used as a counter-question known to repeat the original structure (Varga, 2013, p. 87): an imperative sentence following inverted word order in this case. The function of this type is to express surprise over an instruction. With this utterance, the speaker is typically expecting confirmation, explanation, or merely the listener's sympathy.

Framework: ℜeALIS

ℜeALIS 'Reciprocal And Lifelong Interpretation System' (Alberti, 2011) can be characterized as a discourse-representation-based (Kamp, Genabith, & Reyle, 2011; Asher & Lascarides, 2003) formal pragmasemantic theory. *Reciprocal* means that the interlocutors model each other

reciprocally: the speaker, for instance, when utters a sentence, takes the listener's assumed knowledge into consideration, including their assumed knowledge exactly on the speaker's knowledge. *Lifelong* means that a huge DRS (discourse representation structure) is built from birth, containing the interpreter's information states from moment to moment. In order to account for pragmatic phenomena, we need to represent not only the outside world but also the interlocutors' internal worlds (mental states): their beliefs (B), desires (D) and intentions (I).

The innovative feature of ℜeALIS is that representations are regarded as mental states (the interpreters represent discourses in their minds), and these mind-representations are taken to be part of the world model (Alberti & Kleiber, 2014). In this way, a homogeneous structure is used for representing the discourse, the world, and the human mind. With this approach, the same pattern-matching mechanism can be applied for extensional and intensional evaluation, which makes it possible to check the sincerity of a promise, for instance, the same way as the truth value of a sentence.

In ℜeALIS, it is possible to differentiate between the addresser/addressee and the speaker/listener roles. The former belongs to the ideal case, the linguistically encoded information of an utterance (this is our only concern in the paper), while the latter appears in a concrete situation which may not realize the ideal case. During the interpretation process, it is to be evaluated from clause to clause – in harmony with Oishi's (2014) thesis – whether the speaker is acting legitimately, sincerely, and/or adequately, while, in the on-going discourse, playing the addresser's role and giving the listener the addressee's role and qualifying the speech situation to be a licensed context of the given speech act. With this approach, when a proposition is evaluated against the current content of the interlocutors' information state, various pragmatic factors can be accounted for, such as the Gricean maxims (e.g., the relevance of an utterance), irony, politeness, and so on (for more on this matter, see Alberti, Vadász, & Kleiber (2013); and Alberti, Kleiber, Schnell, & Szabó (2016)).

In the remaining of the section, we briefly introduce the applied formalism, that is, how representations look like in ℜeALIS. A clause performed in an on-going discourse conveys a piece of information which belongs to an *intensional profile* encoding its pragmatico-semantic contribution: the interlocutors' beliefs, desires and intentions while performing it. An intensional profile consists of finite components of *worldlets* which encode one meaning component each, such as a desire for an eventuality, or a belief about the intentions of our partners. A worldlet can be regarded as a labeled DRS-like structure where eventuality e is "inside" the box, and the *label* encodes the five essential properties which belong to e in this particular case (5).

(5) The worldlet labels of ℜeALIS

M: Modality	belief (B), desire (D), intention (I)
I: Intensity of M	maximal (M), great (gr), some (sm), …
R: host of the worldlet	addresser (AR), addressee (ae), others (r, …)
T: time parameter	τ, τ^- ($< \tau$), τ^+ ($> \tau$), …
P: polarity value	+ (true), – (false), 0 (neutral)

For instance, if the sentence is *I know that Peter loves Mary*, then e='Peter loves Mary', and the label encodes its status: that the addresser (AR=I) knows (Maximally Believes) at time τ that the given eventuality e holds (+): ⟨B,M,AR,τ,+⟩.

Every parameter can have multiple values, which allows *underspecification* in the representations. For instance, the intensity of the modality is often specified only as much as "non-maximal" (nM); or the polarity value may be "non-neutral" (+–). Even the host can be underspecified, like when AR utters the imperative sentence 'Sit down!' which can convey not only AR's but also ae's desire. Furthermore, a worldlet can be embedded in another worldlet which makes it possible to refer to information states (*recursion*). For instance, the series of level labels ⟨B,M,AR,τ,+⟩⟨D,M,ae,τ,+⟩ when assigned to a worldlet encodes that AR is sure that ae longs for e. Finally, a key property of ℜeALIS is that a piece of information frequently appears in several worldlets simultaneously. When an eventuality e is represented in the interlocutor's mind, it is "scattered" like a prism scatters images multiplying a single image – this is why we call this phenomenon a *prism effect*. For instance, one can desire and also intend to do e (placing e in two worldlet boxes appropriately) while it might also happen that one comes to a decision concerning an intention in spite of their opposite desires (placing e in the negative segment of the worldlet of desire). Thus, a *set* of finite sequences of level labels is assigned to an eventuality referent (we will see many examples later on).

As a summary, we conclude this section with the mathematical definition for intensional profiles. An intensional profile is an element of the set $\mathbf{P}((\mathbf{P}(M)\times\mathbf{P}(I)\times\mathbf{P}(R)\times\mathbf{P}(T)\times\mathbf{P}(P))^*)$: the power set of the set of finite sequences of level labels. The first power set symbol (bold **P**) captures the prism effect, the internal ones are responsible for underspecification, and the Kleene-star at the end enables recursion.

Formal Analysis: the Basic Type

This section presents detailed analysis for the basic type of interrogative imperative, which is the compositional combination of the basic polar question and the basic imperative in Hungarian (1). First, we introduce the pragmatico-semantic content of the components. This is followed by the presentation of the methods ℜeALIS applies for constructing compositions. Finally, we demonstrate how the intensional profile of the basic interrogative imperative can be created.

Pragmatico-Semantic Content of the Components

We begin with the presentation of the basic imperative profile. We follow Lauer (2013) in assuming that – though illocutionary force varies widely – sentence types can be associated with conventions of use. For instance, "an utterance of an imperative conventionally commits the speaker to a preference for the imperative to become fulfilled" (Lauer, 2013, p. 136). In ℜeALIS, the imperative convention is encoded in the intensional profile of the "basic" imperative, that is, the representation of AR's beliefs, desires and intentions behind this intuition.

The pragmatico-semantic content of the basic imperative can be captured with four pieces of information (example in (6), visual representation in Figure 1): AR's (maximal) belief that eventuality e does not hold (6b); AR's (non-maximal) belief that ae has the same belief (6c); AR's (maximal) desire for e (6d); and – most importantly – AR's (maximal) intention to get ae to (intend to) do (or facilitate) e (6e). The preferred Agent (Ag) with the basic imperative is ae (second person verb form), while the dispreferred Agent is AR (first person) (6f); nevertheless, this description is also valid for non-addressee-oriented directives (third person forms). Obviously, with imperatives, we can express much more: adding discourse particles, or uttering them with special intonation patterns could shade or specify ("fine-tune") their meaning. For the present discussion, other types of imperative are not relevant; the interested reader is referred to Alberti et al. (2016); and Kleiber, Alberti, & Szabó (2016).

(6) The intensional profile of the basic imperative sentence type in Hungarian

a. Menjhaza!
go.Sbjv.2Sg home
'Go home!'

b. ⟨B,M,AR,τ,–⟩ "I (AR) am sure that (the result phase of) the given eventuality e does not hold (i.e., you are not home)"

c. ⟨B,nM,AR,τ,+⟩⟨B,M,ae,τ,–⟩ "I think that you (ae) are also aware of this fact."

d. ⟨D,M,AR,τ,+⟩ "I long for this eventuality (you being home)."

e. ⟨I,M,AR,τ,+⟩⟨I,M,ae,τ+,+⟩ "I want you to intend to go home, at a later time τ+."

f. Note: Preferred Ag=ae; Dispreference: Ag≠AR

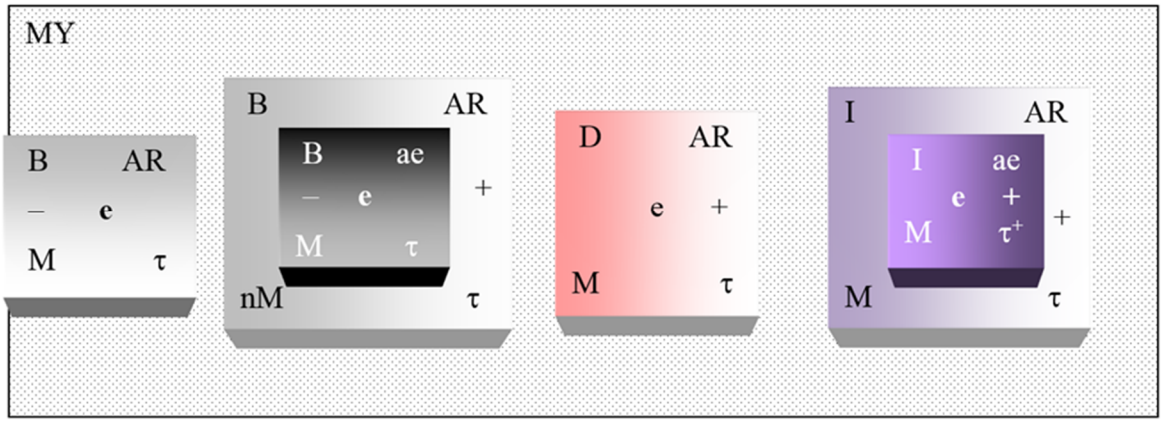

Figure 1: *Visual representation for the basic imperative profile*

The pragmatico-semantic content of interrogatives also exhibits great variation. In this part, we characterize the "basic" interrogative. Lauer (2013, pp. 162) defines the interrogative convention as follows: "The speaker requests that the addressee assert one of the possible answers to his question."

In ℜeALIS, the intensional profile of the basic interrogative encodes four pieces of information regarding AR's beliefs, desires and intentions (7) (Figure 2). Compared to the basic imperative profile, AR's knowledge about eventuality e is neutral (0) this time (7b), while believing that ae's knowledge is not neutral (+ or –) (7c). Moreover, AR's desire (7d) and intention (7e) does not relate to e itself (to make e happen), but to know if e or not e holds. Verb

form preferences are the same as with the basic imperative (7f). The relevant "fine-tuned" variants of the basic interrogative will be briefly discussed later in the paper; for more on this topic, see Alberti & Kleiber (2014), and Kleiber & Alberti (2014).

(7) The intensional profile of the basic interrogative sentence type in Hungarian

a. Péter otthon van?
Péter home be.3Sg
'Is Péter at home?'

b. ⟨B,M,AR,τ,0⟩ "I do not know if Péter is at home."

c. ⟨B,nM,AR,τ,+⟩⟨B,M,ae,τ,+–⟩ "I think you know the answer."

d. ⟨D,M,AR,τ,+⟩⟨B,M,AR,τ+,+–⟩ "I wish to know the truth."

e. ⟨I,M,AR,τ,+⟩⟨I,gr,ae,τ+,+⟩⟨B,M,AR,τ+,+–⟩ "I want you to intend to let me know (at a later time τ^+) if Péter is at home."

f. Note: Preferred Ag=ae; Dispreference: Ag≠AR

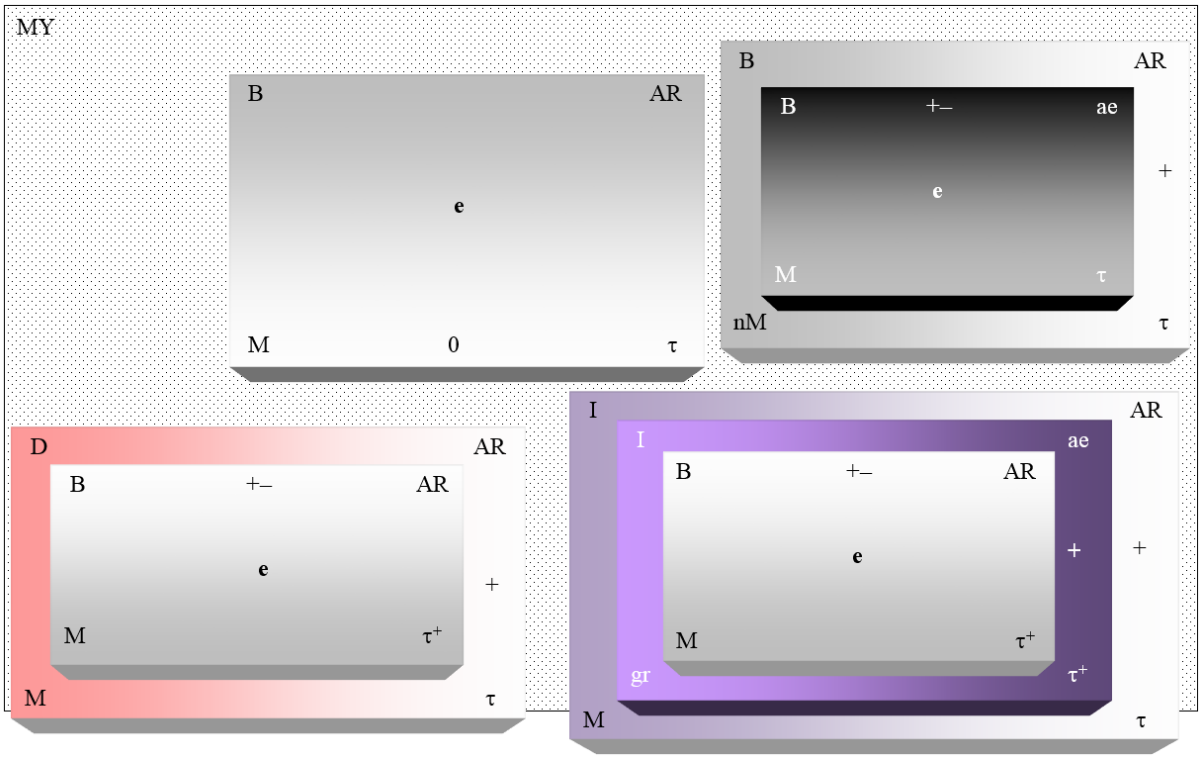

Figure 2: *Visual representation for the basic interrogative profile*

The Composition

ℜeALIS applies two means for providing compositional analysis (8): the simple (mathematical) operation of *concatenation* (^), and the formal operation of pragmasemantic *blending* (⊕). For the compositional analysis of interrogative imperatives, concatenation is applied to sets of worldlets, and it creates (deeper) embeddings. It allows two sets of worldlets to be mixed in a way that the labels of the first one will relate to the labels of the second one (instead of eventuality e itself): concatenation embeds the second worldlet into the first one. For instance,

in (8a'), if we concatenate AR's desire for e with AR's knowledge about e, we get a worldlet where AR's desire is no longer for e itself, but *to know* e.

(8) Means for compositional analysis in ℜeALIS: concatenation (a) and blending (b)
  a. {A, B}^{C, D} = {A^C, A^D ,B^C, B^D} = {AC, AD, BC, BD}
  a'. applied to worldlets: ⟨D,M,AR,τ,+⟩^⟨B,M,AR,τ,+⟩ = ⟨D,M,AR,τ,+⟩⟨B,M,AR,τ,+⟩
  b. [X, Y, Z] ⊕ [X', Y', Z'] = [X∪X', Y, Z']

The operation of pragmasemantic blending is based on the cognitive linguistic notion, and it is capable of mixing partially incompatible meaning components, such as mood and modality (Alberti, Dóla, & Kleiber, 2014). For deriving the pragmatico-semantic content of interrogative imperatives, we need to divide the intensional profiles into two sets of worldlets, and then mix them appropriately – which is exactly what blending can do. The *premise components* encode the beliefs about the eventuality in question, and about the interlocutors' internal worlds; while the *central components* represent the actual content of the utterance: desires, and, most importantly, intentions behind the speech act. The division is similar to the distinction between non-at-issue and at-issue content (Potts, 2005).

As we have already discussed, the basic type of interrogative imperative (1) is the combination of the basic polar question and the basic imperative sentence type. Its main function is to request instruction, asking what the Agent (preferably I/we) should do.

Now let us demonstrate how this type can be constructed (Table 1). The basis is the interrogative profile, since these sentences are primarily questions marked by a rise-fall intonation pattern. We have also established that these questions are targeted at the commands in them marked by a subjunctive verb form. Therefore, the imperative profile needs to be incorporated into the interrogative profile to provide the meaning we aim to derive. This task can be carried out by the concatenation between the two relevant intensional profiles; we only need to separate the premise components of the imperative profile first, and make them the premise components of the composition by using the operation of blending.

Table 1: *The construction of the pragmatico-semantic content of the basic type of interrogative imperative (BS: Basic interrogative + Subjunctive verb form)*

Composition: Basic type (BS)	**P_Imp ∪ (Int_{basic}^C_Imp)**
{⟨B,M,AR,τ,–⟩; ⟨B,nM,AR,τ,+⟩⟨B,M,ae,τ,–⟩} ∪ {⟨B,M,AR,τ,0⟩; ⟨B,nM,AR,τ,+⟩⟨B,M,ae,τ,+–⟩; ⟨D,M,AR,τ,+⟩⟨B,M,AR,τ⁺,+–⟩; ⟨I,M,AR,τ,+⟩⟨Igr,ae,τ,+⟩⟨B,M,AR,τ⁺,+–⟩} ^ {⟨D,M,**ae**,τ,+⟩; ⟨I,M,**ae**,τ,+⟩⟨I,M,**AR**,τ⁺,+⟩}	Premise components of the imperative profile (beliefs) **P_Imp**
	UNION
	Components of the basic interrogative profile **Int_{basic}**
	CONCATENATION
	Central components of the imperative profile (desire, intention) **C_Imp**
Pref. Ag=AR; Dispref.: Ag≠ae	reversed preferences (roles have turned)

The result of the above operation (Table 1) can be seen in the visual representation of the basic interrogative imperative (Figure 3). The basis is the interrogative profile (Figure 2), which has been altered in two ways. On the one hand, two extra boxes have been added via blending (premise components of the imperative profile). On the other hand, all the simple e's (eventualities) have been replaced with the same two boxes each (via concatenation): the central components of the imperative profile. Note that the roles have changed: if the imperative profile is embedded, AR becomes ae and vice versa, since now AR's command is the issue. In this way, we get the following interpretation (9) (AR=I, ae=you).

(9) The pragmatico-semantic content of the basic interrogative imperative sentence type

a. Hívjak segítséget?
call.Sbjv.1Sg help.Acc
'Should I call for help?'

b. 1st box: 'I know that e does not hold (no-one has called for help yet).'

c. 2nd box: 'I assume you also know that.'

d. 3rd box: 'I don't know if you long for e (calling for help), and if you want me to intend to do it.'

e. 4th box: 'I assume that you know if you desire and intend that I call for help.'

f. 5th box: 'I wish to know if you desire and intend that I call for help.'

g. 6th box: 'I want you to share this desire and intention with me.'

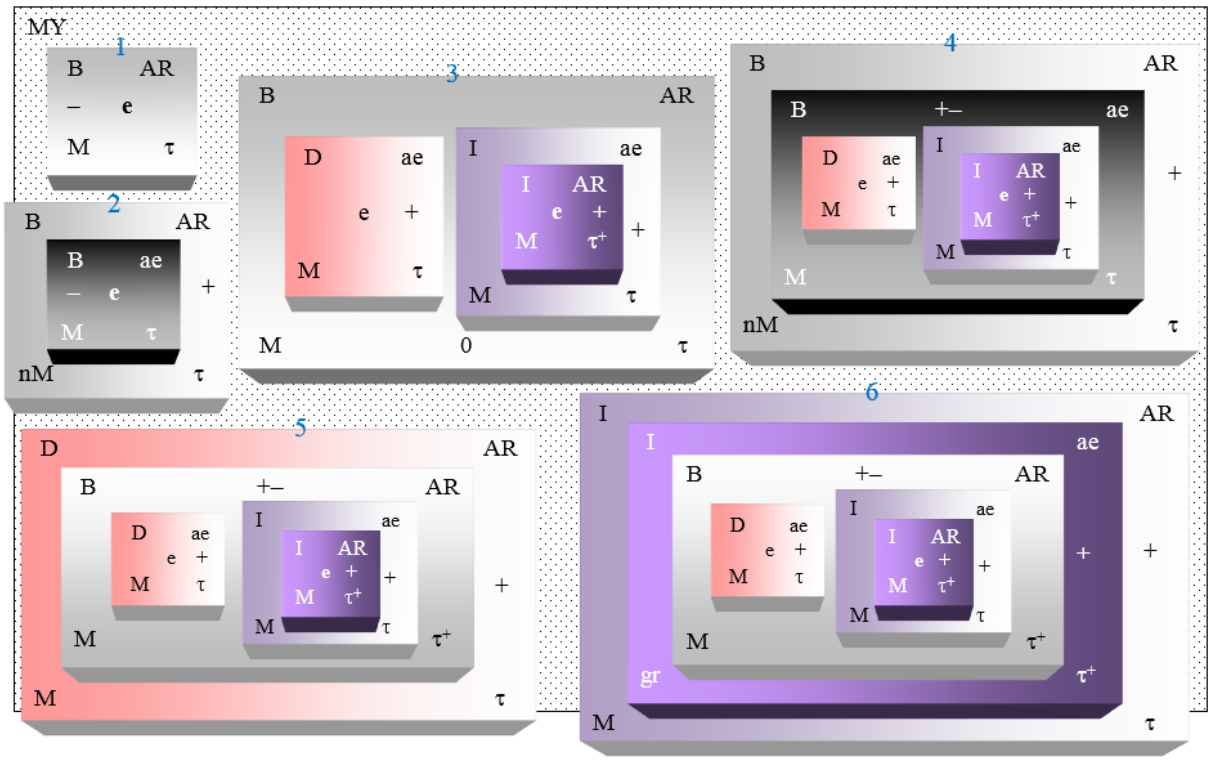

Figure 3: *The intensional profile of the basic interrogative imperative sentence type in Hungarian*

Thus, we have generated the required output: a question which is targeted at ae's desires and intentions in connection with a given eventuality and AR, that is, whether AR should do something or not – as long as ae is concerned.

Formal Analysis: the Three Additional Types

In this section, we briefly discuss, first, the components, and then the compositions for the other three types of interrogative imperative introduced in the paper.

Pragmatico-Semantic Content of the Components

The addition of the discourse marker *ugye* to a Hungarian polar question signals that AR has a preconception that eventuality e is true (leading, or biased question) (10a). The particle *ugye* can occur in any position in the sentence (Kenesei, Vágó, & Fenyvesi, 1998) with a slightly different meaning (Molnár, 2016). The intensional profile of *ugye*-interrogatives differs from the basic type in only one worldlet which encodes that AR has a non-maximal belief that eventuality e holds, that is, there is a bias towards the positive answer (Table 2, second column, bold fonts).

(10) Three additional types of interrogative in Hungarian
a. Ugye szereted az almát?
ugye love.2Sg the apple.Acc
'You like apples, don't you?'
b. Vajon lesz eső?
vajon be.Fut.3Sg rain
'I wonder if there will be rain.'
c. Megkaptam a szerepet?! (with wavy intonation)
get.Past.1Sg the role.Acc
'I've got the part?!'

The addition of the discourse marker *vajon* (10b) makes a question "reflective" (Gärtner & Gyuris, 2012), which means that, instead of asking someone a question, we merely pose the question. It "puts the question on the table" without requesting an answer (pp. 416). In the formalism of ℜeALIS, this attitude is expressed by the bold parts of Table 2, third column: 'I do not think (0) that you know the answer; and my intention with this utterance is merely that you recognize my desire to find it out.' Note that the person preferences are different for this type: ae is also dispreferred, since AR usually wonders about a third party's actions.

Finally, the wavy-interrogative (10c) is actually more of an exclamation (Varga, 1994), and thus, it has a very different intensional profile (Table 2, last column, bold fonts): 'I have just found out that e is true; I have had strong (positive or negative) desire for e; and I would like to get some kind of explanation (B') for this unexpected happening.' In this case, there are no verb form preferences, since AR can be surprised upon any fact.

Table 2: *Intensional profiles of the components (bold: differences from the basic type)*

	Basic interrogative	***Ugye*-interrog.**	***Vajon*-interrog.**	**Wavy-interrog.**
Belief	⟨B,M,AR,τ,0⟩	⟨B,M,AR,τ,0⟩ **⟨B,nM,AR,τ,+⟩**	⟨B,M,AR,τ,0⟩	**⟨B,M,AR,τ,+⟩** ⟨B,M,AR,**τ⁻**,0⟩
	⟨B,nM,AR,τ,+⟩ ⟨B,M,ae,τ,+−⟩	⟨B,nM,AR,τ,+⟩ ⟨B,M,ae,τ,+−⟩	⟨B,nM,AR,τ,+⟩ ⟨B,M,ae,τ,**0**⟩	
Desire	⟨D,M,AR,τ,+⟩ ⟨B,M,AR,τ⁺,+−⟩	⟨D,M,AR,τ,+⟩ ⟨B,M,AR,τ⁺,+−⟩	⟨D,M,AR,τ,+⟩ ⟨B,M,AR,τ⁺,+−⟩	**⟨D,M,AR,τ,+−⟩** **⟨D,nM,AR,τ,+⟩** **⟨B',M,AR,τ,+⟩**
Intention	⟨I,M,AR,τ,+⟩ ⟨I,gr,ae,τ,+⟩ ⟨B,M,AR,τ⁺,+−⟩	⟨I,M,AR,τ,+⟩ ⟨I,gr,ae,τ,+⟩ ⟨B,M,AR,τ⁺,+−⟩	⟨I,M,AR,τ,+⟩ **⟨B,M,ae,τ,+⟩** **⟨D,M,AR,τ,+⟩** **⟨B,M,AR,τ⁺,+−⟩**	
Note	Pref.: Ag=ae; Dispref.: Ag≠AR	Pref.: Ag=ae; Dispref.: Ag≠AR	Pref.: Ag=r*; Dispref.: Ag≠AR, Ag≠ae	

We have demonstrated in the Data section that there is a subtle difference in the acceptability of the dispreferred second-person verb form. The *Note* row provides an explanation for this observation. Primarily, the imperative profile's preference gets reversed;

however, when the imperative profile is combined with an interrogative profile, its preference can slightly alter that. The first two types (basic and *ugye*) have the same preferences as the imperative profile, which results that the dispreference will be strong against the second-person form for these combinations. On the other hand, the last two types (*vajon* and wavy) have different preference or no preference at all (the original preference is not supported), and thus, the dispreference will be weaker in these cases.

The Compositions

We can use the same compositional mechanism to construct the intensional profiles for the other three types. We take the premise components of the imperative profile, and unite them with the concatenation of the relevant interrogative profile and the central components of the imperative profile (11).

(11) Construction of the intensional profiles for the further types of interrogative imperative
- a. *ugye* (bias) + subjunctive (US) $US = P\_Imp \cup (Int_{ugye}\hat{}C\_Imp)$
- b. *vajon* (self-reflection) + subj. (VS) $VS = P\_Imp \cup (Int_{vajon}\hat{}C\_Imp)$
- c. wavy int. (surprise) + subj. (WS) $WS = P\_Imp \cup (Int_{wavy}\hat{}C\_Imp)$

These operations create embeddings similar to those we have seen with the first type, resulting in the following output: the interrogation / bias / speculation / surprise pertains not to eventuality e but to the "commanding" of e – which is exactly the pragmatico-semantic content we can assign to these utterances.

A Note on Differences in Word Order

Let us return to the observation presented in the (b)-examples in (1–4) that interrogative imperatives can often appear with two word-order variants: the verb stem can be both followed and preceded by the verbal modifier. The pair of examples in (12a,b), a variant of (1a–b), evokes the problem.

(12) Subjunctive + rise-fall intonation (typically used with polar questions)

a. [Hívjunk segítséget] / [??Segítséget hívjunk] a sérülthöz?
call.Sbjv.1Pl help.Acc help.Acc call.Sbjv.1Pl the wounded.All
'Should we call for help to the wounded?'

a'. Mindenekelőtt ?[hívtunk segítséget] / ✓[segítséget hívtunk] a sérülthöz.
first_of_all call.Past.1Pl help.Acc help.Acc call.Past.1Pl the wounded.All
'First of all, we called for help to the wounded.'

b. Fel-hívjam / Hívjam fel Marit?
vm-call.Sbjv.1Sg call.Sbjv.1Sg vm Mari.Acc (vm: verbal modifier)
'Should I call Mari?'

As shown by (12a'), the object readily serves as a verbal modifier in the given construction (i.e., the equivalent of *call for help*); however, the corresponding interrogative imperative strongly prefers the order with the verb stem preceding the verbal modifier (12a). Note that, in

the case of embedded imperatives, this order is (generally) claimed to express a *stronger deontic force* by Tóth (2005), relative to the other word order, expressing a weak(er) deontic force. As for (12b), the verbal construction presented there contains a preverb serving as a verbal modifier. The preverb proves to tolerate both word-order variants. One question is as to whether there is *really* a difference in the strength of deontic force between the word-order variants in (12b). Another question is as to whether non-preverb-like verbal modifiers prefers one word-order variant.

The latter question is left to future research. As for the former question, our mother-tongue competence says that the variant which stronger deontic force is attributed to is really a request for a more resolute, more disciplined instruction. Nevertheless, it seems to be impossible to construct world models safely differentiating the word-order variants in question. Nor is it clear how to support this differentiation by means of corpus data. What we can safely claim at this point of research is that the more sophisticated version of ℜeALIS which will be sketched in Table 4 in the section of conclusions and loose ends is suitable for capturing the alleged difference (by appropriately "setting" the corresponding intensitivity values belonging to intention/desire). The precise details are also left to future research.

Conclusions and Loose Ends

We have discussed four types of interrogative imperative in Hungarian, their forms and functions. Our hypothesis was that the pragmatico-semantic content of mixed-type sentences can be obtained compositionally. For the analysis, we applied the formal dynamic discourse- and mind-representation theory ℜeALIS.

We combined the intensional profiles of the components by using the simple operation of concatenation, on the one hand, and a formalized version of pragmasemantic blending, on the other hand. With this method, we have constructed the intensional profiles for these mixed-type sentences compositionally: the interlocutors' beliefs, desires and intentions behind the four types of interrogative imperative.

The analysis has produced the required output. For each type of interrogative imperative, it has derived the exact meaning we aimed for, namely that the interrogation / bias / speculation / surprise pertains not to eventuality e but to the "commanding" of e. The analysis has also provided an explanation for the subtle difference in the acceptability of certain forms.

In these cases, the data confirmed our hypothesis: the pragmatico-semantic content of the interrogative imperative profile *can* be constructed compositionally from the intensional profiles of its components. In the future, we plan to expand the scope of this research and see whether we can account for more linguistic phenomena via this pragmatic compositional mechanisms.

We conclude the paper by presenting a summarizing table (Table 3) about the features we have discussed on the topic of interrogative imperatives in Hungarian, and another table (Table 4) with a more sophisticated intensional-profile model of the three basic sentence types (Szeteli & Alberti, 2017), upon which the description of mixed-type sentences are also hypothesized to be based compositionally.

Table 3: *Summary of the Hungarian interrogative imperative sentence types discussed in the paper*

	BS (1)	**US (2)**	**VS (3)**	**WS (4)**
Form: Subjunctive+	rise-fall intonation	particle *ugye*	particle *vajon*	wavy intonation
Person preferences	1. (??2.)	1. (??2.)	1. (?2.)	1. (?2.)
vm–verb stem order	nuclear (inverted)	nuclear (inverted)	nuclear (?inverted)	inverted (?nuclear)
Function	requesting instruction	requesting instruction (confirmation)	requesting opinion (speculate together)	expressing surprise over instruction (requesting confirmation /explanation/sympathy…)
Answer	yes / no (subjunct.)	yes / no (+explanation)	I think… / Maybe… / …	Yes / Yes, because… / I am sorry! / …
Components	basic question + basic imperative	biased question + basic imperative	self-reflective question + basic imperative	exclamative question + basic imperative
Constructing formula	$P\_Imp \cup (Int_{basic} \hat{} C\_Imp$	$P\_Imp \cup (Int_{ugye} \hat{} C\_Imp)$	$P\_Imp \cup (Int_{vajon} \hat{} C\_Imp)$	$P\_Imp \cup (Int_{wavy} \hat{} C\_Imp)$
Meaning	the question	the bias	the speculation	the surprise
	pertains to the "commanding" of e: ae's desires and intentions concerning e			

The point of departure is still that AR is convinced that the distribution of knowledge concerning a potential fact e is as follows: AR knows it while ae does not know it in the case of a declarative, and, in the case of an interrogative sentence, exactly oppositely, while in the case of an imperative, both interlocutors are assumed to know that the world is such that e does not hold.

Table 4: *A generalized model of the intensional profiles of the three basic sentence types in Hungarian (bold: essential differences from the earlier ℜeALIS-model partly demonstrated in Table 2)*

	Conditions on parameter values	**Declarative**	**Interrogative**	**Imperative**
Belief		⟨B,M,AR,τ,+⟩	⟨B,M,AR,τ,0⟩	⟨B,M,AR,τ,–⟩
	λ=⟨B,nM,AR,τ,+⟩	λ^⟨B,M,ae,τ,0⟩	λ^⟨B,M,ae,τ,+–⟩	λ^⟨B,M,ae,τ,–⟩
Desire	**λ'=⟨B,nM,AR,τ,+⟩; λ"=⟨D,γ_{r^*},r*,τ,+⟩; $\Sigma\gamma_x \geq 1$ (x∈r*)**	**λ'^λ"^⟨B,M,ae,τ^+,+–⟩**	**λ'^λ"^⟨B,M,AR,τ^+,+–⟩**	**λ"**
Intention	λ"'=⟨I,M,AR,τ,+⟩; λ""=⟨I,M,ae,τ^+,+⟩	λ"'^⟨B,M,ae,τ^+,+⟩	λ"'^λ""^⟨B,M,AR,τ^+,+–⟩	λ"'^λ""
Note	**Pref.: r*={AR,ae}**	Pref.: Ag=AR, Dispref.: Ag≠ae	Pref.: Ag=ae; Dispref.: Ag≠AR	Pref.: Ag=ae; Dispref.: Ag≠AR

It is the underlying desire that is handled in a more sophisticated way than in the earlier versions of ℜeALIS. The point is that it is not *ab ovo* decided whether AR (see λ') is led by self-interest or cooperation while performing either a declarative (cf. Oishi, 2014), or an interrogative, or an imperative (see Kleiber et al., 2016). Referent r* in the relevant formula can refer to not only a singleton but, preferably, a set of people. We claim that the most preferred choice is the pair of AR and ae (that is, the two interlocutors are taken into consideration), and the formula '$\Sigma\gamma_x \geq 1$' (after having converted intensity degrees of the three modalities into numbers between 0 and 1 in the plausible way with 1 corresponding to M(ax)) can capture both (i) the case when performing the utterance serves AR's interest (who wants to involve ae in a project serving his/her own interest by "forcing" the information on ae, or asking for it, or requesting common intention, see the Intention-row), and (ii) the case when AR indends to serve ae's interest (by giving ae some information, or accepting it, or offering common intention). Let us return to the interpretation of the worldlet label λ" with the formula of summation: the evaluation γ_{AR}=1 captures self-interest, while γ_{ae}=1 means inclination for cooperation. As indicated by the relation symbol '≥', it is not excluded at all that AR assumes that his/her self-interest fortunately coincides with ae's interest (e.g., both intensitivity value can be 0.7='fairly strong desire', resulting in a sum of 1.4). Obviously, even this formula is only the first step towards a would-be system of formulas precisely capturing the cross-checking of each interests assumed by AR while performing a given sentence type. It must be taken into account, however, that the task is not revealing every combination of interests occurring in every-day life but collecting those which can be expressed by the basic sentence types without any kind of "fine-tuning" with (collocated) discourse markers and special stress patterns.

All in all, we are ceaselessly sophisticating (i) what can plausibly be assumed to be the basic intensional-profile types, (ii) the intensional-profile descriptions of discourse markers, and (iii)

the blending formulas "controlling" the calculation of the intensional profiles of sentences types fine-tuned by discourse-marker collocations.

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A new beginning? A bibliometric analysis of L2 vocabulary research in 1985

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Abstract

This paper uses a co-citation analysis to examine the research on L2 vocabulary acquisition that was published in 1985. This year seems to mark a kind of transition in the field. Unlike the earlier years analysed in this series of papers, 1985 shows signs of a coherent L2 vocabulary research front developing. The number of papers that qualify for inclusion is much greater than in previous years, and the analysis suggests that recognisable research themes are beginning to be clearly articulated.

Keywords: L2 vocabulary acquisition, vocabulary research, bibliometric analysis

1. Introduction

This paper is the fifth in a series of studies which attempt to plot the way research in L2 vocabulary acquisition has progressed over the last fifty years. Earlier papers have analysed the research outputs published in 1982, 1983, 1984 and 2006. (Meara 2012, 2014, 2015, 2016). This paper follows on directly from my analyses of the 1983 and 1984 data, published in *LingBaW,* and it uses the same bibliometric techniques that were used in the earlier papers – principally the co-citation methodology developed by Small (1973) and White and Griffith (1981). This methodology is summarised in Appendix 1 for readers who are not familiar with the approach. The long term aim of this series of papers is to provide a historical account of the way a small number of themes have come to dominate L2 vocabulary research, and to document how the thinking of a small group of researchers has become an orthodoxy in modern research.

My analyses of the 1982-1984 data drew attention to the fact that it was very difficult to identify anything like a coherent L2 vocabulary research program at this time. The strongest feature in the 1984 map was a very dense and coherent cluster of influences all dealing with psycholinguistic aspects of bilingual speakers, but this cluster of influences is very self-referential, and was not generally cited alongside the research published by linguists. Work of this latter type was actually quite scarce. Although considerably more relevant research was

published in the period 1982-1984 than had been published in previous years, the total volume of research remained remarkably small. Indeed, 1984 had seen something of a reduction in research outputs compared to 1982 and 1983, and the broad picture consisted principally of small-scale one-off studies.

At first sight, 1985 seems to mark the beginning of a change in the field. 1985 sees a very large increase in the number of relevant research outputs, and for the first time the bibliometric data suggests that L2 vocabulary research is beginning to establish itself as a respectable research topic with signs of clearly delineated research priorities. 1985 also sees the emergence of research clusters that address research themes that would be recognisable to modern researchers.

The VARGA database (Meara n.d. Accessed June 2017) identifies a total of 111 relevant research outputs during 1985 – almost three times the desultory total of the 1984 output. There are some important qualitative differences between the 1985 data set and the data analysed in our earlier reports. Particularly noticeable is that the 1985 data set contains a number of papers published in French and German whereas papers of this sort were conspicuously absent from the earlier analyses. More importantly, the 1985 research includes a number of works of a type that were very infrequent in the earlier data sets. In 1985 we find one issue of a journal dedicated to vocabulary (*Les langues modernes*), one edited collection of papers (Ilson), three books (Corson, Lyne and Schouten van Parreren), and some research-motivated teaching material (Daams-Moussault, Rudzka et al.). We also find four PhD theses (Kelly, Laufer, Locus and Mansouri awarded respectively by the Universities of Louvain-la-Neuve, Edinburgh, Leuven and Sheffield). All this activity supports the view that there is a groundswell of change in this year's literature – a new beginning perhaps?

2. The data sources

Table 1 lists the 92 eligible sources which were used in the bibliometric analysis that follows in Section 3. Eligible sources are research papers published in journals or as book chapters – theses, bibliographies, and monographs are conventionally excluded from bibliometric analyses because they cite research in a way that is different from what appears in shorter, more focussed research papers. Theses and monographs tend to contain very large bibliographies that range very widely over several research areas. The size of these bibliographies makes them unmanageable in conventional bibliometric studies. Similarly, bibliographies also tend to be much larger than conventional research papers, and they often prioritise size and comprehensive coverage over other considerations, again making them unmanageable. Conventional practice in bibliometric research is to exclude sources of this kind, and to focus on more traditional research papers which cite a fairly restrained set of bibliographical sources. This convention has been followed in the present paper. The theses and the bibliographical work have been excluded. Also excluded were two papers that I was unable to obtain copies of. The remaining 92 journal articles and book chapters together make up a comprehensive record of the research that was published in 1985. However, this should not be taken as implying that all 92 sources are homogeneous. Many of these publications are little more than think-pieces

which report their author's opinions rather than meticulously collected data. Additionally the papers also differ markedly in their citation practices. For example, about 10% of all the eligible papers do not cite any evidence for the claims that they put forward, while at the other extreme, Paradis' comprehensive review paper cites a total of 108 different authors.

Table 1, below, lists the 92 eligible papers that were used in the analysis. Summaries of these papers can be accessed on the VARGA database (*http://www.lognostics.co.uk/varga/*).

The excluded papers are listed in Appendix 2.

Table 1: *The sources used in the analysis*

af Trampe, P, S Backman and G Kjellmer
The importance of knowing (about) words: some notes on foreign language vocabulary learning. In: *Papers on language and literature: presented to Alvart Ellegard and Erik Frykman.*Goteborg: ACTA Univ. Gothoburgensis, 1985.

Albanèse, J-F
Language lateralization in English-French bilinguals. *Brain and Language*, 24(1985), 284-296.

Alexander, R
Phraseological and pragmatic deficits in advanced learners of English: problems of vocabulary learning. *Die Neueren Sprachen*, 84, 6(1985), 613-621.

Alfes, L
Wortbildungen – linguistiche Muster ohne Wert. *Englisch* 20(1985), 88-93.

Alfes, L
Wortschatzarbeit diachronisch begleitet und ergänzt. *Neusprachlice Mitteilungen* 38(1985), 88-93.

Alfes, L
"Falsche" und "halbehrliche Freunde". Zum Problem der Wortschatzdidaktik. Englisch 20,4(1985), 140-145.

Arnaud, P, H Béjoint and P Thoiron
A quoi sert le programme lexical? *Langues Modernes*, 79,3(1985), 72-85.

Arnaud, P, H Béjoint and P Thoiron
La Lexique. *Langues Modernes* 79, 5(1985), 128-130.

Arrouays, A
Le droit à l'oubli. [The right to forget.] *Langues Modernes* 79, 3/4(1985), 86-88.

Atkins, B
Monolingual and bilingual learners' dictionaries: A comparison. In: **R Ilson** (Ed.) *Dictionaries, lexicography and language learning. ELT Documents* 120. Oxford: Pergamon Press. 1985. 15-24.

Balcke, D
Gedächtnistraining bei der Arbeit am Wortschatz. *Fremdsprachenunterricht* 29(1985), 251.

Beheydt, L
Het semantiseren van woordbetekenis. [Learning word meanings.] In: *Verslag van het negende Colloquium Nederlandicum*. Nijmegen: 1985.

Bongaerts, T
Taalvaardigheidsniveau en het gebruik van compensatie- strategieen in tweede-taalproductie; een bespreking van enkele voorstudies. [Use of compensatory strategies at different levels of language proficiency.] Gramma 9(1985), 1-25.

Broeder, P, J Coenen, G Extra, R van Hout and R Zerrouk
Spatial reference in L2 Dutch of Turkish and Moroccan adult learners: the initial stages. In: **G Extra and T Vallen** (Eds.). 1985.

Broeder, P, J Coenen, G Extra, R van Hout and R Zerrouk
Ontwikkelingen in het Nederlandstalig lexicon bij anderstalige volwassen: een macro- en microperspectief. In: **J Creten, G Geerts and K Jaspaert** (Eds.), *Werk-in-uitvoering.Momentopname van de sociolinguistiek in Belgie en Nederland.* Leuven: ACCO, 39-57. 1985.

Brown, TL and M Haynes

Literacy Background and Reading development in a second language. *New Directions for Child Development* 27(1985), 19-34.

Brumfit, CJ

Graded material and the use of the lexicon. In: **CJ Brumfit** *Language and Literature Teaching: From Practice to Principle.* Pergamon, Oxford. 1985. 96-99.

Bullard, N

Word-based perception: a handicap in second language acquisition? *English Language Teaching Journal* 39, 1(1985), 28-32.

Büsacker, K

Die 26. Methode zum Worterlernen. Wortschatzarbeit mit Hilfe von Charades. *Praxis des neusprachlichen Unterrichts* 4(1985), 349-353.

Cain, A

De la néecessité d'apprivoiser le programme lexical officiel. *Les langues modernes* LXXIX,3/4(1985), 90-93.

Cherchi, L

Aux deux bouts de la chaine: proprietes transitoires de l'acquisition et de l'activation du lexique de l'apprenant en anglais. [Transitional characteristics in the way learners of English learn and use words.] *Les langues modernes* LXXIX,3/4(1985), 39-46.

Chuqet, H

Approches du lexique dans la comprehension des textes en second cycle. Les langues modernes *LXXIX,3/4(1985), 98-105*

Coady, J, P Carrell and ISP Nation

The teaching of vocabulary in ESL from the perspective of schema theory. Milwaukee, WI: Midwest TESOL. 1985.

Cornell, A

Realistic goals in teaching and learning phrasal verbs. *IRAL* XXII,4(1985), 269-280.

Cotte, P

Les ouvrages de vocabulaire anglais. *Les langues modernes* LXXIX,3/4(1985), 113-122.

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A semantic field approach to passive vocabulary acquisition for reading comprehension. *TESOL Quarterly* 19, 3(1985), 497-513.

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Language switching during bilingual reading. *British Journal of Psychology* 76(1985), 111-122.

Davoust, A

A la recherche des mots perdus: pour une politique du réseau dans l'enseignement du lexique. *Les langues modernes* LXXIX,3/4(1985), 47-52.

Doege, M

Lexicalischer Transfer im naturlichen L2-Erwerb des Englische bei deutsche Kinderen. Kiel: unveroffentlichte Examsarbeit. 1985.

Duchet, J-L and M Paillard

Les blocages de comprehension aurale: phonetique, lexique ou grammaire? *Les langues modernes* LXXIX,3/4(1985), 53-56.

Elo, A

On errors made by Finnish-speaking and Swedish speaking university students in oral production in French. In: **H Ringbom** (ed.) *Foreign Language Learning and Bilingualism.* Abo: Abo Akademi. 1985. 73-88.

Erdmenger, M

Word acquisition and vocabulary structure in third year EFL learners. IRAL 23,2(1985), 159-164.

Fahnrich, B

Wortschatzarbeit und freie Textproduktion nach einem visuellen Stimulus. Ein Unterrichtsbeispiel fur die Sekundarstufe. II. *Praxis des neusprachlichen Unterrichts* 4(1985), 339-344.

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Textlinguistik im Fremdsprachenunterricht. Textverstehen und Wortschatzerlernung. *Linguistische Berichte* 95, 1985, 46-63.

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Que faire des composés nominaux de l'allemand à la fin du 1er cycle? *Les langues modernes* LXXIX,3/4(1985), 30-38.

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Quelques ouvrages de vocabulaire espagnol. *Les langues modernes* LXXIX, 3/4(1985), 59-60.

Gardner, RC RN Lalonde and R Moorcroft

The role of attitudes and motivation in second language learning: correlational and experimental considerations. *Language Learning* 35,2(1985), 207-227.

Goodman, GS, HM Raith, R Guttentag and S Rao

Automatic processing of word meaning: intralingual and interlingual interference. *Child Development* 56(1985), 103-118.

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Investigation and analysis of English vocabulary of English majors in China. *Modern Foreign Languages* 1(1985), 1-6.

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Lexical inferencing: a study of procedures in reception. *Scandinavian Working Papers in Bilingualism* 5(1985), 63-86.

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Culture and vocabulary acquisition proposal. *Foreign Language Annals* 18,4(1985), 327-332.

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Surveying the needs and skills of the dictionary user. *Beiträge zur Phonetik und Linguistik* 48(1985), 289-297.

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Wer weiss schön was im Worterbuch steht? Plädoyer fur mehr Worterbucharbeit in Englishunterricht. *Die Neueren Sprachen* 84,6(1985), 580-595.

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Alternatives to dictionaries. **R Ilson** (Ed.) *Dictionaries, lexicography and language learning. ELT Documents* 120. Oxford: Pergamon Press. 1985. 115-121.

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Lexical knowledge and the teaching of vocabulary. In: **JC Richards** *The context of language teaching*. Oxford: Oxford University Press. 1985.

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The influence of Swedish on the English of Finnish learners. In: **H Ringbom** (Ed.) *Foreign language learning and bilingualism.* Abo: Abo Akademi. 1985.

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Rovea, J

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Salager, F

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Scherfer, P

Lexikalisches Lernen im Fremdsprachenunterricht. In: **C Schwartz and D Wunderlich** (eds.) *Handbuch der Lexikologie.* Athenäum 1985. 412-440.

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Schlyter, S and A Viberg

French and Swedish as targets in second language lexical acquisition. *Scandinavian Working Papers in Bilingualism*, 4(1985),110-135.

Schröder, K

Wortschatzunterricht, Wortschatzerwerb und Umgang mit Wörterbuchern. *Die Neueren Sprachen* 84(1985), 652-669.

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Vocabulairekennis in de vreemde taal na beëindiging van het onderwijs. *Toegepaste Taalwetenschap in Artikelen* 23,1(1985), 81-89.

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The time course of phonological code activation in two writing systems. *Cognition*19(1985), 1-30.

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The effect of background music on learning words. *Journal of the Society of Accelerative Learning and Teaching* 10,1(1985), 21-42.

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Underhill, A

Working with the monolingual learners' dictionary. In: **R Ilson** (ed.) *Dictionaries, Lexicography and Language Learning*. Oxford: Pergamon Press. 1985: 103-114.

van Kooten, G

Het tweetalig vertaalwoordenboek; Plaats, gebruik en implicaties voor het maken ervan. *Toegepaste Taalwetenschap in Artikelen* 21,1(1985), 105-110.

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Bibliographie sommaire: les lexiques francais-allemand. *Les langues modernes* LXXIX,3/4(1985), 37-38.

Vihman, M

Language differentiation by the bilingual infant. *Journal of Child Language* 12(1985), 297-324.

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Usage notes in dictionaries: the needs of the learner and the native speaker. In: **R Ilson** (Ed.) *Dictionaries, lexicography and language learning. ELT Documents* 120. Oxford: Pergamon Press. 1985. 75-80.

Williams, R

Teaching vocabulary recognition strategies in ESP reading. *ESP Journal* 4(1985), 121-131.

Woodward, T

From vocabulary review to classroom dictionary. *Modern English Teacher* 12,4(1985), 29.

Yamamoto, H

College students' retention of vocabulary learned during the thre years of senior high school. *Seinan Women's Junior College Bulletin* 32(1985), 67-92.

A preliminary analysis of this data identifies a total of 114 unique authors who contribute to the data set – about two and a half times the number of authors identified in 1984. As in previous years, the figures show that the field continues to be dominated by one-off studies: 98 of the 114 authors – 86% of the total – contributed to only a single paper in the dataset. Four authors contributed to three outputs (Alfes, Laufer, Meara and Ringbom), while twelve additional authors contributed to two outputs. These figures represent a major advance on 1984, where two papers was the highest number of outputs that any of the authors contributed to. The majority of authors who contributed to more than one output (Alfes, Ringbom, Broeder, Béjoint, Coenen, Coltheart, Extra, Masterson, Paillard, Palmberg, and Thoiron) did not publish any relevant work in 1984, and are therefore new contributors to the data set. Furthermore, of the four authors who contributed more than one paper to the 1984 collection, only Arnaud also appears as author of more than one paper in 1985. Bahrick, Bensoussan and Mägiste, who all made multiple contributions in 1984, do not appear at all in the 1985 author list. Clearly, there is a lot of churn here, another indication that the field as a whole is far from stable.

Although more authors are producing multiple papers in 1985, the actual figures are surprisingly low. The number of authors contributing N works to a research corpus generally follows a simple power law that is summarised by Lotka's Law (Lotka, 1926). Given the number of authors contributing just one paper in the data set, the law suggests that we might have expected five or six authors to be contributing to four or more outputs, but this is not the case for our data. Although the number of authors generating multiple outputs has increased a little in 1985, this increase has not kept up with the overall increase in the number of outputs. The field as a whole seems to remain short on Big Hitters with a substantial number of outputs.

3. Analysis

The citations from this data set were analysed using the same methodology that we used in the earlier papers – the co-citation method described in Appendix 1. This analysis identified a total of 1215 sources who were cited in the data set – again about twice as many as the sources identified for 1984. As usual, most of these sources are cited in only a single paper, but a number of sources are cited much more frequently than this. The most cited sources are Richards (10 citations) and Cohen (9 citations), followed by Meara (8 citations) and Krashen (7 citations). Six sources were cited six times (Corder, Faerch, Mackey, Nation, Ringbom and West) and seven sources were cited five times (Kolers, Lambert, Levenston, Macnamara, Oller, Palmberg and Rivers). The complete distribution is shown below in Table 2:

Table 2: *The distribution of citations in the 1984 data set*

frequency	10	9	8	7	6	5	4	3	2	1
cases	1	1	1	1	6	7	22	49	164	963

The large increase in the size of the data set means that we have no problem in identifying which citations should be included in the analysis for 1985. Conventional practice in co-citation analysis is that we identify the 100 most cited authors in our data-set. This figure is a conventional compromise. With the 1985 data, it would be theoretically possible to analyse the co-citation patterns of all 1215 sources who are cited in the data set, but the resulting maps would be too complex for us to interpret in any meaningful way. Similarly, we could work with a smaller number of sources, say the 50 most cited authors, but this risks oversimplifying the analysis. Given the distribution in Table 2, the best choice seems to be to work with the 88 sources who are cited in three or more 1985 papers. This threshold is slightly lower than we would like – included authors are cited in only about 4% of the total output – but it is a considerable improvement on what was possible in 1984 where it was necessary for us to include authors cited only twice in order to make up the numbers. Again, this is a sign that the field is maturing, though it clearly still has a long way to go.

The basic citation data was recomputed to identify all the co-citations between these 88 sources, and 1032 co-citation links were identified. These co-citations were mapped using the Gephi software package (Bastian, Heymann & Jacomy, 2009), and our preliminary analysis is shown in Figure 1.

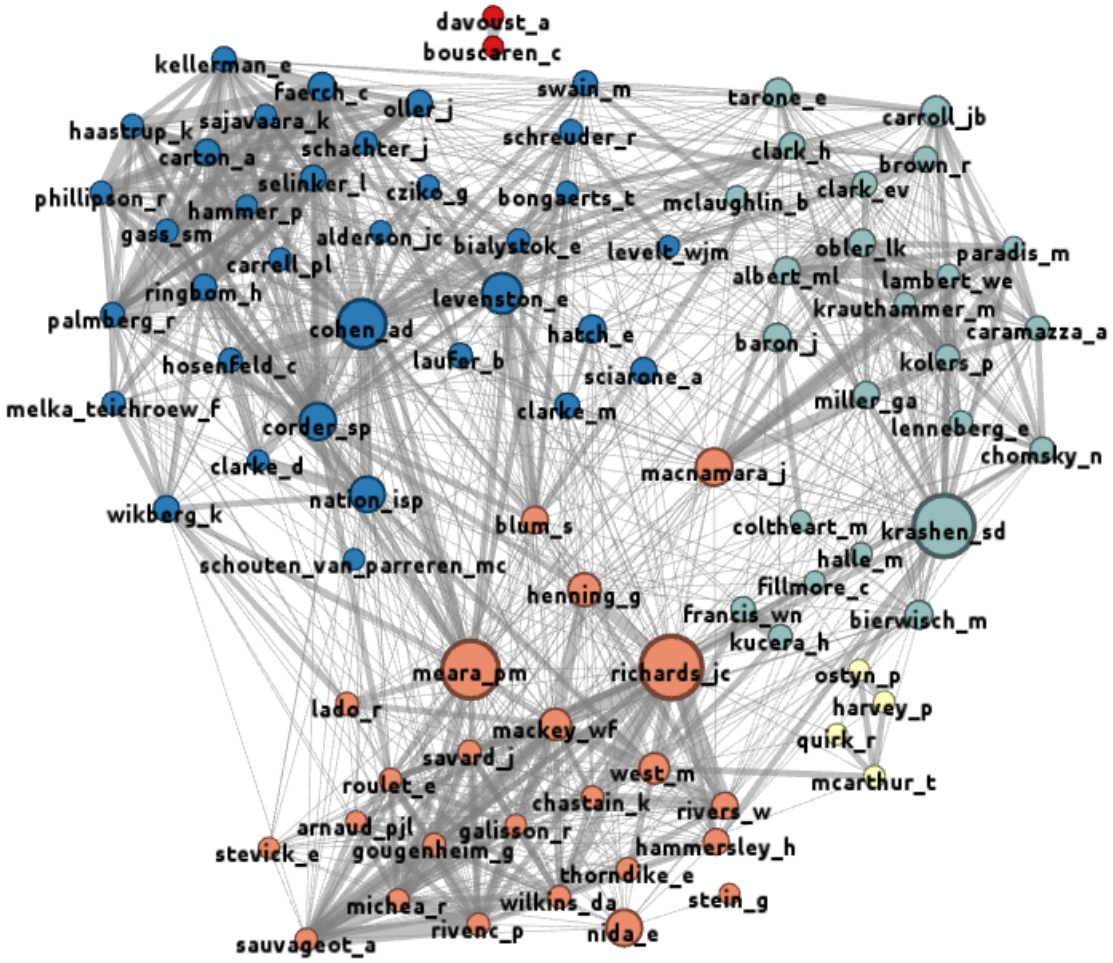

Figure 1: *Co-citation analysis of the 88 sources who are cited at least three times in the 1985 data set. Nodes are sized according to their betweenness centrality*

In clear contrast with the maps for 1982, 83 and 84, a very straightforward narrative emerges from this analysis. Gephi has found five clusters in this data set, four strongly connected clusters and a small detached one consisting of two members.

Davoust and Bouscaren, the two members of **Cluster I,** detached at the top of the map, produced a number of books covering English vocabulary for L1_French speakers at the end of the 1970s. This work is cited by a number of contributions in the special issue of *Les langues modernes*.

The other small cluster, **Cluster II**, in the SouthEast corner of the map comprises two sources concerned with semantics and vocabulary acquisition (Ostyn, Harvey) and two sources who deal with dictionaries (Quirk and McArthur). This cluster seems to be the succcessor to a cluster in the 1984 map that dealt with componential analysis and prototype theory.

Cluster III, in the NorthEast corner of the map, will be familiar from our earlier analyses. It is made up largely of social and developmental psychologists, and seems to capture some of the theoretical background work that the other two large clusters call on. In previous analyses, we have noted the importance of the Montreal group (here represented by Macnamara and Lambert), and a neurolinguistics strand (Albert, Obler and Paradis). We also find a child

language development strand in this group (Eve Clark, Herbert Clark, Brown and Lenneberg) and a dyslexia group (Coltheart and Baron). The remaining members of this cluster are predominantly influential and frequently cited linguists. This cluster is clearly the successor to the psycholinguistic cluster that figured so strongly in the 1984 map, but it is much reduced in size, and is much less self-referential than was the case in the earlier analysis. At the same time, this cluster has many links to cluster IV and cluster V described below, and seems to be fairly well integrated into the L2 vocabulary research effort.

The two remaining clusters are a new phenomenon – a coherent and substantial set of sources which are all concerned specifically with L2 vocabulary acquisition. What seems to differentiate these two clusters is that cluster IV, in the NorthWest of the map, is principally concerned with English as a second language, while cluster V at the Southern edge of the map is concerned with other languages, notably French as a second language.

Cluster IV consists mainly of Dutch and Scandinavian sources, though the two central figures in this cluster are based in Israel: Andrew Cohen and Eddy Levenston, as also is Batia Laufer. Again, as in 1984, we need to note the influence of *The Interlanguage Studies Bulletin: Utrecht* in this cluster. Levenston, Melka-Teichroew, Bialystok and Ringbom had all published influential vocabulary research in this journal (Ringbom 1978; Levenston 1979; Melka Teichroew 1982; Bialystok 1980) in the preceding couple of years. However, this work is not narrowly concerned with English Language Teaching: much of the work cited is interested in broader theoretical issues in vocabulary teaching, for example Melka Teichroew's work on Receptive and Productive vocabulary, Cohen's work on association and mnemonic methods of learning vocabulary, and particularly Corder and Selinker's theoretical work on Interlanguage.

Cluster V is also directly concerned with teaching foreign languages, but at first glance, this cluster seems to be mainly concerned with the teaching of languages other than English, particularly French. On reflection, however, I think that the main concern of this cluster is in fact the role of frequency counts in vocabulary teaching, rather than the teaching of French in particular. The 1985 special issue of *Les langues modernes* contained several articles addressing this question, and there was clearly some strongly expressed dissension about the importance (or not) of frequency counts among French linguists and language teachers at the time. Inevitably, most of these papers refer to the earlier seminal work of Gougenheim, Michéa, Rivenc and Sauvageot who authored a particularly important set of studies on basic French vocabulary *Le français fondamental* (Gougenheim et al., 1964). This work was heavily criticised by Galisson, while Savard and Richards (1970) also published a critical account of this work and its usefulness for language learners. Richards, who had also worked independently in the vocbulary area (Richards, 1974; 1976), actually emerges as the dominant influence in this cluster, but I think this is at least partly the result of an edited volume of readings dealing specifically with vocabulary teaching (Richards, 1980), and a particularly influential paper dealing with what it means to know a word (Richards, 1976; 1985).

Figure 2 shows the same data as Figure 1, but in this figure I have deleted all the weakest co-citation links (the links that appear only once in the mapping) in order to make the connections between the clusters easier to follow. This simplified map strongly emphasises the emergence of the Scandinavian influences on the research and the importance of Andrew Cohen as the lynchpin of this group. The simplified map emphasises too the strong links within

the Montreal group, and the central role of word frequency in Cluster V. The map also highlights the anomalous status of Macnamara, Meara and Blum: nominally these three sources form part of cluster V, but in fact their strongest links are to other clusters, suggesting that they may be playing an important role as mediators between the clusters.

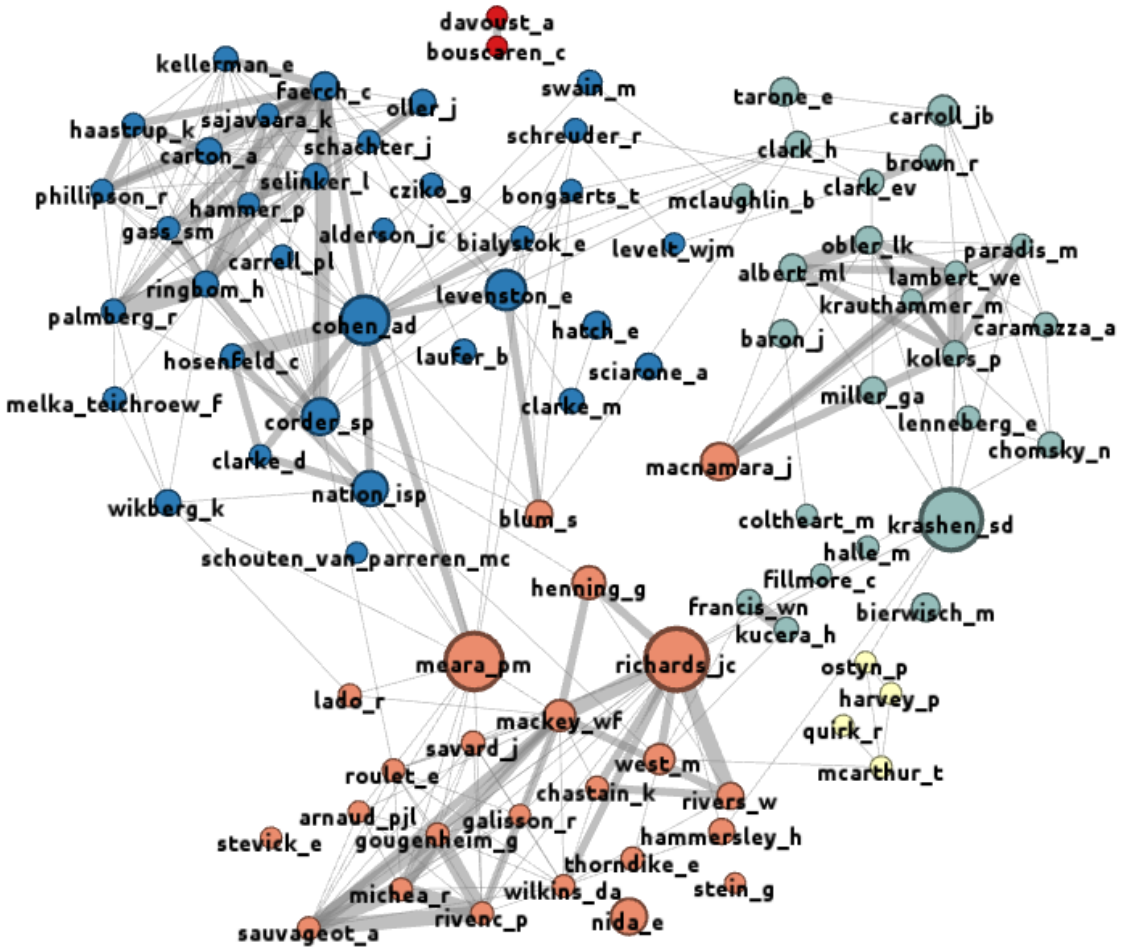

Figure 2: *A simplified version of Figure 1, with the weakest links removed*

Clearly, 1985 has seen some significant shifts in the research, with a number of new themes emerging that were not present in the 1984 data. However, we also have a great deal of continuity at the same time. Figure 3 shows the 1984-85 "survivors" – sources who are cited both in the 1984 data set and the 1985 data set. These survivors number 32. This total figure is higher than the equivalent figure for 1984, despite the fact that the 1985 map contains fewer nodes than the 1984 map. In percentage terms, about 36% of the sources survive from 1984 to 1985. I take this as an indication that the field is becoming less volatile, and more stable.

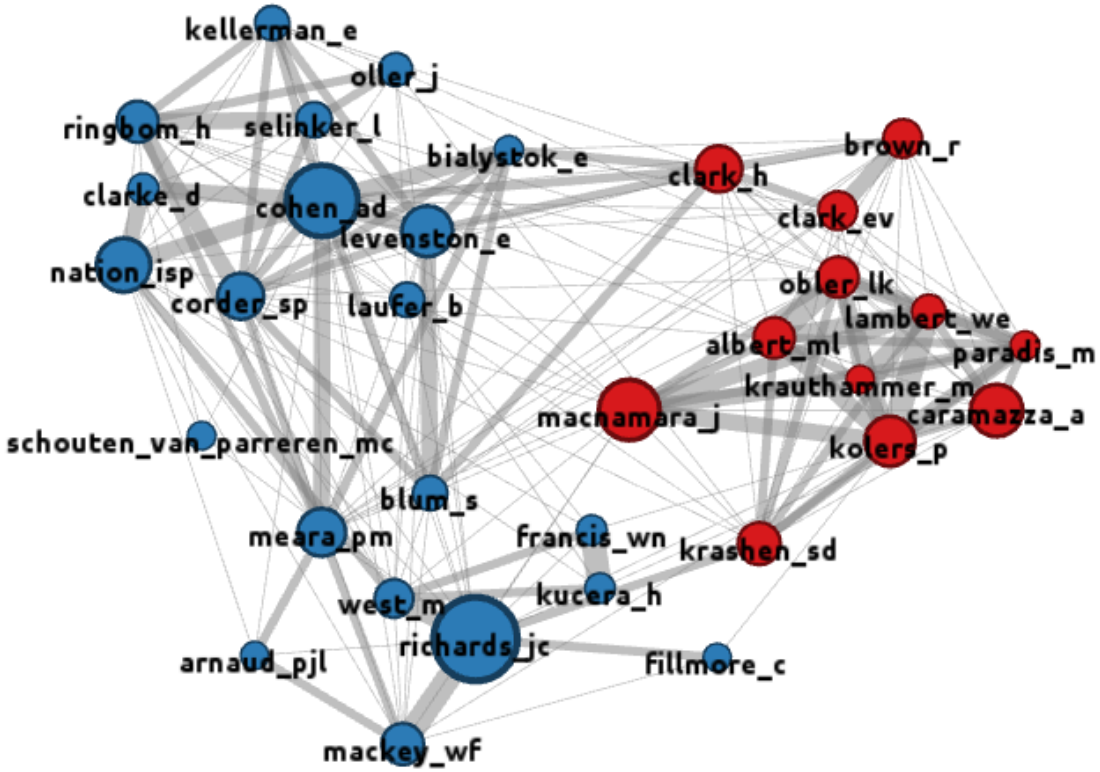

Figure 3: *The survivors from 1984-1985*

Gephi finds that these 32 survivors fall into two clusters – a small psycholinguistic cluster dominated by Macnamara, and a larger L2 vocabulary cluster dominated by Cohen, Richards and Nation. This is the first time that a coherent and easily identifiable L2 vocabulary group has appeared so clearly in the data, and it strongly suggests that a proper framework for thinking about L2 vocabulary acquisition is beginning to emerge. The psycholinguistics cluster is about the same size and has roughly the same composition as the psycholinguistic survivors from 1983-1984, though both the major influences from 1984 (Lambert and Kolers) seem to be less important in this data. Their place has been taken by another member of the Montreal group, John Macnamara, who is more of an educational psychologist than a psycholinguist. I take this to mean that this cluster is a stable group of influences as far as the L2 vocabulary research is concerned, but that the way this group is influencing the work of L2 vocabulary researchers may be shifting slightly. It is noticeable that the new L2 vocabulary group has a few stronger co-citations with the psycholinguistics group, mainly mediated through Herbert Clark, and the very tenuous links that characterised the 1984 data now appear to be greater in number and more varied.

Alongside this firming up of the core part of the map, 1985 also saw a significant number of new sources who had not appeared in the 1984 map. A separate analysis of these new entrants is shown in Figure 4. This figure is basically the same map as Figure 2, but with sources that appear in both the 1984 and the 1985 map removed. Gephi has re-analysed the clusters that appear in this smaller map, and as a result a new cluster of influences has been identified,

splitting cluster IV in two. This new cluster comprises Schreuder, Levelt, Sciarone, Bongaerts, and Hatch. With the exception of Hatch, this is clearly a Dutch group whose members are more often cited alongside the psycholinguists than is the case for the other members of cluster IV.

Overall, we have 56 new entrants to the 1985 map, which means that nearly two thirds of these sources are new-comers. This figure is slightly lower than the equivalent figure in the 1984 data. In the 1984 map, 86 nodes were newcomers who had not appeared in the 1983 map – some 78% of the total. For 1985, the new entrants represent 64% of the total sources. This is still a high level of churn, but it suggests that the overall picture might be stabilising. It is difficult to get a clear picture of the dynamics of L2 vocabulary from a detailed analysis of a single year's data, and the comparisons with the 1984 data are difficult to interpret because the 1984 data has a looser criterion for inclusion (two citations rather than three.) This problem will become less important in future reports as the number of papers available for analysis gets larger – in each of the years 1986, 1987, 1989 and 1990 the number of papers published exceeds 100. Meanwhile the trend identified here does look significantly different from the main trend that we identified in 1984. In that year, the majority of new influences were single researchers who did not form strong clusters. In 1985 what we have is the sudden emergence of whole new clusters of influence. This feels to me like a major change in the way the field is operating.

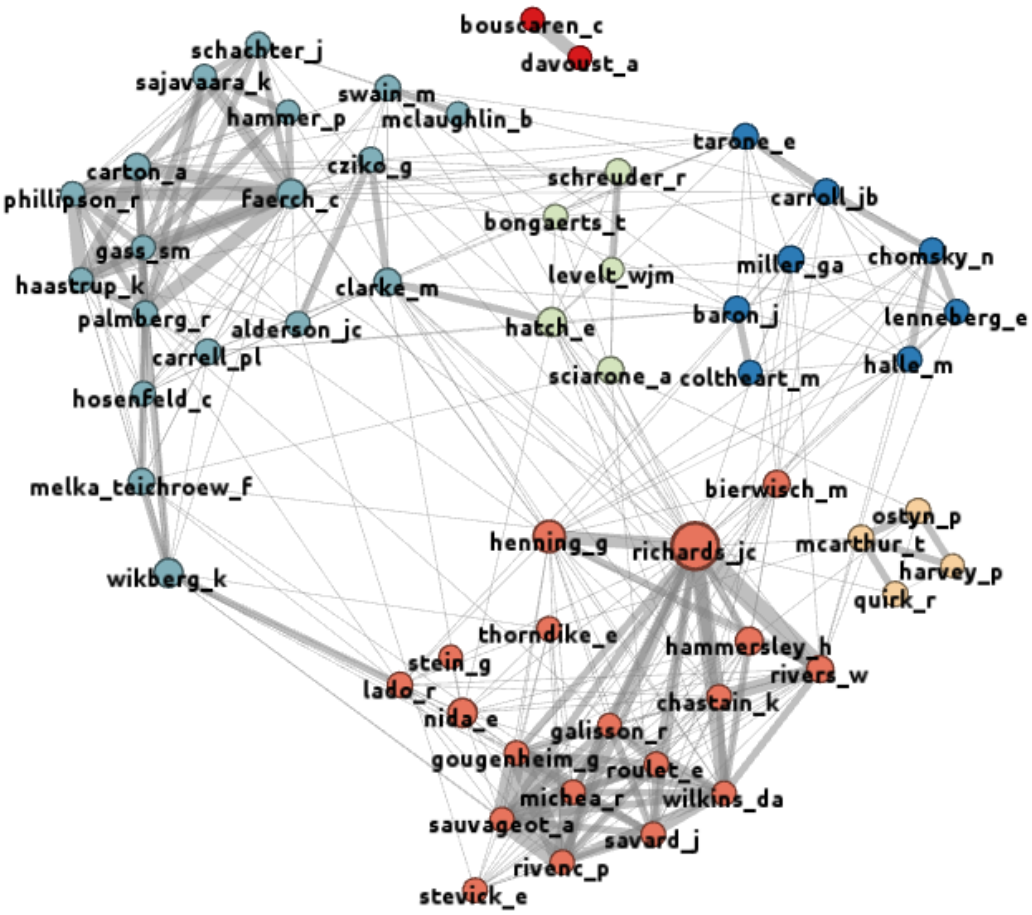

Figure 4: *The new sources in the 1985 data set*

Clearly, the best interpretation of this map is that two new streams of influence have emerged in the 1985 data. The new "Scandinavian" cluster does indeed represent a genuine innovation in the field, and size of the cluster as well as the strength of the co-citation links within this cluster suggest that it is unlikely to be an insubstantial flash in the pan. On the other hand, the cluster dominated by Richards is not really a new research area. Rather, the debate that is identified by this cluster – the role of frequency counts in language teaching – is one which is on-going in the literature. It surfaces from time to time, usually in response to changes in the language teaching curriculum imposed by an Education Ministry. The earliest discussion of the use of word frequency counts in curriculum design dates back at least as far as the 1920s (e.g. Henmon, 1924; Buchanan, 1927). In that sense, this cluster of influences appears to be a rehashing of old arguments, rather than a proper new development, although the sudden appearance of Jack Richards as the most significant influence in this cluster does perhaps suggest that something new is going on.

4. Discussion

So far, our discussion has been concerned with the obvious features of the co-citation maps in Figures 1-4, but it is important not to lose sight of other aspects of the 1985 data which do not appear explicitly in the maps.

Firstly, although the 1985 data set contains a number of papers in German, there is not really a German presence in the maps. Unlike the French sources, which tend to cite a common set of influences, the German outputs appear to be less focussed on a single topic, and more promiscuous in who they cite. As a result, the sources they cite do not reach the threshold for inclusion in the larger map. Additionally, although the German outputs do occasionally cite English language research, writers in English rarely cite German language research. This means that the German research, substantial though it appears to be, is largely invisible. This trend is exacerbated by the very different citation practices that are to be found in the German literature compared with the English language papers. For example, Alfes, who authored three papers in the 1985 data set, cites a total of 43 sources in his three papers, but only two of these sources are cited more than once (Kruppe and Thiems) in his own work. Of the other 41 sources cited in Alfes, only three are also cited by other papers in the dataset (Ilson, Kastovsky and Stein), and Alfes himself is cited by only one other author (Scherfer). In general, the German research seems to be detached from the rest of the work in this data set (though Scherfer does have some shared citations with the French research that we identified in Cluster V).

Much the same comment could be made about the French language publications in 1985. More than half of these publications have no citations that contribute towards the map. The outstanding author in this French group is Pierre Arnaud, who mainly cites English language sources, and is only infrequently cited by his French language colleagues.

Second, it is worth noting that a number of significant influences in the 1984 map are not cited often enough for them to appear in the 1985 map. The most notable loss is, of course, the psychologists who appear in a densely connected cluster that completely dominates the 1984 map. Only a handful of these sources survive into 1985, principally the members of Montreal group. This group remains influential, largely because of a shared interest in L1 vocabulary

acquisition. Nevertheless, the co-citation links between this group and the new Scandinavian vocabulary research cluster remain weak, and it seems likely that their influence will wane in the future. Most of the active researchers in the Scandinavian group seem to look to Corder and Selinker, and other linguists for their inspiration, rather than the models and theories developed by psychologists. Neither memory research nor neurolinguistic research figure in the 1985 map. The only new entrants in this group are Baron and Coltheart who are cited by authors working on L2 word recognition. This may represent a genuinely new research interest, but only the weakest co-citation links connect these two sources to the rest of the network, so that they appear as a detached subgroup in Figure 3. This does not bode well for the long-term growth of this sector of the field.

Thirdly, the 1984 cluster dealing with vocabulary attrition that we identified as a possible growth area (Bahrick, Bahrick and Wittlinger) has also failed to develop into a substantial research strand. Attrition does not figure as a major research interest in the 1985 map. Also missing is an obvious dictionary use cluster which looked as though it might emerge in the 1984 data, and most of the theoretical sources that deal with semantics no longer figure in 1985 either – Ryberg and Rosch who both looked to be central influences in 1984 were not cited by anyone in the 1985 data set. Likewise, corpus linguistics plays no obvious role in the 1985 dataset. We also identified an incipient L2 reading cluster in 1984, and that too has failed to materialise in 1985.

Finally, it is worth commenting on the position of Krashen in the 1985 data. Krashen was a minor figure in the 1984 data, with a few weak links to a number of the clusters. By 1985, Krashen has emerged as a very significant influence in L2 vocabulary acquisition research, second only to Jack Richards in terms of the betweenness centrality measure. Oddly, Krashen is only rarely cited alongside other L2 vocabulary researchers, and his strongest co-citation links are to be found with the pyscholinguistics group. Much of Krashen's later work (e.g Krashen 1989; Dupuy and Krashen 1992) would be explicitly concerned with L2 vocabulary acquisition, but by 1985 this was not the case. Rather he appears to be cited in this data set for his two books on second language acquisition, and his work on the Monitor Model (Krashen 1981 and 1982. That is, Krashen appears here as a general L2 acquisition theorist, rather than as an L2 vocabulary acquisition researcher.

5. Conclusion

This paper has presented a bibliometric analysis of the L2 vocabulary research that appeared in 1985. The dramatic rise in the number of research outputs for this year suggests that there was a renewed interest in L2 vocabulary research compared with previous years, and some significant shifts in the research priorities. Some of the promising research identified in 1984 seems to have petered out, or at least failed to develop in the way we might have expected, and a large number of the Significant Influences identified in 1984 no longer qualify as such in 1985. The field as a whole continues to be dominated by one-off studies, rather than on-going research programs.

Nevertheless, there is some evidence that a distinctive L2 vocabulary research program is beginning to emerge. The number of "survivors" from 1984-1985 is larger than the equivalent

figure in 1984, and the proportion of new entrants into the list of most significant influences is a bit smaller in 1985 than it was in 1984. Both these trends may indicate that the L2 vocabulary field is entering a new phase. The number of research clusters that we identified in 1985 is smaller and more focussed than what we find in the 1984 map. This strongly suggests that the field is beginning to stabilise. We noted the reduced importance of the psycholinguistic influences in the 1985 map, and the emergence of a distinctive new cluster of Applied Linguistics influences centred on Andrew Cohen and Eddie Levenston, backed up by a group of Scandinavian researchers. All this suggests that an autonomous L2 vocabulary research thrust is about to become active in 1986. We will explore this development in our next paper in this series.

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Appendix 1

Co-citation analysis

The co-citation method was developed by Small in a number of papers published in the 1970s (e.g. Small, 1973). This approach, which was actually built on earlier bibliometric work by Price (1965), has been extensively used to analyse research in the natural sciences (e.g. White & Griffith, 1981) but does not seem to have been adopted as a standard tool by researchers in the Humanities.

The raw data for a co-citation analysis consists of a list of all the authors cited in the set of papers to be analysed. For each paper in the data set, we make a list of every author that the paper cites; for each paper, each cited author counts only once, regardless of how many times they are cited in the paper; and for a cited paper with multiple authors, each of the contributors is added to the author list.

This raw data is then used to construct a large matrix showing which authors are cited together in each of the papers in the data set. The matrix can then be analysed using a program such as *Gephi* (Bastian, Heymann, & Jacomy, 2009). Gephi performs a cluster analysis on the data, groups together authors who tend to be cited alongside each other in a number of papers, and outputs a map which shows the composition of the clusters and the relationship between them. The clusters are generally taken to represent "invisible colleges" in the data – i.e. groups of researchers who share similar reference points and a common research focus.

Appendix 2

Items published in 1985 but excluded from the analysis reported in this paper.

Beheydt, L

The semantisation of vocabulary in foreign language learning. Paper presented to the 1st ISAPL Conference, Barcelona, 1985.

Beheydt, L

Dossier 'CONTEXT'. Een woordenschatverwervingsprogramma op huiscomputer. [CONTEXT: a vocabulary learning program for a microcomputer]. Nederlands Taalunie.

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A semantic approach to collocations: a means to reduce the random character of the co-occurrence of lexical items. *ABLA Papers* 9(1985), 37-61.

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Relevance, ad hoc concepts and analogy

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Abstract

In Relevance Theory (RT) concepts are "enduring elementary mental structure[s] capable of playing different discriminatory or inferential roles on different occasions in an individual's mental life." (Sperber & Wilson, 2012, p. 35). They may be lexicalized atomic concepts, ad hoc atomic concepts not encoded in our linguistic system and some innate concepts (Carston, 2010, p. 14). Concepts may be shared between interlocutors, idiosyncratic but grounded in common experience or fully idiosyncratic and non-communicable. They are "arrived at through the mutual pragmatic adjustment of explicature and contextual implicatures." (Carston, 2010, p. 10). Ad-hoc concepts are "pragmatically derived, generally ineffable, non-lexicalized […] rough indication to aid readers in understanding what we have in mind in particular cases." (Carston 2010, p. 13). Concepts encoded will only occasionally be the same as the ones communicated because words are used to convey indefinitely many other ad hoc concepts constructed in a given context (Sperber & Wilson, 2012, p. 43). Apparently, RT restricts the construction of ad hoc concepts by the search for relevance (definitions of (optimal) relevance, principles of relevance and relevance-theoretic comprehension procedure) and the potential connection (narrowing or broadening) between the denotations of the encoded and constructed concepts. The mechanisms underlying category narrowing/broadening seem not to be explicitly described and explained. What provides a very general but, at the same time, precise account of concept-relatedness is Hofstadter & Sander's (2013) understanding of analogy. The question posed here is whether this understanding may help explain concept-relatedness in Relevance Theory.

Keywords: Relevance Theory, analogy, ad hoc concepts, concept-relatedness

In Relevance Theory, in both its standard version (Sperber & Wilson, 1986/95) and later extensions (Carston, 2012; 2013), no unique cognitive mechanism of ad hoc concept construction is identified. Rather, such concepts emerge as a result of category narrowing/broadening in the process of "the mutual pragmatic adjustment of explicature and contextual implications" (Carston, 2010, p. 10), triggered by communicators' search for relevance in the standard version whereas their construction from non-conceptual word meaning is left unaccounted for (Mioduszewska, 2015).

Hofstadter and Sander's (2013) Analogy Theory (AT) claims analogy to be the cognitive process underlying conceptualization and categorization. The ongoing, constant, automatic, spontaneous analogy-making process explains and predicts construction or retrieval of ad hoc

concepts. The theory does not explain, however, what stops the process in individual cases of utterance comprehension. Relevance Theory predicts that processing stops when communicators' expectations of relevance are satisfied.

Relevance Theory (RT)

Relevance Theory (Sperber & Wilson, 1986/95), a theory of communication and cognition, is a model of ostensive-inferential (verbal) communication the fundamental assumptions of which are the two principles of relevance, the concept of (optimal) relevance and relevance-theoretic comprehension procedure.

Two principles of relevance:

Cognitive Principle of Relevance

> Human cognition tends to be geared to the maximization of relevance (Wilson & Sperber, 2004, p. 7).

Communicative Principle of Relevance

> Every ostensive stimulus conveys a presumption of its own optimal relevance (Wilson & Sperber, 2004, p. 9).

The definitions of relevance:

Relevance of an input to an individual

a. Other things being equal, the greater the positive cognitive effects activated by processing the input, the greater the relevance of the input to the individual at that time.
b. Other things being equal, the greater the processing effort expended, the lower the relevance of the input to the individual at that time (Wilson & Sperber, 2004, p. 10).

Optimal relevance

"An ostensive stimulus is optimally relevant to an audience iff: (a) It is relevant enough to be worth the audience's processing effort; (b) It is the most relevant one compatible with communicator's abilities and preferences" (Wilson & Sperber, 2004, p. 10).

When searching for the relevance of an ostensive stimulus, the hearer/reader uses the relevance-theoretic comprehension procedure, which reads as follows:

Relevance-theoretic comprehension procedure:

a. Follow a path of least effort in computing cognitive effects. Test interpretive hypotheses […] in order of accessibility;
b. Stop when your expectations of relevance are satisfied (Wilson & Sperber, 2004, p. 13).

Sub-tasks in the overall comprehension procedure

a. Constructing an appropriate hypothesis about explicit content (in relevance-theoretic terms, explicatures) via decoding, disambiguation, reference resolution, and other pragmatic enrichment processes.
b. Constructing an appropriate hypothesis about the intended contextual assumptions (in relevance-theoretic terms, implicated premises).
c. Constructing an appropriate hypothesis about the intended contextual implications (in relevance-theoretic terms, implicated conclusions) (Wilson & Sperber, 2004, p. 16).

The fundamental assumptions constitute tools of describing and explaining the comprehension process during any form of communication triggered by recognizing an ostensive stimulus, which comes with a guarantee of its own optimal relevance (communicative principle of relevance). Since the stimulus is assumed to be relevant, the communicator processes it in order to maximize its relevance, as predicted by the cognitive principle of relevance. Processing the stimulus follows the relevance-theoretic comprehension procedure. In constructing hypotheses about the speaker's explicit and implicit meaning, the hearer recognizes, activates and/or constructs concepts for which the stimulus provides clues.

Relevance Theory predicts the (mental) existence of a variety of concepts such as lexicalized atomic concepts, mental concepts not encoded in our linguistic system, some innate concepts (Carston, 2010, p. 14) and newly constructed (or possibly retrieved) ad hoc concepts.

Concepts are "enduring, elementary mental structure[s] capable of playing different discriminatory or inferential roles on different occasions in an individual's mental life" (Sperber & Wilson, 2012, p. 35). Ad hoc concepts are "pragmatically derived, generally ineffable, non-lexicalized [...] rough indication to aid readers in understanding what we have in mind in particular cases" (Carston, 2010, p. 13). Ephemeral representations of particulars and complex conceptual structures are not concepts, while stabilized, idiosyncratic, non-lexicalized concepts based on private experience are concepts (Sperber & Wilson, 2012, pp. 35-36). Lexicalized (encoded) atomic concepts and ad hoc concepts are related.

Concept-relatedness in Relevance Theory

In Relevance Theory,

> [...], the words in a language can be used to convey not only the concepts they encode, but also indefinitely many other related concepts to which they might point in a given context. [...] The occurrence of a word in an utterance provides a piece of evidence, a pointer to a concept involved in the speaker's meaning. [...] It may so happen that the intended concept is the very one encoded by the word, which is therefore used in its strictly literal sense (Sperber & Wilson, 2012, p. 43).

In every case, the conveyed concept has to be contextually worked out. Here, Example I illustrates the process.

> Example 1 (Wilson, 2011, pp. 198, 207)
> Context: Two friends John and Peter discuss their friend Robert.
> John: How good a friend is Robert?
> Peter: Robert is a computer
> sentence uttered: *Robert is a computer*
> lexical meaning of *computer*: COMPUTER[1] (robert) (a type of machine)

[1] Capital letters mark concepts.

On this interpretation, Peter does not find the utterance to be relevant enough, so he must have meant COMPUTER* (robert) (a type of machine + some humans). John does not find the first interpretation COMPUTER (robert) to be relevant enough, so he continues processing, arriving at COMPUTER** (robert) (a type of machine + some humans + ?) with the implicature *Robert lacks feelings, processes information well*, etc. The contextually worked out COMPUTER** is related to the encoded concept COMPUTER. Such concept relatedness rests on the relatedness of the concepts' denotations and the potential relatedness of the concepts' logical entries. The final interpretation of the constructed concepts COMPUTER* and COMPUTER** is conditioned by the search for relevance, following the two principles of relevance.

The content or semantics of a concept is its denotation. The encoded concept's (COMPUTER) denotation (a type of machine) is its meaning. The word encoding the concept (*computer*) inherits its denotational semantics (a type of machine).

The concepts communicated by the use of a word (*computer*) (COMPUTER*, COMPUTER**) have a narrower (more specific) or/and broader denotation (a type of machine + some humans + ?) than the encoded concept (COMPUTER). The relatedness of denotations reflects concepts-relatedness (computer-like human and non-human entities, including computers).

Another way of accounting for concept-relatedness comes from the assumption that the content or semantics of a concept is a set of inference rules (logical entry), constituting the truth-conditional semantic content of a concept. The relatedness of the logical entries of COMPUTER, COMPUTER* and COMPUTER** should account for the relatedness among the three concepts. This works on the assumption that words map onto addresses in memory: lexical, encyclopaedic and logical entries of concepts, with encyclopaedic entries providing grounds for drawing implicated premises in utterance interpretation.

The third relevance-theoretic mechanism accounting for concept-relatedness is the communicators' search for relevance of the utterance interpretation. In Example I, Peter's search for relevance of *Robert is a computer* leads him to COMPUTER*, John's search for relevance of the same utterance possibly leads him to COMPUTER**, in both cases resulting in the relatedness of COMPUTER, COMPUTER* and COMPUTER**.

To sum up, concept-relatedness in Relevance Theory is encapsulated by three mechanisms.

(1) Concept-relatedness results from their denotational relatedness (narrowing and/or broadening a concept's denotation).

(2) Concept-relatedness results from the similarity and/or difference of the concepts' logical entries.

(3) Concepts-relatedness is an outcome of the hearer's search for the relevance of the interpretation of the speaker/writer's ostensive stimulus, as predicated by the two principles of relevance, the understanding of relevance itself and the relevance-theoretic comprehension procedure.

The first two mechanisms are valid on the assumption that a concept's denotation and logical entries are always determinable. The examples below cast doubts on the possibility of these requirements being fulfilled.

Example II (Hofstadter & Sander, 2013, pp. 228-229)

a)	This animal is a pig.	[PIG]	(animal)
b)	This girl is a pig.	[PIG*]	(dirty and sloppy entity)
c)	This damn word processor is a pig.	[PIG**]	(negative sloppy entity)

The denotational relatedness of the concepts PIG, PIG*, PIG** is not easily (if at all) determinable. Neither is the logical entry of PIG** available.

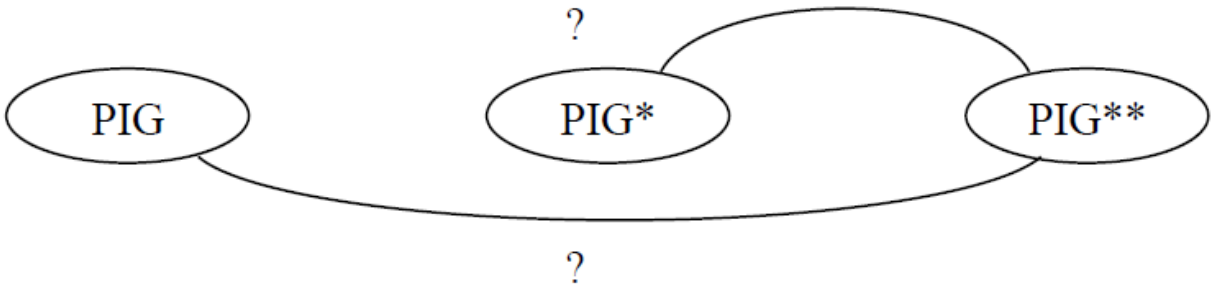

Figure 1: *Concept-relatedness in RT (a). The denotational and inferential relatedness of the three concepts is not determinable.*

The only basis for the construction of PIG*, PIG** ad hoc concepts is the communicators' search for relevance.

Example III (Hofstadter & Sander, 2013, pp. 185-186)

a)	Let's have coffee.	[COFFEE]	(a typical coffee)
b)	Coffee?	[COFFEE*]	(hot drink after a meal)
c)	Let's go and have some coffee.	[COFFEE**]	(a quick (social) beverage)

In this example, the denotational and inferential relatedness of the three concepts COFFEE, COFFEE* and COFFEE** is not easily determinable. Again, the only ground for the concepts' construction and relatedness is the communicators' search for relevance.

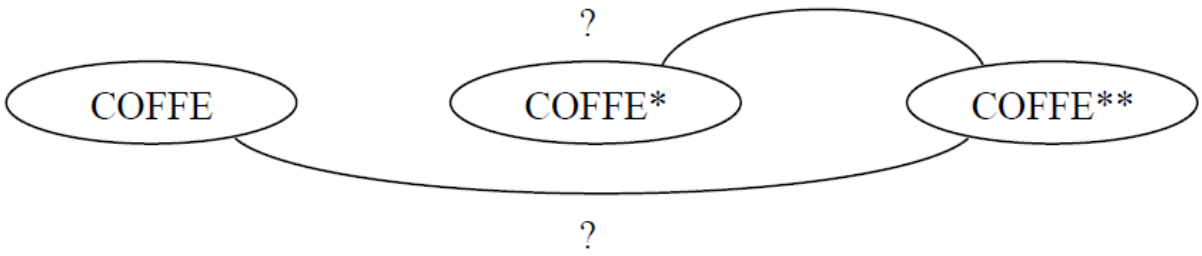

Figure 2: *Concept-relatedness in RT (b).*

Hofstadter and Sander's (2013) Analogy Theory provides a mechanism of concept-relatedness that sheds new light on ad hoc concept construction.

Analogy Theory (AT)

According to Hofstadter and Sander (2013), analogy-making is the essence of thinking and cognition. Analogy-making, categorization and conceptualization are in fact three labels describing the same phenomenon. Since there is no thought without concepts and there are no concepts without analogy, analogies are "the fire and fuel of thinking" (Hofstadter & Sander, 2013).

Analogy is the mapping of some mental structure on another mental structure with there being some similarity/resemblance between the structures, via abstraction, that is analogy-driven category extension (e.g. generalizing abstraction B ----- A, with B being a subcategory of A), resulting in markedness of narrower categories and the unmarkedness of broader categories.

Analogy is the very essence of thought, being a fundamental, automatic and widespread cognitive process, occurring below the conscious threshold. The triggering of memories by analogy is the essence of being human. Analogy works at all levels of verbal and non-verbal communication. Humans compare what is happening to them now with what happened to them in the past. For example, the proverb *One should never try to catch a falling knife* activates an analogy-making driven concept of huge, irrepressible forces against which one has no power and which would carry one off to one's doom if one were to risk to try to stop them (Hofstadter & Sander, 2013, p. 28).

Analogy maps one mental structure on another mental structure. New concepts (e.g. HUB) influence 'more primitive' concepts (AIRPORT). At first there was "airport", and then "hub". But once hub exists, airport is influenced. In the same vein, the act of metaphorization is a way of extending our categories, the goal being to understand more directly and intensely that which surrounds us.

The mental structures on which analogy operates are conceptual in nature. In AT concepts equal categories. They are mental structures created over time, which evolve and contain information in an organized way, allowing access to it.

A concept/category is "an abstract pattern in the brain that stands for some regular, recurrent aspect of the world […] to which any number of different words/'signs' point." (Hofstadter & Sander, 2013, p. 34). Concepts may be labelled or unlabelled, as in the case of the concept which may be verbalized as „that time I found myself locked outside my house in bitterly freezing weather because the door slammed shut by accident." (Hofstadter & Sander, 2013, p. 20). Conceptualization is automatic and biologically bestowed. For example, the stimuli one perceives being at an airport allow for the recovery or construction of categories via an automatic, unconscious process of triggering them, and this comes about the way of analogy with familiar categories (Hofstadter & Sander, 2013, p. 33).

Such categorization/conceptualization is the graded, grey, shaded linking of an entity (situation) to a prior category in one's mind, giving the feeling of understanding and anticipating future events. The same non-stop categorization through analogy-making applies from the mundane to the sophisticated understanding of utterances.

Concepts, that is mental structures, consist of a specific/concrete instance and a halo. Concepts' halos account for the vague blurring and flexible quality of the concept's core. It thins

out as one moves further out from the core. The fuzzy boundaries of categories are inherent in the act of categorization (Hofstadter & Sander, 2013, p. 62).

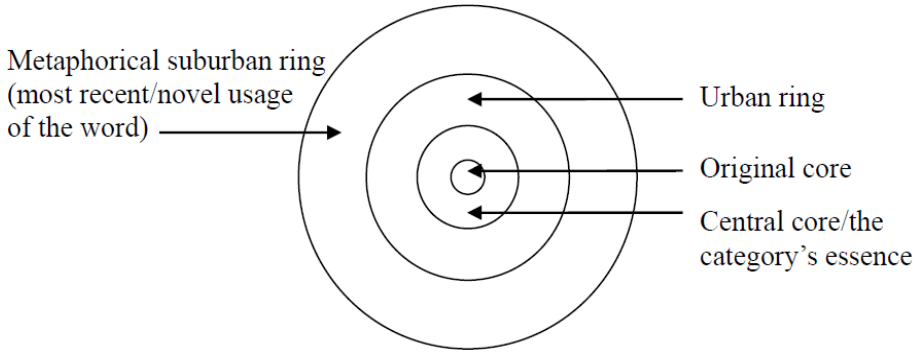

Figure 3: *Concept scheme in AT.*

The scheme is dynamic. Mental categories have tiny, almost solid central cores, which can move over time whereas outer rings and shells reflect repeated acts of extension due to perceived analogies. In this way what was once metaphorical gradually may become the essence.

> A category has an ancient core, some commercial zones, some residing zones, an outer ring, and then suburbs that […] shade off into countryside. One passes smoothly and continuously from a concept's core to its fringes. It results from a spectrum of analogies from the simplest to the most far-fetched. (Hofstadter & Sander, 2013, p. 65).

Concepts, which equal categories, are the outcomes of a long series of spontaneous analogies between a freshly perceived stimulus and the old mental analogy with only one member or a highly developed mental category based on the same mechanism. Their core meaning is their denotation (abstract skeleton). Their halos are their periphery. Concepts, both their cores and peripheries, exist in multidimensional spaces.

> The idea of a multidimensional space in which concepts exist, somewhat like separate points (core), however around each such point there is a halo that accounts for the vague blurry and flexible quality of the concept and this halo becomes even more tenuous as one moves further out from the core. (Hofstadter & Sander, 2013, p. 50).

Concepts are densely stitched together through relations of similarity and context. In multidimensional conceptual spaces, the most common concepts for a culture, era, etc. constitute the core items (for example body parts, classes of animals, plants, things to eat and drink). Near the centre, there are concepts which (quasi) universally convey part of the human conditions. Rings and shells of conceptual spaces are their periphery. Rings are less frequently used concepts (for example thanks, barn, fog) and shells are not frequent at all (for example frowning, fingernail-biting, income tax). The process of categorization/ conceptualization is ongoing because "the human mind is […] seeking novelty" (Hofstadter & Sander, 2013, p. 65) in order to understand that which surrounds us. As a consequence, the set of metaphors at one's disposal cannot be limited or fixed.

The process of encoding is conceptual because purely image-based processes would be insufficient. Events are encoded (perceived, distilled, stored) in terms of the prior concepts that we have acquired.

All language expressions: words, phrases, idioms, proverbs, formulaic expressions, fables, grammatical patterns are conceptual in nature. All words involve concepts and are concept-related. Categories/concepts, which are mental entities, are more numerous than words, which is explained by the existence of words with multiple senses, categories with no verbal labels, categories expressed by phrases, compound words, acronyms, idiomatic phrases and idioms, sentences and sentence fragments, proverbs and fables.

Concept-relatedness in Analogy Theory

In Analogy Theory, concepts extend through spontaneous analogies, growing in generality or/and becoming more discriminatory. Further distinctions, required and achieved by experts, co-occur with establishing broader categories. Both processes are visible in compounds, idioms, proverbs, catch phrases as well as in building up concepts with no verbal labels.

A single item (entity) belongs to lots of categories. Our mental life consists in placing entities in one category and then in reassigning them to another category. Context changes categorization and modifies our perception. The members of a category change with the given context. A single word in a given language can denote different categories, and at different levels of category abstractions. "In language [...] category membership [is] shifting [...] thanks to the phenomenon of marking, which allows an entity to shift its category membership without changing its lexical label, but simply by changing the level of abstraction that applies to that level" (Hofstadter & Sander, 2013, p. 193).

Objects and situations move from one category to another easily and unconsciously. Such flexibility and creativity result from the human faculty of extending categories and making maps between them. Concepts develop through category extensions from one member, through cores and halos. Analogy is the motor of all such extensions. The extension is the result of the fact that the human mind has the abilities to abstract to deal with the world's vast diversity.

Examples II and III (recalled below) illustrate different levels of abstraction.

Example II
Lexical label: *pig*

a) PIG: concrete category, animal
b) PIG*: category of higher level of abstraction, dirty and sloppy entity
c) PIG**: utmost level of abstraction, negative, sloppy entity

The three concepts: PIG, PIG*, PIG** are related by the abstraction level (from core to periphery).

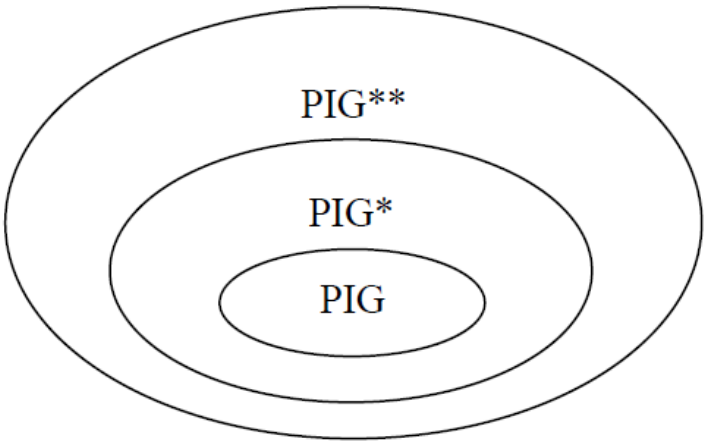

Figure 4: *Concept-relatedness in AT (a).*

Example III
Lexical label: *coffee*
a) COFFEE: smallest abstraction level, a typical coffee
b) COFFEE*: one abstraction level up, an after-meal hot drink
c) COFFEE**: utmost level of abstraction, a quick (social) beverage

The three concepts: COFFEE, COFFEE*, COFFEE** are related by the abstraction level (from core to periphery).

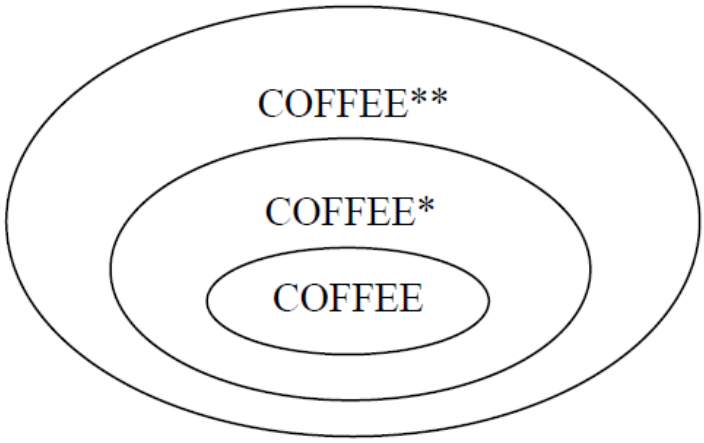

Figure 5: *Concept-relatedness in AT (b)*

The words *pig* and *coffee*, depending on context, may lead to different conceptualizations by spontaneous analogy-making between the new stimulus and old concepts in memory. The parallel inference-making in each case is understood as introducing new mental elements into a situation that one is facing. Such elements find room in the concepts' halos. Any situation can be categorized in a limitless number of different fashions. Sometimes we wish to make distinctions, and sometimes we wish to see commonalities. Distinguishing things consists in aligning them to different categories. Our adaptability results from our ability to categorize things in different ways. That is why using the same words by different people may mean

different categories. That is why 'metaphorical' meanings may take on a life of their own, becoming autonomous new meanings.

In analogy-based approach, in which conceptualization and categorization are near synonyms, category/concept extensions/abstractions explain how and why one label may activate a variety of concepts and show how they are related.

The question that does arise in this approach is what makes the analogy-making process stop. Here Relevance Theory provides an answer – communicators stop processing when their expectations of relevance are satisfied, as predicted by the relevance-theoretic comprehension procedure.

Relevance, analogy and ad hoc concepts

Both Relevance Theory and Analogy Theory are general, powerful cognitive theories. Among their goals, explaining the comprehension process is one that they share. Both the theories base on some general cognitive principles: for Relevance Theory they are the cognitive and communicative principles of relevance, whereas for Analogy Theory it is the automatic, spontaneous analogy-making process. Apart from the principles, both theories assume the existence of a psychologically real mechanism of stimuli interpretation. In Relevance Theory, it is the relevance-theoretic comprehension procedure, and in Analogy Theory, it is the process of category extension through the process of abstraction. Both theories propose an interpretation of categorization and conceptualization, claiming at the same time its psychological reality, generality or even universality.

In the two theories, concepts are defined in a similar vein. In Relevance Theory, concepts are "enduring elementary mental structure[s] capable of playing different discriminatory or inferential roles on different occasions in an individual's mental life." (Sperber & Wilson, 2012, p. 35). In Analogy Theory, a concept/category is " an abstract pattern in the brain that stands for some regular, recurrent aspect of the world […] to which any number of different words/'signs' point" (Hofstadter & Sander, 2013, p. 34).

Both theories assume that the human mental lexicon is vaster than the set of lexicalized concepts. According to Relevance Theory, "the words can be used to convey not only the concepts they encode but also indefinitely many other related concepts to which they may point in a given context" (Sperber & Wilson, 2012, p. 43). According to Analogy Theory, a single word in a given language can denote different entities and a single item (entity) may belong to lots of categories (Hofstadter & Sander, 2013, p. 193).

Both theories agree that the content (meaning) of a concept is its denotation.

Although similar in some general goals, Relevance Theory and Analogy Theory also differ in many important aspects. Relevance Theory is a theory not only of cognition but also of communication, so one of its main goals is to explain how people communicate. The proposed account is a model of ostensive-inferential communication, stemming from Paul Grice's theory of inferential communication, but significantly extended and elaborated in relevance-theoretic terms. Analogy Theory claims that analogy-making is not only responsible for categorization or conceptualization processes but also constitutes the very essence of thinking.

The two theories also differ in what types of concepts they admit. In Relevance Theory, concepts are divided into lexicalized atomic concepts, ad hoc concepts and other concepts not encoded in our linguistic system, possibly also some innate concepts. In the standard version of the theory, lexicalized concepts are accessed through three addresses in memory: lexical, logical and encyclopaedic to which the relevant word takes the communicators. In Analogy Theory, only one type of concepts is assumed. All concepts have cores and peripheries (halos), all of them are both input to and output of the analogy-making process. What is more, according to Analogy Theory, all language expressions are conceptual in nature: words, phrases, sentences, sentence fragments, longer texts such as fables, idioms, proverbs, metaphorical expressions, aphorisms, syntactic and potentially even phonological structures. In Relevance Theory, not all language expressions are claimed to be conceptual in nature. The theory introduces the idea of procedural meaning, the existence of pro-concepts or even of non-conceptual, non-semantic schematic word meaning (Carston, 2012; 2013).

As discussed at length in "Some remarks on non-conceptual word meaning and truth-conditional content in Robyn Carston's pragmatics" (Mioduszewska, 2015):

> The main theses of Robyn Carston's (2013; 2012) pragmatics, concerning the stable/standing meaning of three open-class items, that is nouns, verbs and adjectives are as follows: (1) Stable (lexicalized) word meanings are non-conceptual, that is non-semantic (Carston, 2013, p. 184). Words do not encode full-fledged concepts; in fact, there is no literal, encoded meaning of lexical items (Carston, 2013, p. 200). As in RT lexical pragmatics, words are merely pointers to or evidence for a speaker's meaning; (2) "Each word comes with its own distinct but schematic meaning, which functions as a constraint on the general pragmatic process of accessing or constructing a concept, a process which is wholly motivated by the goal of the pragmatic system which is to deliver speaker meaning." (Carston, 2013, p. 200). (3) In view of the schematic, non-conceptual stable meaning of open-class words, the pragmatic inferential process of constructing (contextual) ad-hoc concepts becomes obligatory (Carston, 2013, p. 187). This process allows for only one of a range of concepts to be the first one accessed or constructed, as determined by considerations of relevance; (4) Word meanings are conceptually underspecified (Carston, 2013, pp. 184, 187, 196, 201). (Mioduszewska, 2015, pp. 6-7)

This development of Relevance Theory does not provide any mechanism of concept construction that would allow for the question of concept-relatedness to be answered.

Relevance Theory and Analogy Theory also differ in their interpretation of ad hoc concepts and their construction. Hofstadter & Sander (2013) do not introduce the notion of ad hoc concepts at all because there is no need for them in their theory. Ad hoc concepts in Relevance Theory are 'regular' concepts in AT by means of category extensions and abstractions.

As already stated, in Relevance Theory, ad hoc concepts are "pragmatically derived generally ineffable, non-lexicalized […] rough indication to aid readers in understanding what we have in mind in particular cases." (Carston, 2010, p. 13). They are arrived at through the mutual pragmatic adjustment of explicatures and contextual implications. Any activation of the process of category narrowing and broadening is explained by the search for relevance, but the nature of the process is not fully explained.

Another important difference between the two theories is their understanding of inference. In Analogy Theory, inference is understood as introducing any new mental element in the comprehension process. In Relevance Theory, with its modular view of the mind, the inferential deductive (logical) device is a separate mental module which allows the theory to postulate the existence of elimination deductive rules and, derivatively, of analytic, synthetic and contextual implications and implicatures.

In Analogy Theory, the analogy-making process maps a mental structure on another mental structure, with some similarity or resemblance between the structures secured by the fact that the structures are linked via category abstraction, that is analogy-driven category extension, resulting in markedness of narrower categories and unmarkedness of broader categories. In Relevance Theory, the connection between the (possibly encoded) atomic concepts and ad hoc concepts derives from the relatedness of the concepts' denotations and their logical entries. The content of the relatedness depends on the fulfilment of communicators' search for relevance, thus being individual-relative.

In Analogy Theory, concepts exist in a multidimensional space, like separate points (cores) around which there is a halo accounting for the flexible quality of the concept. In Relevance Theory, concepts do not have cores and peripheries, but the utterances of which they are part may trigger strong, core-like implicatures and an array of weak implicatures, which perform the role of a concept's periphery.

Thus, the word *computer* in Example I in Relevance Theory activates the lexicalized atomic concept COMPUTER (machine). Since this concept does not secure the utterance's relevance, in the process of mutual pragmatic adjustment, new ad hoc concepts COMPUTER*, COMPUTER** are created. The three concepts are distinct.

Figure 6. *Distinct concepts in RT*

The relatedness of these three concepts exists if the search for relevance requires the same, wherein it should derive from the relatedness of the three concepts' denotations and of their logical entries. However, the denotations of COMPUTER* and COMPUTER** are not determinable, so the relatedness among them cannot be established. In Analogy Theory, the lexicalized concept COMPUTER constitutes the core of the concept the periphery of which, that is COMPUTER* and COMPUTER**, is related to the core by way of category abstraction.

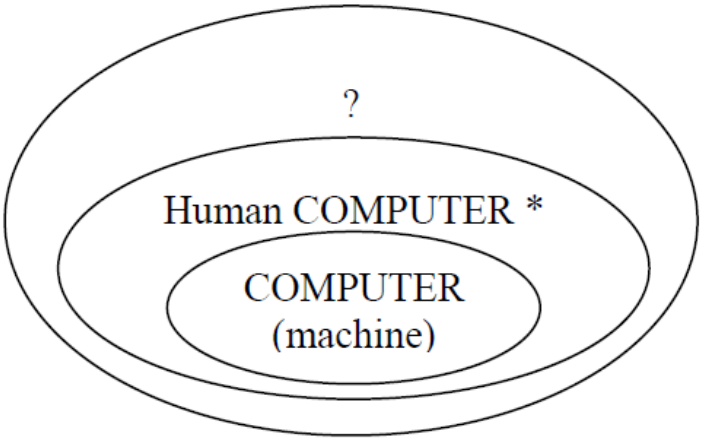

Figure 7: *Related concepts in AT*

Here, the concept-relatedness is predicted by the very nature of the theory itself and follows from it automatically. As it has already been mentioned, "in language category membership [is] shifting thanks to the phenomenon of marking, which allows an entity to shift its category membership without changing its lexical label, but simply by changing the level of abstraction […]" (Hofstadter & Sander, 2013, p. 93).

To sum up, in establishing concept-relatedness between lexicalized and ad hoc concepts, Relevance Theory faces problems if denotational relatedness is not determinable or if logical entries are not available. No such problems arise in Analogy Theory, when it comes to establishing concept relatedness. And so AT helps explain concept-relatedness in RT. On the other hand, RT provides constraints on the analogy-making process.

Conclusions

The aim of what has been presented here has been to justify two claims. The first one is that the analogy-theoretic process of analogy-making, if incorporated into Relevance Theory, would help explain concept-relatedness in RT. The second claim is that relevance-theoretic comprehension procedure, if incorporated into Analogy Theory, would help explain what stops the analogy-making process in individual cases of utterance (stimuli) interpretation.

However, to accept these claims as valid, it would be necessary to examine the potential (in)compatibility of the two theories at the level of very fundamental assumptions and to analyze carefully the results of such incorporations for the theories. Until this is done, the two claims made above should rather be treated as, hopefully, interesting and intriguing possibilities.

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Verbal prefixation and realizations of antipassive alternations in Polish

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Abstract

Various works on transitivity suggest that aspectual notions may constitute semantic determinants of argument realization. Observations included in these works prompted theories implying that argument realization may be aspectually driven. Following this line of thought, this article presents the results of corpus-based studies on antipassive structure in the Polish language and makes an attempt at confirming the fact that aspectual notion may determine argument realization.

The article consists of three main sections. The first one focuses on notions of aspect and various aspectual propositions distinguished in the literature on the subject, regarding the Polish language in particular. The second section, illustrated with examples extracted from the National Corpus of Polish (NKJP) and the corpus of Wielki Słownik Języka Polskiego (KWSJP), gives an overview of Polish perfectivizing verbal prefixes, i.e. a *roz-*, *na-*, *o-*/*ob-* and *u*-prefix, and deals with the effect they may have on sentence structure and semantics. It also shows how the prefixed verbs combine with the marker *się*, which flags antipassive, i.e. is a recurring marker attested in antipassive constructions in the Polish language. In section three, an attempt is made at analyzing the interrelations between aspect and antipassive reading of a structure. As it seems that a perfective prefix used with a verb imposes certain requirements on the argument structure of the verb it combines with, we also offer a possible explanation to different aspectual requirements of verbs occurring in antipassive structures, assuming that projections coded in a verb may play a role here. [1]

Keywords: antipassive, aspect, Polish, prefixing, verb projections

Introduction

This article takes as a starting point a relatively contemporary definition of antipassive provided by Polinsky (2005, p. 438), which implies that in antipassives the patient-like object is either totally erased from the sentence structure or moved to an oblique position:

[1] Abbreviations: ACC – accusative, AP – antipassive, F – feminine, FUT – future, IMP – imperative, IMPERF – imperfective, IMPER – impersonal, INSTR – instrumental, LOC – locative, M – masculine, N – neuter, NEG – negation, NOM – nominative, OBL – oblique, PERF – perfective, PL – plural, PRES – present tense, PRN – pronoun, PST – past tense, QW – question word, SIĘ – the verbal marker in Polish, SG – singular.

> An antipassive construction is a derived detransitivized construction with a two-place predicate, related to a corresponding transitive construction whose predicate is the same lexical item. In the basic transitive construction, the patient like argument is realized as a direct object; in the antipassive construction, that argument is either suppressed (left implicit) or realized as an oblique complement. (Polinsky, 2005, p. 438)

As Polinsky (2017, pp. 311-314) argues in her more recent work, there is no single morphological diagnostic to test for antipassive. Still, it may be useful to point out several most noteworthy patterns that occur across languages, i.e. case-marking, where oblique often indicates the non-core status of the antipassive object; verbal affixation, e.g. the *-ngay-* affix in Dyirbal or the *ine-* prefix in Chukchi; a noun-verb agreement (typically accompanied by changes in case-marking and/or an addition of a verbal marker); and finally, word-order.

Although it seems that morphological or discourse effects alone may not suffice to identify an antipassive construction, the hierarchical demotion of the object, to a non-core or non-argument, plays a definitional role. In the situation when the object is downgraded or omitted, and that is the case in antipassives, it is natural for the agent to become the only salient participant of the event. As such, antipassive yields low-individuation interpretation of the object participant (indefinite, non-specific) and one of its recurrent properties includes imperfective interpretation (Polinsky, 2017, p. 310).

That leads us to the notion of aspect, a category which plays an important role in many areas of linguistic studies such as verb morphology, predicate syntax as well as semantics. Also various works on transitivity suggest that aspectual notions (including measure, delimiter, incremental theme, telicity and accomplishment, depending on the author) may constitute semantic determinants of argument realization[2]. Observations included in these works prompted theories implying that argument realization may be aspectually driven. Following this line of thought, this article presents the results of corpus-based studies on antipassive structure in the Polish language and makes an attempt at confirming the fact that aspectual notion may determine argument realization.

Numerous linguistic works in the field of transitivity point out that aspectual notions may constitute a determinant affecting the argument realization in a verbal structure.[3] Furthermore, observations based on the examination of the antipassive material culled from the National Corpus of Polish (henceforth, NKJP) and the corpus of Wielki Słownik Języka Polskiego (heneceforth, KWSJP) go along similar lines.

Corpus antipassive examples may be divided into the following main categories: absolutive antipassive (which may be split further into antipassive with aggressive verbs (1), absolutive antipassive with a default object type 1 (2), i.e. with an object highly lexicalized in the verb

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[2] For more on aspectual notions, see *inter alia* Hopper and Thompson (1980) (an early discussion of the role aspect plays in argument realization), Centineo (1986), Dowty (1991), Van Valin (1990), Zaenen (1993) (how telicity is implicated in the unaccussative diagnosis), Fellbaum (1987), Tenny (1987, 1994) (passive nominals), Tenny (1987, 1994) (middle formation) and Dowty (1991), Tenny (1987) and van Hout (1996) (argument alternations).

[3] See *inter alia* Wierzbicka (1967).

meaning and type 2 (3), i.e. with the object being highly dependent on the context) and last but not least antipassive with an object demoted to an oblique case (4)[4].

(1) Proszę Pani, a on się bije. (NKJP)
excuse me madam but he SIĘ fight3SG.PRES.IMPERF
'Excuse me, madam, he is fighting (other children).'

(2) Kury niosły się dwa razy dziennie. (NKJP)
henPL.F.NOM lay3PL.PST SIĘ two times daily.
'Hens laid eggs twice a day.'

(3) Studenci bronili się dwa razy. (NKJP)
studentPL.M.NOM defend3PL.PST SIĘ two times.
'Students defended [their thesis] twice.'

(4) Pytał się o drogę na poste restante. (NKJP)
ask3SG.PST SIĘ about waySG.F.ACC to poste restanteSG.N.ACC
'He asked the way to the poste restante.'

Analyzed corpus examples consistently limit the occurrence of absolutive antipassive with aggressive verbs to imperfective forms only, whereas the other types of antipassive structures are attested both in the imperfective and the perfective form. It seems that the there are certain factors at play which block the perfective aspect in absolutive antipassive with aggressive verbs and allow it in other types of antipassive structures. In this article we suggest that a solution to this antipassive aspectual puzzle may be linked to various projections coded in a verb. This kind of reasoning was presented in Ramchand (2008) who claimed that verbs may code three types of projections, i.e. the causing projection, the process projection and the result projection. Some verbs host all three projections, whereas others may lack a specific projection.

In our opinion aggressive verbs possess only two of the aforementioned projections, i.e. the causing (*initP*) and the process projection (*procP*), lacking the result projection (*resP*), which limits the occurrence of absolutive antipassive with these verbs to the imperfective form only. Other types of antipassive structures are based on verbs which consist of all three projections, what allows us to use them in both the imperfective and perfective form.

1. Notions of aspect

Tense and aspect functionally interweave, although they are distinct grammatical categories. Being a deictic category, tense is used to signal temporal relations between events; aspect, on the other hand, is a non-deictic category which flags difference in the perspective the speaker takes to describe events. Depending on aspectual features of a verb (phrase), the point of view of the speaker changes (Grzegorczykowa et al., 1999, p. 154).

Aspect is a category which plays an important role in many areas of linguistic studies such as verb morphology, predicate syntax as well as semantics. Although it constitutes such a major

[4] See Mroczyńska (2015) for a more detailed overview of types of antipassive structures attested in Polish.

issue and it has been researched by several generations of specialists in the field, it still stirs many controversies and is regarded as a highly complicated and challenging issue both in Polish itself and in Slavonic languages in general (Szymanek, 2010, p. 128n).

Matthews (2005) provides a relatively vague, yet universal definition of aspect, claiming that aspect refers to

> general term, originally of specialists in Slavic languages, for verbal categories that distinguish the status of events, etc. in relation to specific periods of time, as opposed to their simple location in the present, past or future (Matthews, 2005, p. 27).

Depending on a language, various aspectual propositions are distinguished e.g. progressive, durative, habitual, iterative, punctual, perfective or imperfective. For Polish, the perfective – imperfective binary opposition is of key importance as contrasts and changes relating to perfectivity define the parameters of aspect in this language (Szymanek, 2010, p. 129).

As Svenonious argues "perfective verbs express an event as a bounded whole, while the imperfective may express an event which is ongoing or otherwise not distinctly bounded" (Svenonious, 2004, p. 179). This opposition may also be presented as completed versus incompleted (ongoing), for perfective and imperfective respectively. Another view is devised in Kuryłowicz (1977) where the contrast between an imperfective and perfective aspect is regarded as the opposition of an action seen in the course of happening and an action viewed as completed.

Here a question arises, i.e. what the scope of the perfectivity phenomena is, or in other words, which classes of verbs are subject to perfectivization and which verbs may participate in aspectual pairs. It seems that only telic verbs, i.e. those which imply a clear-cut end point and are inherently terminative, may be marked for aspect alone e.g. *budować* and *z-budować* 'to build' (Szymanek, 2010, p. 130).[5] It seems that aspect is a feature already gramaticalized in Polish, which means that in the vast majority of cases the verb that occurs in a syntactic structure is either perfective or imperfective and we have appropriate formal tests at hand which can help us diagnose the aspect of a verb in a given proposition (Willim, 2006, p. 178).

What is more, it turns out that pure aspectual pairs, i.e. pairs where the two forms of a verb differ in a [+/- perfectivity] feature only and the lexical meaning is retained, are relatively restricted. In turn, the cases when perfectivity co-exists with some additional features changing the semantics of the verbs are much more widespread. Thus, if we take into consideration not only a pure aspectual change but also Aktionsart, i.e. the lexical aspect, all verbs in Polish will be overtly marked for perfective/imperfective aspect e.g. *pisać – na-pisać* 'to write, imperf./perf." (Szymanek, 2010, p. 132).

[5] Cf. Willim (2006, p. 179), Grzegorczykowa et al. (1999, p. 161ff) and more recently Bloch-Trojnar (2015) for discussion concerning the correspondence between telicity and perfectivity in Polish.

2. Perfectivizing verbal prefixes in Polish

In general, Slavonic verbal prefixes change the aspect of the verb to which they are attached. As may be expected, with highly productive prefixation, Polish is not an exception and the operation leads to changing the aspect of the verb from imperfective to the perfective[6]. When the only effect of adding a prefix is the change of aspect, the prefix is purely perfectivizing.

Polish examples of pure aspectual pairs are given in (5) and (6) for transitive verbs and in (7) for an intransitive verb.

(5) a. Czytałam (książkę).
read1SG.PST.IMPERF bookSG.F.ACC
'I was reading a book.'
b. Przeczytałam książkę.
PRZE-read1SG.PST.PERF bookSG.F.ACC
'I read a book.'

(6) a. Pisałam (adres).
write1SG.PST.IMPERF addressSG.M.ACC
'I was writing the address.'
b. Napisałam adres.
NA-write1SG.PST.PERF addressSG.M.ACC
'I wrote the address.'

(7) a. Kwiaty kwitły.
flowerPL.M.NOM bloom3PL.PST.IMPERF
'Flowers were blooming.'
b. Kwiaty zakwitły.
flowerPL.M.NOM ZA-bloom3PL.PST.PERF
'Flowers started to bloom.'

It is worth noting that in the case of transitive verbs the direct object may be left out when the verb is imperfective (as indicated by the round brackets () around a direct object in (5a) and (6a)), and it must be kept when the verb is perfective as in (5b) and (6b). It seems that a similar relation may be observed for aggressive verbs which may occur in antipassive, where the DO is left out and replaced by the marker *się*, only when the verbs has a [- perfective] feature.

There is a major complication concerning aspect, which is the relationship between grammatical aspect (the purely perfectivizing/imperfectivizing role of prefixing) and *Aktionsart*, i.e. lexical aspect.[7] As Gawrońska argues *Actionsart* in Polish may be regarded as "a semantic category which characterizes the internal spatiotemporal structure of an event and/or the relations between the event itself, its cause and/or its result" (Gawrońska, 2001, p. 3). In the examples above, which illustrate purely perfectivizing results of prefixing the verb, *read* takes the prefix PRZE-, *write* NA- and *bloom* ZA-. Instances where adding a prefix changes also the

[6] See Medová (2009, p. 31) for discussion of the phenomenon in Czech.

[7] See Młynarczyk (2004) for an overview of the concept of aspect and *Aktionsart* in Slavonic languages.

meaning of the verb are presented below and the intended reading is indicated in glosses. For convenience (6b) is repeated as (8a) below, and (7b) as (9a) below.

(8) a. Napisałam adres.
NA-write1SG.PST.PERFaddressSG.M.ACC
'I wrote the address.'
b. Przepisałam adres.
PRZE-write1SG.PST.PERF addressSG.M.ACC
'I rewrote the address.'
c. Zapisałam adres.
ZA-write1SG.PST.PERF addressSG.M.ACC
'I wrote down the address.'
d. Dopisałam adres.
DO-write1SG.PST.PERF addressSG.M.ACC
'I (additionally) wrote the address.'

(9) a. Kwiaty zakwitły.
flowerPL.M.NOM ZA-bloom3PL.PST.PERF
'Flowers started to bloom.'
b. Kwiaty rozkwitły.
flowerPL.M.NOM ROZ-bloom3PL.PST.PERF
'Flowers bloomed in full.'
c. Kwiaty przekwitły.
flowerPL.M.NOM PRZE-bloom3PL.PST.PERF
'Flowers finished blooming.'

As Medová (2009, p. 32) argues for Czech, certain prefixes or verb combinations both for (originally) transitive and intransitive verbs require that clitic SE is used obligatorily. It seems that the same, i.e. the compulsory application of the marker *się*, may be necessary in Polish. This brings us to an interesting issue, i.e. how various perfectivizing prefixes combine with the marker *się* in Polish and what consequences it has regarding the process of antipassivization.

2.1. Prefix ROZ-

As Szymanek argues the prefix *roz-* is locative/directional and is frequently encountered in predicates which denote 'the parting and dispersion, in different directions, of people or things, in relation to some implicit central location' (Szymanek, 2010, p. 166).

Certain Polish load verbs such as *pakować*, s*kładać* may be prefixed with *roz-*. As in (10), the verb *rozłożyć* may be used with a direct object in its canonical accusative case as in (10b) or it may be followed by the marker *się* as in (10c) where the direct object shifts to an oblique case i.e. prepositional locative case. (10c) is taken from NKJP, (10a), (10b) and (10d) are provided by the author to contrast the use of a base verb, a prefixed verb both in its perfective and imperfective aspect and a prefixed verb followed by the marker *się*, respectively. As it may be seen from (10c) and (10d) below, prefix *roz-* is productive both for the perfective and

imperfective form of the verb, i.e. *złożyć – rozłożyć* and *składać – rozkładać*, respectively. In both cases the occurrence of *się* imposes the shift of direct object case as described above.

(10) a. Składał swój warsztat jubilersk w moim pokoju.
assemble3SG.PST.IMPERF his workshopSG.M.INSTR jewellery in my roomSG.M.LOC
'He was assembling his jewellery workshop in my room.'

b. Rozłożył swój warsztat jubilerski w moim pokoju.
ROZ-assemble3SG.PST.PERF his workshopSG.M.ACC jewellery in my roomSG.M.LOC
'He finished assembling his jewellery workshop in my room.'

c. Rozłożył się ze swoim warsztatem jubilerskim
ROZ-put3SG.PST.PERF SIĘ with his workshopSG.M.INSTR jewellery
w moim pokoju. (NKJP)
in my roomSG.M.LOC
'He finished assembling his jewellery workshop in my room.'

d. Rozkładał się ze swoim warsztatem jubilerskim
ROZ-put3SG.PST.PERF SIĘ with his workshopSG.M.INSTR jewellery
w moim pokoju.
in my roomSG.M.LOC
'He was assembling his jewellery workshop (and taking lots of space) in my room.'

Corpus-based examples including the verb *rozkładać* where a direct object is left out may also be attested as in (11). The presence of SIĘ seems to be obligatory in such contexts.

(11) Można bez obawy zabrać grilla
canIMPERS without fearSG.F.GEN takeINF barbecueSG.M.ACC
i kiełbaski i rozłożyć się w tym parku. (NKJP)
and sausagePL.F.ACC and ROZ-put SIĘ in this parkSG.M.LOC

The ROZ- prefixed verbs, which require an obligatory SIĘ and an object in an oblique case as in (10), seem to fall into the category of antipassive with an oblique object. Whereas (11) with a missing object shows a clear resemblance to antipassive with a default object type 2.

2.2. Prefix NA-

This prefix may host several semantic functions and the cumulative function is the one of interest in this work. In this sense the prefix often denotes "high intensity and/or considerable effort put into the activity itself, which may be deemed excessive' (Szymanek, 2010, p. 150). The occurrence of the prefix in the latter use usually requires the presence of *się* and the meaning of the proposition is 'to one heart's content" e.g. *napić się* (to drink to one's heart content). Thus, adding the prefix *na-* not only does result in the change of aspect but it also leads to the additional change of the verb meaning.

Transitive verbs that take part in such a derivation include:

(12)

Imperfective Verb	*Perfective Verb*
robić	narobić się
czytać	naczytać się
słuchać	nasłuchać się
patrzeć	napatrzeć się
szukać	naszukać się
palić	napalić się
śpiewać	naśpiewać się[8]
jeść	najeść się
pić	napić się
gotować	nagotować się
prać	naprać się
rąbać	narąbać się[9]

Examples (13a)-(23a) culled from the NKJP contain prefixed transitive verb forms and are usually contrasted with author's own examples including respective unprefixed forms of the verbs listed in (12). As it may be noticed based on the examples presented below, prefixation may lead to the change of the case of an object as in (14), or it may cause no change of the case of the object when in the imperfective sentence the object is originally oblique as in (15) and (17). Moreover, in some instances, as in (13), the object may be dropped both in the imperfective and in the perfective sentence; however, the missing object may probably be recreated based on the context for a given utterance.

(13) a. Naczytał się, nasłuchał, napatrzył. (NKJP)
NA-read3SG.PST.PERF SIĘ NA-listen3SG.PST.PERF NA-look3SG.PST.PERF
'He read, listened to and looked at (it) a lot.'

b. Czytał, słuchał, patrzył.
read3SG.PST.IMPERF listen3SG.PST.IMPERF look3SG.PST.IMPERF
'He was reading, listening to and looking at (it).'

(14) a. Mały Jasio naczytał się podręczników historycznych. (NKJP)
little JohnSG.M.NOM NA-read3SG.PST.PERF SIĘ textbookPL.M.GEN history
'Little John read a lot of history textbooks.'

b. Mały Jasio czytał podręczniki historyczne.
little JohnSG.M.NOM read3SG.PST.IMPERF textbookPL.M.ACC history
'Little John read a lot of history textbooks.'

(15) a. Naczytali się o rozmaitych oszustwach i przekrętach. (NKJP)
NA-read3SG.PST.PERF SIĘ about various fraudPL.N.LOC and scamPL.M.LOC
'They read a lot about various frauds and scams.'

b. Czytali o rozmaitych oszustwach i przekrętach.
read3SG.PST.PERF about various fraudPL.N.LOC and scamPL.M.LOC
'They were reading about various frauds and scams.'

8 Szymanek, 2010, p. 150.

9 Szymanek, 2010, p. 150.

(16) a. Inspektor nasłuchał się opowieści
inspectorSG.M.NOM NA-listen3SG.PST.PERF SIĘ storyPL.F.GEN
o trudnym dzieciństwie. (NKJP)
about difficult childhoodSG.N.LOC
'The inspector listen to a lot of stories about difficult childhood.'
b. Inspektor słuchał opowieści
inspectorSG.M.NOM listen3SG.PST.PERF storyPL.F.GEN
o trudnym dzieciństwie.
about difficult childhoodSG.N.LOC
'The inspector was listening to stories about difficult childhood.'

(17) a. Ludzie nasłuchali się o podatku VAT. (NKJP)
personPL.M.NOM NA-listen3PL.PST.PERF SIĘ about taxSG.M.LOC VAT
'People listened (to a lot of information) about the VAT.'
b. Ludzie słuchali o podatku VAT.
personPL.N.NOM hear3PL.PST.IMPERF about taxSG.M.LOC VAT
'People were listening (to information)about the VAT.'

(18) a. Napatrzył się na ludzkie dramaty. (NKJP)
NA-look3SG.PST. PERF SIĘ on human tragedyPL.F.ACC
'He looked a lot at human tragedies.'
b. Patrzył na ludzkie dramaty.
look3SG.PST.IMPERF on human tragedyPL.F.ACC.
'He was looking at human tragedies.'

(19) a. Czy nie narobiła się dość w życiu? (NKJP)
QW NEG NA-work3SG.F.PST.PERF SIĘ enough in lifeSG.N.LOC
'Didn't she work hard enough on her life?'
b. Czy nie robiła dość w życiu?
QW NEG work3SG.F.PST.IMPERF enough in lifeSG.N.LOC
'Wasn't she working enough in her life?'

(20) a. Narobił się w sadzie. (NKJP)
NA-work3SG.M.PST.PERF SIĘ in orchardSG.M.LOC
'He worked a lot in the orchard.'
b. Robił (różne rzeczy) w sadzie.
work3SG.M.PST.IMPERF (various things) in orchardSG.M.LOC
'He was working/worked in the orchard.'
c. Narobił się, naszukał, w końcu dwie znalazł,
NA-work3SG.PST.PERF SIĘ NA-seek3SG.PST.PERF and finally two find3SG.PST.PERF
najpierw się z jedną ożenił, potem z drugą. (NKJP)
first SIĘ with oneSG.F.ACC marry3SG.PST.PERF then with anotherSG.F.ACC
'He worked a lot, seek a lot and finally he found two; first he married one and then another.'

(21) a. Napalił się głupol papierosów
NA-smoke3SG.PST.PERF SIĘ stupid cigarettePL.M.ACC
a później mówi, że on bardzo chory […]. (NKJP)
and then say3SG.PRES that he very ill
'He, stupid, has smoked a lot of cigarettes, and then he says he's very ill.'

b. Palił papierosy.
smoke3SG.PST.IMPERFcigarettePL.M.ACC
'He was smoking cigarettes.'

(22) a. […] najadł się surowej kapusty. (KWSJP)
[…] NA-eat3SG.PST.PERF SIĘ raw cabbageSG.F.GEN
'He ate too much/ a lot of raw cabbage.'
b. Najadł się pan? Dobre było, co?
NA-eat3SG.PST.PERF SIĘ sir good be3SG.PST huh
'Have you eaten (enough)? It was good, huh?'
c. Jadł surową kapustę.
eat3SG.PST.IMPERF raw cabbageSG.F.ACC
'He was eating raw cabbage.'

(23) a. Gdy usiedli, zapytał, czy napiją się kawy. (KWSJP)
when sit3PL.PST ask3SG.PST if NA-drink 3PL.FUT SIĘ coffeeSG.F.GEN
'When they sat down, he asked if they would have some coffee.'
b. A napić się możemy. (NKJP)
and NA-drink INF SIĘ can1PL.PRES
'And we can have a drink.'
c. Zwykle piją kawę rano.
usually drink3PL.PRES.IMPERF coffeeSG.F.ACC morning
'They usually drink coffee in the morning.'

The examples presented above lead us to another interesting problem relating to the prefix *na-*, i.e. its interrelation with quantificational marking on the direct object. It seems that if the prefix is used with the verbs of consumption such as *jeść* 'eat' or *pić* 'drink' (when it is interpreted as quantificational, and not accumulative in nature), it does not impose the size of the quantity consumed. However, it puts certain restrictions on the direct object, i.e. it requires the genitive marked expression and it is limited solely to bare mass or plural nouns; countable singular nouns are not found in the object position. However, the count singular noun in a default accusative case is possible when the object argument is expressed as an explicitly measured amount consumed as in e.g. *napić się kieliszek koniaku* 'drink a glass of cognac' or *zjeść kawałek ciasta* 'eat a piece of cake'.

A similar pattern, i.e. prefixing the verb with NA-, yet not attested in NKJP or KWSJP, seems to apply to verbs relating to housework such as *gotować* 'to cook', *prać* 'to wash', where the *na-* prefixed verb means 'to spend much time doing the cooking or washing' and it must be followed by the marker *się* (the prefixed verb forms with the marker *się* are given as separate entries in the online version of Słownik Języka Polskiego PWN[10]). The illustrative propositions given below are based on author's own linguistic competence.

(24) a. Gotowała zupę wczoraj.
cook3SG.PST.IMPERF soupSG.F.ACC yesterday
'She was cooking soup yesterday.'

[10] http://sjp.pl/

b. Nagotowała się (zupy) wczoraj.
NA-cook3SG. PST.PERF SIĘ (soup)SG.F.GEN yesterday
'She spent a lot of time cooking (soup) yesterday.'

(25) a. Prała (koszule) wczoraj.
wash3SG.PST.IMPERF (shirts)PL.F.ACC yesterday
'She was doing the washing yesterday.'
b. Naprała się (koszul) wczoraj.
NA-wash3SG.PST.PERF SIĘ (shirt)PL.F.GEN yesterday
'She washed a lot of shirts yesterday.'

Szymanek also lists verbs *rąbać – narąbać się* and *śpiewać – naśpiewać się* as examples of derivation showing 'doing something to one's heart content' (Szymanek, 2010, p. 150). NKJP and KWSJP do not provide any instances of propositions with these perfective verbs, and simple transitive examples below are based on author's own linguistic competence.

(26) a. Rąbał drewno wczoraj rano.
chop3SG.PST.IMPERF woodSG.N.ACC yesterday morning
'He was chopping wood yesterday morning.'
b. Narąbał się (drewna) wczoraj rano.
chop3SG.PST.PERF SIĘ woodSG.N.GEN yesterday morning
'He chopped a lot of wood yesterday morning (and probably he was tired).'

The addition of the prefix *na-* to the verb *rąbać* requires the presence of *się* and the direct object may either be omitted or its case shifts to oblique (a genitive case). The fact that the antipassive reading is highly context-dependent is perfectly illustrated by the verb *narąbać się*. The omission of DO is possible providing that it is clear from the context that the activity refers to chopping (wood), as *narąbać się* is also an intransitive verb which carries a different meaning, i.e. 'to drink too much'.

Indicating an action 'done to one's heart content' with supplementing the *na-* prefix may also be illustrated with example (27) below based on the verb *śpiewać*.

(27) a. Śpiewał piosenki.
sing3SG.PST.IMPERF songPL.N.ACC
'He was singing songs.'
b. Naśpiewał się (piosenek).
NA-sing3SG.PST.PERF SIĘ songPL.F.GEN
'He sang a lot of songs.'

As for *narąbać się*, in the case of *naśpiewać się*, the verb may either be followed by DO in oblique or DO is dropped altogether and as such they will fall into the category of antipassive with an oblique object or an antipassive with a default object type 2 respectively. Other verbs that may be prefixed with NA- seem to behave in a similar manner.

2.3. Prefix O-/OB-

Among other uses, this prefix conveys the idea that a particular activity is of high intensity, has abundant results or is excessive. This meaning may be particularly frequently noticed in colloquial speech where verbs such as *obkupić się* 'to buy a lot of things', *obkuć się* 'to swot a lot', *objeść się* 'to stuff oneself' or *obeżreć się* 'to gorge onself' are used (Szymanek, 2010, p. 153).

In her discussion concerning verbs that may undergo antipassivization, Janic argues that excessive consumption verbs such as *objeść się* 'to stuff oneself' or *opić się* 'drink too much' constitute a problematic case as the use of the notion of antipassive here is justified only to a certain degree (Janic, 2013, p. 169). This is due to the fact that the derivations of the type *jeść objeśc się* and *pić – opić się* meet the antipassive requirement so as not to change the semantic roles of the arguments, but they clearly modify the semantic properties of arguments.

(28) a. Dziecko piło wodę.[11]
childSG.NEUT.NOM drink3SG.PST.IMPERF waterSG.F.ACC
'The child was drinking water.'
b. Dziecko opiło się wodą.
childSG.N.NOM drink3SG.PST.PERF SIĘ waterSG.F.INSTR
'The child has drunk too much water/a lot of water.'

In (28b) where the verb has the *o-* prefix indicating an excessive action and also a perfective aspect, the agent is also affected by the effects of the action; the child had a lot/too much to drink and either feels unwell or is not thirsty. Janic (2013, pp. 169-170) treats this type of verbs as a particular case of employing the antipassive structure since they do not fit into the definition of the prototypical antipassive where the action is unidirectional and is directed to the patient, not affecting the agent. Here the action is also directed to the agent, which may suggest a reflexive reading.

Although Janic mentions only the verb *pić – opić się*, *jeść – objeść się* (eat – stuff oneself) presents a similar case.

(29) a. Dziecko jadło ciasto.
childSG.N.NOM eat3SG.PST.IMPERF cake SG.F.ACC
'The child was eating cake.'
b. Dziecko objadło się ciastem.
childSG.N.NOM eat3SG.PST.PERF SIĘ cakeSG.F.INSTR
'The child has eaten too much cake/a lot of cake.'

NKJP provides further similar examples where the use of prefix *o-* and the marker *się* is attested.

(30) a. Za 10 zł można się obkupić w warzywa. (NKJP)
for 10 zloty canIMPER SIĘ OB-buyINF in vegetablePL.ACC
'For 10 zloty you can buy lots of vegetables.'

[11] (98) after Janic, English translation$_{[KM]}$.

b. Nie lubię obkupować się w supermarkecie.
NEG like1SG.PRES OB-buy SIĘ in supermarketSG.M.LOC

(31) a. Trzeba się więc będzie obkuć,
have toIMPER SIĘ so be3SG.FUT swotINF
bo wczorajsze święto "kotów"
because yesterday festivalSG.N.NOM freshmanPL.M.GEN
kończyło okres ochrony. (NKJP)
end3SG.PST periodSG.M.ACC protectionSG.F.GEN
'You'll have to swot because yesterday's freshman's festival marked the end of the protection period.'
b. Na studiach musieliśmy obkuwać się przed każdym egzaminem.
on studyPL.LOC must1PL.PST OB-swot SIĘ before every examSG.M.INSTR

(32) a. Jadę obeżreć się szwajcarską czekoladą,
go1SG.PRES OB-gorgeINF SIĘ Swiss chocolateSG.F.INSTR
tatarską chałwą i tureckimi bakaliami. (NKJP)
Tatar halvaSG.F.INSTR and Turkish dried fruitPL.INSTR
'I'm going (there) to stuff myself with Swiss chocolate, Tatar halva and Turkish dried fruit.'
b. Nie można się obżerać
NEG canIMPER SIĘ OB-stuffINF.IMPERF
i pić trzeba z umiarem. (NKJP)
and drinkINF have toIMP with moderationSG.M.INSTR
'You mustn't stuff yourself and you should drink moderately.'

Summing up, the perfective prefix OB seems to consistently indicate an excessive action and the OB- prefixed verbs listed in Szymanek (2010, p. 153) may have corresponding imperfective forms, e.g. *obeżreć się – obżerac się*, *obkupić się – obkupować się*, *obkuć się – obkuwać się*, *objeść się – objadać się*. Both the perfective and imperfective verbs seem to behave in the same manner as far as their direct object is concerned. Moreover, in both aspectual forms the presence of *się* is required and the direct object itself is either left out or shifted to oblique. The compulsory presence of *się* and clear backgrounding of the object, either by omitting it completely or by shifting it to an oblique case, are features of antipassive structures. Thus, the examples containing NA-prefixed verbs presented above seem to correspond with antipassive structures with default object type 2 (the DO may be recreated based on the context) and antipassives with an oblique object, respectively.

2.4. Prefix U-

As Szymanek claims the prefix *u-* may be found "in only a few consistent semantic patterns of lexical perfective verbs" (Szymanek, 2010, p. 169). One of the minor classes Szymanek distinguishes when analyzing verbs with the prefix *u-* conveys the meaning 'to be able to, to manage' and consequently, the verbs connote difficulty performing an action (Szymanek, 2010, p. 170). This class includes several verbs that may be analyzed in terms of antipassivization e.g. *uchwycić* 'to grip' or *utrzymać* 'to hold'.

(33) Chłopak ledwo zdołał uchwycić się liny. (NKJP)
boySG.M.NOM hardy manage3SG.PST U-gripINF SIĘ ropeSG.F.GEN
'The boy hardly managed to grip the line.'

(34) Dwoma palcami uchwyciła pręt i szarpnęła mocno. (NKJP)
two fingerPL.M.INSTR U-grip3SG.PST rode SG.M.ACC and pull3SG.PST hard
'Using two fingers, she gripped the rode and pulled hard.'

The verb *uchwycić* can be used with an accusative object or, when used with the marker *się,* it requires the change of object case to the genitive. As Janic (2013, pp. 164-165) claims, this shift does not affect the semantic roles of the arguments as opposed to the verb *chwycić* where, as she argues, there is a change of semantic roles. The shift of the case of a direct object and the presence of *się* also changes the focus of attention, moving it towards the Agent and its activity and away from the Patient, which is a characteristic feature of antipassive structures. The fact that it is the Agent's ability which is in the foreground is particularly clearly seen in (33) above where the idea is emphasized lexically by the verb *zdołał* 'to manage to'.

3. Aspect and the antipassive reading of a structure

It seems that the four types of antipassive distinguished above i.e. absolutive antipassive, absolutive antipassive with default object type 1, absolutive antipassive with default object type 2 and antipassive with an oblique object, may be analyzed in terms of antipassive derivations. The NKJP examples illustrating different types of derivations share the same features that are attributed to antipassive constructions. They are syntactically intransitive as the realization of the patient is blocked by the marker *się*. However, the patient is still present at the semantic plane (it is either unspecified or generic or it may be recreated based on contextual information). Moreover, the two propositions, the transitive one and the intransitive one, are synonymous at the denotational level. The number of implied arguments (participants) remains unchanged and therefore, the action remains semantically transitive.

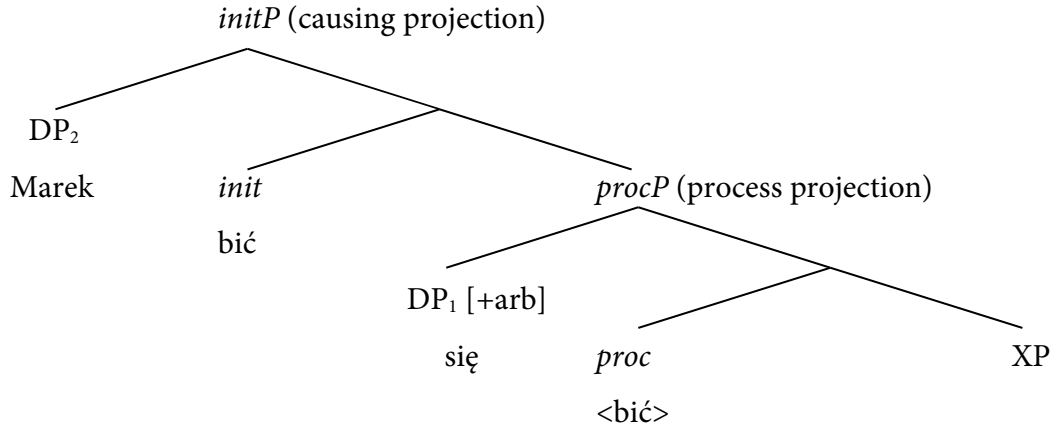
As for perfectivity, the NKJP example (1) provided above suggest that aggressive verbs yield to antipassive interpretation as long as they occur in an imperfective form, whereas perfective aspect blocks the possibility of antipassive interpretation. In the case of antipassive with default object type 1 and type 2, a perfective prefix used with the verb imposes certain requirements on the argument structure of the verb it combines with. Firstly, excessive prefixes such as NA- or O-/OB- appear obligatorily with the marker *się*. Secondly, when the verb has a direct object of its own, the direct object is either omitted (as shown in (24b) *nagotować się* and (25b) *naprać się*) or it becomes oblique (as shown in (29b) in the case of *objeść się*). In turn, when the direct object is (originally) oblique adding *się* seems to be only stylistic in nature and it does not lead to any changes in the argument structure (as shown in (15) or (17)).

We suggest that aspect related to distribution of antipassive reading of a structure is linked to the projections coded in a verb[12]. Aggressive verbs such as *kopać* ('kick') or *bić* ('fight') code

[12] See Ramchand (2008) for a detailed analysis of verbal projections.

only the causing and process projections but do not host a result projection as in (35) illustrating the sample sentence (36) below.

(35)

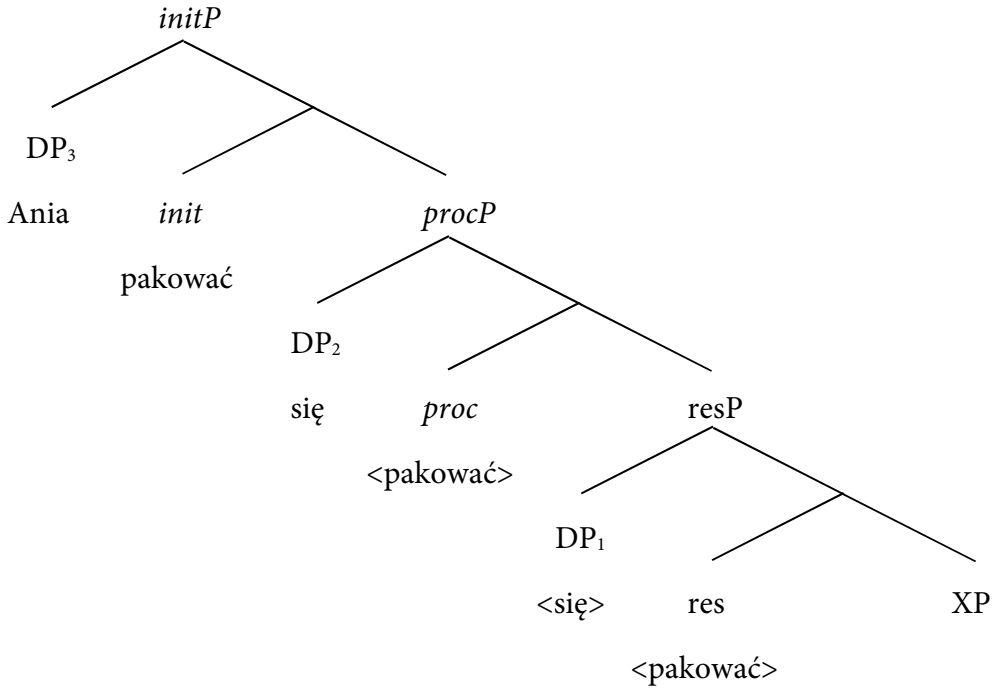


(36) Marek się bije.
Mark SIĘ fight3SG.PRES.IMPERF
'Mark fights with other children.'

We assumed that an aggressive verb such as *bić* is specified as [*init, proc*], i.e. it has a lexical encyclopedic content that identifies a process and conditions of initiation (causing). The event building is a recursive process so starting from the bottom of the syntactic representation in (35), the verb *bić* will merge with a DP in its specifier and project its *proc* label. Moreover, as *bić* has an *init* feature it can now be remerged with *procP*, which in turn projects the *init* label. We get a new syntactic object which then merges with the specifier to project *initP*. In our structure DP_2 corresponds to the initiator (*Marek*) and DP_1 to an undergoer (the arbitrary object, other people in general, here expressed in form of *się*), XP corresponds to the complement of the process head which in our example in not overtly specified but may be filled in by a contextual variable.

The other verbs participating in antipassive alternations such as antipassive with default object type 1 or type 2 do not refer to any specific characteristics of agents but rather to certain processes they perform. When analyzing verbs such as *pakować* 'pack', which may occur in imperfective and perfective antipassive, we will argue that the lexical content of the verb in the meaning as used in the antipassive construction is [*init*, *proc*, *res*]. For this kind of verbs the DP object is both in the function of the *undergoer* and the *resultee*, and the verb comprises three causationally related subevents. This is represented in (37) below illustrating the sample sentence (38).

(37)



(38) a. Ania pakuje się (do walizki).
Ann pack3SG.PRES.IMPERF SIĘ (into suitcase)SG.F.GEN
'Ann is packing her things (into a suitcase).'
b. Ania spakowała się (do walizki).
Ann pack3SG.PST.PERF SIĘ (into suitcase)SG.F.GEN
'Ann packed her things (into a suitcase).'

According to Ramchand (2008), the diagnostic for initiation-process-result verbs is the fact that they can take simple locational state prepositions as the rhematic complement of the result projection to describe the final result. Examples (38a) and (38b) above may be supplemented with such a locational state preposition.

In the case of initiation-process-result verbs such as *pakować* 'pack' the DP object undergoes the verbal process which leads to the final state or location as described by the prepositional phrase in round brackets in (38); the things Ann is packing end up in a suitcase, for example. According to Ramchand (2008, p. 83), the prepositional phrase denoting a static location should appear in the complement of the stative result projection. The result head seems to be able to appear both in the imperfective and the perfective form depending on whether the process is completed or not.

The prefixed verbs analyzed in section 2 of the article bear resemblance to the verb *pakować* 'pack' and also seem to code all three projections. Therefore, they may appear in the antipassive both in their imperfective and perfective form.

Conclusion

In conclusion, it seems that Polish displays a certain kind of interaction between aspect marking on the verb and the antipassive marker *się*. Aggressive verbs yield antipassive interpretation

only when used in the imperfective form. This is probably due to the way projections are coded on the verb, i.e. in the case of aggressive verbs only causing and process projections are coded whereas the result is not, which blocks the perfective realization of antipassivized forms. As for the absolutive antipassive with default object type 1 and type 2, both the imperfective and perfective forms are allowed. However, a perfective prefix used with the verb imposes certain requirements on the argument structure of the verb it combines with.

The analysis of prefixes such as *na-* and *o-/ob-* prompted some interesting observations regarding the interrelation between the verb affixation and the process of antipassivization. Firstly, excessive prefixes such as *na-* or *o-/ob-* appear obligatorily with the marker *się*. Secondly, when the verb has a direct object of its own, the direct object is either omitted (as shown in (24b) with the verb *nagotować się* and (25b) with the verb *naprać się*) or it becomes oblique (as shown in (29b) with the verb *objeść się*).[13] In turn, when the direct object is (originally) oblique adding *się* seems to be only stylistic in nature and it does not lead to any changes in the argument structure (as shown in (15) with *naczytać się* or (17) with *nasłuchać się*). The compulsory presence of the marker *się* as well as foreground of the Agent with a simultaneous backgrounding of the object are inherent features of antipassive structures. Thus, the examples with a missing direct object, e.g. (24b) or (25b), fall into the category of antipassive with default object type 2, whereas those where the direct object is shifted to an oblique, e.g. (29b), correspond to the antipassive with an oblique object.

Taking the above remarks into consideration, we may assume that the distribution of antipassive in Polish depends on the lexical meaning of the verb, and the projections which are coded in it, as well as some discourse related factors which may help us to interpret correctly the missing object arguments.

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[13] As for o*bjeść się* or opić *się* it is also possible to omit the direct object completely as in *Objadłam się, teraz boli mnie brzuch.* 'I've stuffed myself and now I have a stomach ache.'

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LingBaW

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Roman Catholicism and Eastern Orthodoxy: Can linguistic and semiotic analysis clarify their contrasts?

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Abstract

The western and eastern branches of Christianity, broadly speaking Roman Catholicism (RC) and Eastern Orthodoxy (EO), have been formally separate for almost a millennium. Yet they share the fundamental dogmas laid down by the first ecumenical councils. History and politics are entwined in the disputes since the Great Schism of 1054, but even earlier there was controversy over basic dogmatic questions and other doctrinal matters. Some, like using leavened or unleavened bread for Consecration, are now considered "matters of custom," not requiring argument. Other matters are said to block reunification. One of these is Purgatory, for which EO does not even have a term, making a direct comparison difficult. We begin our analysis with the RC teachings on Purgatory, its locus, characteristics, and functions, and provide a simple relational network that shows Purgatory in relation to the afterlife, in particular to Heaven and Hell. With EO we begin with the teachings about life after death and provide a first approximation of Heaven and Hell and their relation to Paradise and Hades, both in characteristics and functions. Again, a simple relational network is enlightening. A surface comparison between the two networks distinguishes between those beliefs about the afterlife that are shared between RC and EO and those parts which house differences. It is these differences that must be subject to careful semiotic analysis to discover whether they are etic and possibly serious but not grounds for mutual excommunication or emic and a true barrier to reunification. We leave the possibly lengthy semiotic analysis for a subsequent study.

Keywords: Heaven, Hell, Purgatory, Paradise, Hades, emic/etic

The conference theme, "Controversy in Linguistics and Language Studies," demands a topic that is controversial and at least semi-linguistic. The conference venue at John Paul II Catholic University of Lublin brings to mind Pope John Paul's sincere desire for East-West reunification of the Church. But there is also a more personal reason that guided our direction. Our partnership has persisted over several years, many articles, 1.5 books and continues here, although our perspectives may differ: WJS is Roman Catholic (hereafter, RC) and ST is Eastern

Orthodox (hereafter, EO). All these things distilled down to our title. In spite of its too-ambitious scope, we were determined to make a start, at least to define a part of the problem.

As a Slavist, WJS has known many Orthodox Christians well: teachers and colleagues, Russians, Ukrainians, Bulgarians, and a Serb or two. When WJS discussed with them what was blocking reunification, every one of them mentioned the papacy and the more sophisticated mentioned *filioque*. But the web sites consulted on RC-EO differences (e.g., Azkoul, 1994; Gregory, n.d.) mentioned Purgatory as well, counting it one of the top three problems. Of the three points of contention, the papacy is heavily embroiled in historical and political questions and *filioque* in philosophical ones, making each of them too ambitious a topic for a condensed format. So we set them aside in favor of Purgatory. It seemed that Purgatory offered the most meat for pure linguistic or semiotic analysis.

Our original intent was to compare RC teachings on Purgatory with the way an EO theologian characterized the RC teachings and to compare EO teachings on Purgatory with the way an RC theologian characterized the EO teachings. Ideally, this would enable us to isolate linguistic and semiotic differences between the two and highlight possible sources of misunderstanding.

But when ST consulted her priest on an approach to her part of the analysis we were about to undertake, she discovered that WJS had made a fundamental mistake. WJS asked one of his teachers how to say *Purgatory* in Russian and got the answer *Чистилище* [čistiliščе]. This l-participle of the verb *čistit'* 'clean' combined with the suffix *išče* 'a large place' made sense, hence 'a (major) site for cleansing'. The mistake was that the teacher was providing a linguistic or dictionary answer, not a theological one. Or, as ST's priest put it, in EO there is no Purgatory; that is, there is no place called Purgatory as such. But he had an alternative suggestion, that we take a step back and compare RC-EO teachings on life after death.

Redefining the Topic

A topic can be studied in two approaches: inductive and deductive. Since RC has doctrines on Purgatory, we can define a set of its features, a deductive approach. EO, though lacking a distinct doctrine on Purgatory, still has developed doctrines on life after death. By examining these doctrines we may be able to identify a subset that, taken together, inductively provide something like the same effect as RC Purgatory. In this case, RC and EO would potentially be compatible or at least comparable regarding this issue.

In order to provide a reasonable argument within a short presentation, we should examine an outline of the teachings in both traditions to define the similarities and differences. Then semiotic analysis can be applied to the differences to determine which teachings are emic, which are etic, and contrast the differences. The present study is limited to identifying the scenarios that underlie the RC and EO teachings.

The Emic-Etic Dichotomy

The emic-etic dichotomy, once central to Neo-Bloomfieldian phonological analysis, is the idea that a phoneme, e.g., /p/, can have different phonetic manifestations: unreleased [p-] in final position, aspirated [p^h] in syllable onset position, and unaspirated [p] after [s]. Pike (1967) applied the emic–etic distinction to culture as a whole, not just its linguistic part.[1] In the present context, examples of the emic issues are found in the Creed recited at each Mass and Divine Liturgy. An example of an etic difference is making the Sign of the Cross: Roman Catholics sign up-down-left-right, imitating the priest's movements, and Eastern Orthodox sign up-down-right-left, providing a mirror image of the priest's movements. At the same time, this act in either etic variant represents a number of emic beliefs: Trinity, Crucifixion, Resurrection.

The term Purgatory is not in the Creed, but the general understanding is that RC accepts it and EO rejects it. The question becomes, does the presence or absence of the term constitute an emic difference, where a fundamental belief is present in one and lacking in the other, or is it an etic difference, manifesting only—or mainly—in labels? As ST's priest suggested, our topic is broader, teachings on life after death. We begin with an outline of RC teachings and an analysis of the major points with a description of their structure presented in a relational network.

This is followed by the same steps applied to EO teachings. As mentioned above, we stop short of a full discussion of the differences. Our present purpose is not to reach a conclusion, only to provide a platform for discussion and dialogue.

The Afterlife in Roman Catholicism

There are two eternal abodes separated by an unbridgeable chasm: Heaven and Hell. These two abodes dominate the scene. Heaven is the abode of God, the angels, and the saints. Here *saint* should be understood to include not only declared saints like St. John Paul, but all the souls of the faithful departed who have made it to Heaven. Hell, on the other side of the unbridgeable chasm from Heaven, is the abode of Satan, the other fallen angels, demons, and damned souls. But what about human souls that merit neither Heaven nor Hell at death? That is, they are not given over to Evil but are not pure enough to see God. Logic suggests the possibility of an abode that is neither Heaven nor Hell and distinct from them both: Purgatory. This is the topography of the realm(s) where the soul abides after death.

After death a soul undergoes particular judgement to account for its life on Earth: sins, offenses, and negligences vs. acts of faith, hope, and charity. At the end of the particular judgement, the unrepentant and irredeemable souls are consigned to Hell. Those not damned may have pure souls and ascend straight to Heaven. Those lacking that degree of purity go to Purgatory, and here they are made ready for Heaven. The details of what happens in Purgatory

[1] The idea was discarded by generative phonology from the beginning, when Halle (1959) abandoned the idea of phonemic contrast. His arguments have been rebutted by many writers, including WJS and even some generative phonologists, notably those of the Optimality Theory perspective.

are not clear. It seems from some Biblical passages (II Machabees 12:32 et seq., 43-46; Rev. 21:27; I Cor 3:13-15) to have a purifying fire. But is the emphasis here on purification (a positive action of recovery and relief) or on fire (flames that painfully burn away impurities)? Long ago one RC priest, possibly paraphrasing St. John Chrysostom on I Cor 42, explained to WJS that the main punishment in Purgatory is separation from God.

It is also unclear how long a soul must remain in Purgatory. However, it may be understood that the soul remains there until purified, at which point it may ascend to Heaven. At the end of the universe, the Apocalypse, only four last things remain: Death, Judgement, Heaven, and Hell. Purgatory will cease to exist and all the souls remaining there will ascend to Heaven. In short, all those initially sent to Purgatory are saved and will eventually gain Heaven.

Our more conventional linguistic studies are informed by Relational Network Theory, a connectionist theory of language that defines and characterizes phenomena based on their relationships to each other. It should be no surprise that the above scenario strikes us as completely amenable to formalized description in the relational network diagram in Figure 1.

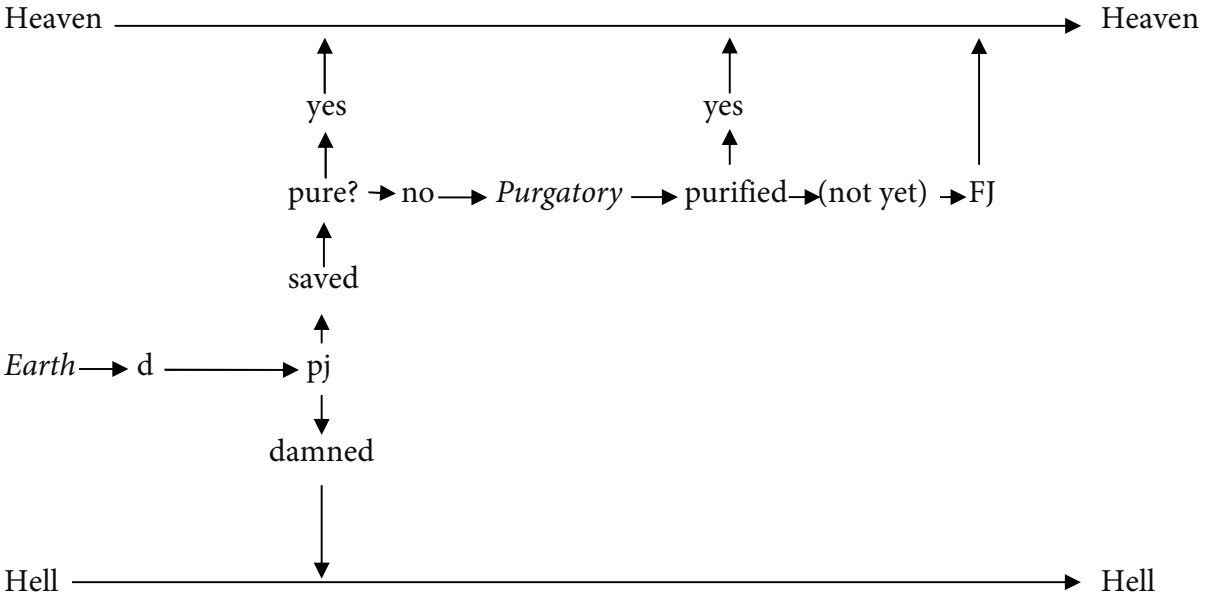

Figure 1: *Life of the soul after death in Roman Catholicism*

Heaven and Hell are well established at the point where the soul is infused in the newly formed and initially developing human person, no more than a few cells in size at most. The person lives out his or her earthly life, dying at (d). The soul undergoes particular judgement (pj) to determine whether it is saved or not. If not saved, it joins Satan and the other damned souls in Hell. If the soul is saved, it still must be examined for its purity. If pure, the soul ascends to Heaven. If not, it enters Purgatory for further purification. At any point the state of purity may be reached, especially if helped by the prayers, sacrifices, and Masses offered by the living, and the soul then ascends to Heaven. If not yet purified, the soul continues in Purgatory until the state of purity is reached. At the end of the universe and no later than the Final Judgement (FJ), Earth and Purgatory cease to exist. All the souls remaining in Purgatory have been purified and ascend to Heaven. Thus the RC teachings on Purgatory.

We turn now to the EO teachings on the subject.

The Afterlife in Eastern Orthodoxy

The EO teachings on life after death are somewhat hard to pin down and in any event seem to be less formally defined than RC teachings, which are also sketchy. Still, an outline of sorts can be drawn up, though where it might lie on a scale from folk belief to formalized doctrine is impossible to say. In any case, our research has been performed in good faith and respectfully. The following synopsis draws largely from materials presented in *Life after Death According to the Orthodox Tradition* (2012), a comprehensive account of the topic by noted theologian Jean-Claude Larchet that relies on both well established and lesser known sources.[2]

In general, the stages after death may proceed as follows. When a person dies, the soul remains on Earth for one to three days. The precise purpose of this is unclear, but in addition to other explanations, it may have its origins in the time Jesus's body remained in the tomb. The more secular-minded might cite a practical desire to make sure the deceased is not buried alive.

Between the third and ninth days, the soul is raised up past stations, according to numerous Patristic texts. Details about the stations along the way remain the subject of debate. Suffice it to say that the soul may be escorted through a series of stations representing the passions, perhaps twenty of them as described by Blessed Theodora, or seven corresponding to the Deadly Sins, where they must give an account of their actions relevant to that sin. During this time one or more angels are trying to lead the soul upward toward Heaven, while demons are trying to drag them down, toward Hell. This may parallel "particular judgment" from RC theology via theologians of Kiev in the 16th century (see further in Larchet, 2012, pp. 129 ff.).

From the ninth to fortieth days the soul may be introduced to the other world, the different parts of Heaven and the different parts of Hell. On the fortieth day, this process results in a decision, whether the soul is mostly good (or mostly evil), and consequently, whether it is housed in Paradise or Hades, there to remain until the Apocalypse. Note that a soul initially assigned to Hades may, through the intercession of saints or the prayers of the faithful, gain Paradise (not shown in Figure 2).

At the Apocalypse and the Final Judgement, Paradise and Hades cease to exist. The souls in Paradise ascend to Heaven and the souls in Hades descend to Hell. The effect would be the same if Paradise and Hades with their resident souls simply merge with Heaven and Hell.

These teachings are summarized in relational network form in Figure 2.

Figure 2 should be read as follows. The soul's abode is in the body on Earth until death at (d). Between (d) and its afterlife journey, possibly through stations (s), the soul remains on Earth. At (s) the soul enters the judgement stations, for example seven of them, and is either on the path upward toward Paradise, or the path downward, toward Hades, with the help of angels or because of the impeding efforts of demons. Again, this perhaps approximates the particular judgement (pj) in RC. The time spent in traversing is not represented. At the Last Judgement, that is, a final judgement (FJ), Paradise disappears or merges with Heaven and all the souls that

[2] This book was brought to our attention by Fr. Cosmin Sicoe of Lexington, KY, who also shared insights on EO teachings on life after death and their doctrinal status. Any errors in interpretation are our responsibility.

had been in it would expect to ascend to Heaven. At the same time, Hades disappears or merges with Hell, and the souls resident therein would expect to descend to Hell.

Figures 1 and 2 represent mere outlines of two belief systems. As such, they may simplify or gloss over unfairly many subtle factors in one or the other of the systems. Oversimplification is not our intent; rather, we wish to establish the boundaries around our topic. Our outline is focused on a single soul, because it is the individual who finds salvation or damnation.

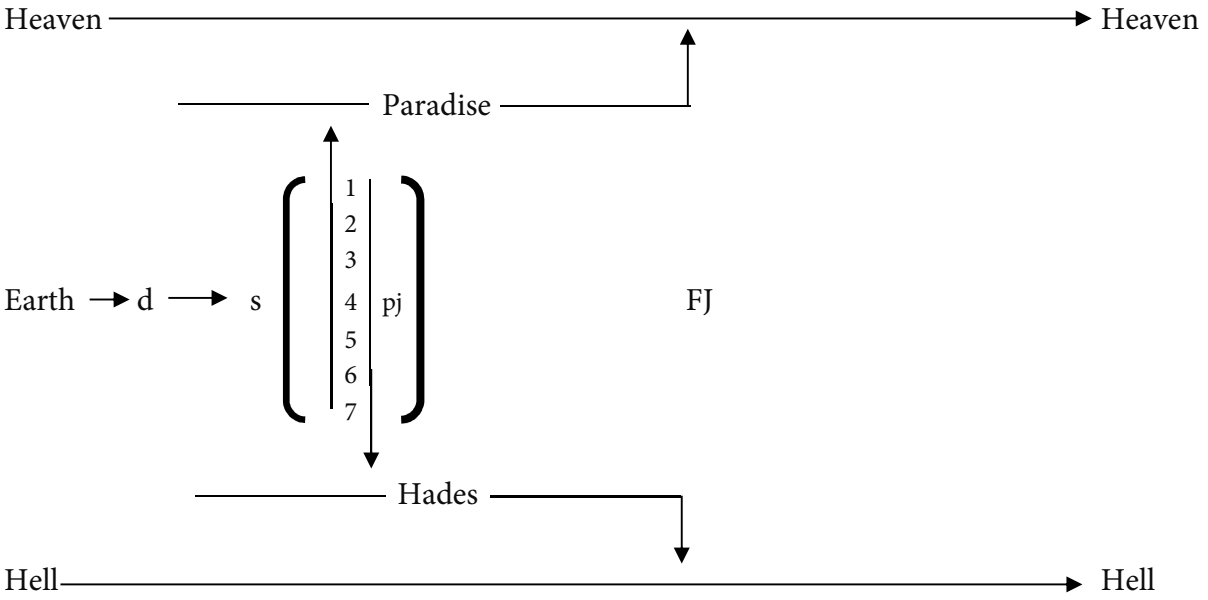

Figure 2: *Life of the soul after death in Eastern Orthodoxy*

A Direct Comparison

The parallels and differences between the EO and RC beliefs about the afterlife are easily discerned by a juxtaposition of Figures 2 and 1.

Note that the same things are eternal in both RC and EO networks: Heaven, Hell, and the individual soul. Earth and any other abodes are temporal. Ultimately the pure souls ascend to Heaven, the evil and damned descend to Hell. At the last or final judgement, only Heaven and Hell are left. Not everything between the Heaven and Hell axes is different, but all the differences are between them. Is there Paradise and Hades or singular Purgatory? Can at least some souls reach Heaven (or Hell) before the Final Judgement in Eastern Orthodoxy?

Not everything there is contrastive, however. The EO stations at (s) in Figure 2 may as well correspond to the particular judgement (pj) in Figure 1. They are in roughly the same position in both networks and they are certainly very similar functionally. Other differences glossed over or ignored in this broad contrast may be similarly equivalent.

Still, there are differences. The real discussion must begin when we try to determine whether these differences are emic, i.e., defining and crucial to the Faith, or whether they are etic, i.e., however important culturally and in practice, not crucial to the Faith. We do not dismiss such etic differences: *Lex orandi, lex credendi* 'the law of praying is the law of believing'

or, more informally, as we pray, so we believe. A saint recognized in EO and not in RC (or the reverse) is important, but not cause for a schism.

In sum, there is material for discussion that could put us one very small step closer to a reunification of RC and EO.

Afterword

During the discussion period following this paper at LingBaW2016, Razvan Saftoiu of the Transilvania University of Brasov, Romania, identified himself as a member of the Romanian Orthodox Church and pointed out the existence of many cultural differences in worship between EO and RC. We acknowledge these and agree to their importance. We would never suggest that they be either discarded, downgraded, or glossed over in a misguided attempt at ecumenism. In fact, this is an important part of the complaints of more traditional RCs against the "major, if not tragic attempt, to 'update' Roman Catholicism" in the spirit of Vatican II (Azkoul, 1994). We would maintain that such badly thought out changes violate the old maxim, *Lex orandi, lex credendi*. EO has nothing to fear from our work on that score.

Is there any hope for a project like this? A historic treaty that formalized the admission of the Ukrainian Greek Catholic Church into full communion with the Roman Catholic Church admitted to differences in the teachings on Purgatory but agreed to disagree on the details (Halsall, 1999). If such an accommodation is acceptable more generally, there is.

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Finding a model for contrastive lexical semantics: A look at verbal communication verbs

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Abstract

A basic problem for contrastive lexical studies in general is to find a model for the semantic analysis. This paper is one in a series of corpus-based contrastive studies of the field of Verbal Communication Verbs (VCVs) in English and Swedish. Searle's classification of speech acts serves as an important starting point but is not directly concerned with lexical structure, which is a major concern for the two theories that are compared in this study. FrameNet based on Fillmore's theory of semantic frames and Wierzbicka's theory of semantic primitives (or "primes"). The theories are applied and tested on data from the English Swedish Parallel Corpus (ESPC) containing English and Swedish original texts together with their translations into the other language. Primarily two groups of English verbs and their Swedish correspondents will be analyzed: (1) Information verbs such as tell, inform, notify, report, narrate and describe and (2) Speech activity verbs such as talk, speak, chat, converse, gossip, discuss, debate, negotiate and bargain. There is also an analysis of Swedish berätta 'tell, narrate' based on the Multilingual Parallel Corpus (MPC) as an example of multilingual contrastive analysis. Frames relate in a clear way the conceptual structure and the syntactic argument structure, which is very useful in a contrastive study. However, the definition of the meaning of individual verbs is incomplete and needs to be complemented with some kind of decompositional analysis such as the theory of semantic primes. A special section is devoted to an analysis of a large number of compound and derived forms of the Swedish verb tala 'speak' and a discussion of how contrasts in morphological structure can affect the lexical contrasts between two languages.

Keywords: corpus-based contrastive study, lexical semantics, FrameNet, English, Swedish, Verbal Communication verbs

This paper is one in a series of corpus-based contrastive studies of the field of Verbal Communication Verbs (VCVs) in English and Swedish. The major focus of two earlier studies (see below) were the most frequent verbs. In spite of the fact that there are around 400 Verbal communication verbs in the Swedish SUC-corpus (1 million words, mixed written genres), the 10 most frequent verbs belonging to the field account for close to 50% of the textual occurrences of VCVs in this corpus. The most frequent verb *säga* 'say' alone accounts for 22% of the VCVs in the SUC-corpus. The situation is obviously very similar in English. The most frequent verbs are also the most varied with respect to the range of constructions they can appear in and the

patterns of polysemy that characterize them. The two earlier studies present rather detailed descriptions of the most frequent VCVs. Viberg (2017a) was concerned with the English verbs *say, tell, speak* and *talk* and their Swedish correspondents and the other study (Viberg, 2016) with verbs of asking and answering in both languages. Even if a few verbs dominate the field, the total number of VCVs is very large. Ballmer and Brennenstuhl (1981) present a taxonomy of no less than 4,800 English speech act verbs (including multiword expressions). The present study will discuss various ways to approach the description of more fine-grained distinctions between VCVs in English and Swedish. The major aim is to identify important concepts for the analysis rather than to give complete analyses of individual verbs.

A basic problem is to find a model that accounts for both semantic contrasts and contrasts in the grammatical realization of semantic distinctions. With that aim in mind, various frameworks will be compared.[1] In particular, the analysis of semantic frames in FrameNet will be complemented with elements from componential approaches such as Wierzbicka (1987) and Miller & Johnson-Laird (1976). The bulk of the paper shows how the analysis can be applied to various groups of VCVs based on corpus data. A special section is devoted to a discussion of how contrasts in morphological structure can affect the lexical contrasts between two languages.

Verbal Communication Verbs (VCVs). A Brief Overview

The major types of verbal communication verbs are shown together with a few illustrative examples in Table 1. The verb *say* holds a unique position with respect to both its high frequency and its semantic generality and is referred to as the nuclear verb of the field (for nuclear verbs, see Viberg, 1993). Verbs foreground (or profile) various aspects of the communication frame. Descriptive communication verbs profile other aspects of the communication than the message. The most important descriptive verbs, in particular *speak* and *talk*, refer to the Speech Activity as such without specifying what is said (the message). In the unmarked case, the nuclear verb *say* as well as *speak* and *talk* refer to oral communication, but these verbs can be used to refer to communication in other media (*The letter says…*, *She talks about this in her mail*). There are a number of verbs that profile one specific medium, most important of which is *write* ranked as the fourth most frequent verbal communication verb in both English and Swedish. Verbs like *murmur*, *stutter* and *shout* refer to the Manner of speaking (such as acoustic and rhythmical properties, emotion and intelligibility). The largest and most important group is represented by the Speech Act verbs, which are used to perform and report speech acts in the sense of Austin (1962). Table 1 follows Searle's (1976) classification of speech acts with some modifications, although the present paper will primarily deal with reported speech acts.

[1] This aim is related to the theme of the LingBaW conference 2016 (CONTROVERSY IN LINGUISTICS AND LANGUAGE STUDIES) even though the comparison is done in the spirit of picking the best parts from each framework rather than discussing controversies.

Table 1: *Verbal communication verbs*

Nuclear verb		say
Descriptive communication verbs		
Speech Activity		speak, talk, discuss, chat, gossip
Medium		write, telegraph, fax, e-mail
Manner of Speaking		murmur, stutter, shout, whisper
Speech Act verbs		
Representatives	Assertives	claim, assert
	Information verbs	tell, inform
Directives		ask, order, request
Commissives		promise, guarantee, vow
Expressives	Verbs expressing emotions	rejoice, complain, scold
	Verbs expressing evaluations	praise, criticize

Primarily two groups of English verbs and their Swedish correspondents will be analyzed. (1) Information verbs such as *tell*, *inform*, *notify*, *report*, *narrate*, *describe*, *explain* and *lecture*; (2) Speech activity verbs such as *talk*, *speak*, *chat*, *converse*, *gossip*, *discuss*, *debate*, *negotiate* and *bargain*. In addition, the role of the morphological structure will be discussed based on the derivational possibilities of the Swedish verb *tala* 'speak'.

Corpora

The analysis will be applied and tested on data from the English Swedish Parallel Corpus (ESPC) consisting of English and Swedish original texts together with their translations into the other language (Altenberg & Aijmer, 2000). The English original texts contain around 705,000 words and the Swedish around 661,000 words. The ESPC is very well-organized. Fiction can be compared to Non-Fiction and the corpus can also be used as a comparable corpus by comparing the original texts in both languages. Below examples from the ESPC will be shown followed by a text code within parentheses based on the author's name (for a list of texts and codes, see Electronic sources). Data will also be taken from the Multilingual Parallel Corpus (MPC), which at present consists of extracts from 22 Swedish novels and their translations into English, German, French and Finnish (around 600,000 words in the Swedish originals). Examples from this corpus will be marked MPC followed by a text code (see Viberg, 2013 for a list of the texts and codes).

Frames in FrameNet

Frame semantics is the theoretical foundation of FrameNet, a large computerized lexical database for English (see Fillmore, Johnson & Petruck, 2003 and Electronic sources). In this theory, verbs (and other relational words) evoke frames – schematic structures of recurring situations (Fillmore, 1982). A frame consists of various frame elements (FEs) such as the ones for Communication shown in Table 2.

Table 2: *The Communication frame and its syntactic realization*

Communicator/ Medium	**Communicative action**	**Addressee**	**Topic**	**Message**	**Medium**
NP	Verb	NP	about/of NP	that-S/to-VP_{inf}	PP
Picasso	tells	us	about his feelings		in his paintings
He	signalled	me		to come	
She	indicated			that I should have a seat	
This painting	(really) speaks	to me			

Verbal communication is a more specific frame that inherits the structure from the Communication frame, which includes both verbal and non-verbal communication. The FE Communicator is represented by Speaker, which is a more specific FE. There are many frames that inherit their structure from Verbal communication, among them Telling, which is defined as follows: "A Speaker addresses an Addressee with a Message, which may be indirectly referred to as a Topic. Instead of (or in addition to) a Speaker, a Medium may also be mentioned." Example: *I* [Speaker] *told him* [Addressee] *about the party* [Topic]. The following words are listed as examples: *advise.v, apprise.v, assurance.n, assure.v, brief.v, confide.v, inform.v, let know.v, notification.n, notify.v, tell.v*. (FrameNet also analyzes nouns, but in this paper only verbs will be discussed.) Table 3 shows some examples of the syntactic realization of the frame Telling. Only the phrase structure is indicated. It is possible to add one more layer showing grammatical relations such as Subject and Object, which will also be referred to in the analysis.

Table 3: *The Telling frame and its syntactic realization*

Frame elements	Speaker	Linguistic action	Addressee	Message	Topic	Medium
Syntactic realization	NP	Verb	NP PP	NP that-S Wh-S	PP	PP
	I	told	him		about it	over the phone
	I	told	her	what I knew		
	I	confided	to friends	that I would cancel debts		
	I	briefed	them all		on the current situation	
	I	apprise	you		of the content of the PM	
	I	assured	them	that everything was OK		

In language teaching, one of the advantages with FrameNet is that it can be used to show, for example, the choice of prepositions marking the Topic. On the other hand, there is no systematic account of the semantic differentiation between verbs that belong to the same frame, such as *tell*, *confide* and *brief*. There is also a Swedish FrameNet (see Electronic sources), which presents a similar analysis of the Telling frame in Swedish.

Decomposition: Primes and logical predicates

Wierzbicka (1987) in her semantic dictionary of English speech act verbs manages to distinguish more than 200 VCVs in a systematic way by using "reductionary paraphrases" based on a restricted set of primitives (or "primes"). *Tell*, for example, is represented as in Table 4.

Table 4: *The meaning of* tell *(Wierzbicka, 1987, pp. 286-287)*

I say: X I say this because I want you to hear it I assume this could cause you/someone to know it.

The definition of each verb is accompanied by an elegant essay, which it is hard to do justice to in a short space. The wording of the definition is intended to show that *tell* has a more general meaning than just to impart knowledge. Among other things, the verb is used to refer to the telling of fictional stories that the Addressee wants to hear but not necessarily uses to acquire factual knowledge. Wierzbicka (1987) divides the VCVs into 37 groups. The TELL group contains *tell*$_{1}$, *report*$_{1,2}$, *narrate, relate, recount, describe, explain* and *lecture*$_{1,2}$. (Some verbs refer to more than one speech act and belong to more than one group. *Tell*$_{2}$, 'tell sb to do sth', belongs to the ORDER group). A definition is provided for each verb in a group, which makes it possible

to distinguish each member semantically. The definition of *tell* can be compared to the definition of *narrate* in Table 5.

Table 5: *The meaning of* narrate *(Wierzbicka, 1987, p. 291)*

I want to say what happened, one thing after another
I want to say many things because of that, one after another
I assume people will understand that one could say it in different ways
I want to say it because I think people would want to hear this
I say (…)

The definition highlights among other things that *narrate* requires many events and emphasizes the temporal order of events. The definitions of other verbs in the group make it possible to make fine-grained distinctions. *Relate* purports to refer to real events and requires a fairly complex subject matter but does not like *narrate* require a narrative line but can rather refer to a flow of situations. *Recount* like *narrate* emphasizes the sequential nature of the events but is closer to *relate* by paying more attention to descriptive detail.

The set of semantic primes in Wierzbicka (1987) has been further developed together with Cliff Goddard into the Natural Semantic Metalanguage (NSM, see e.g. Goddard & Wierzbicka, 1994; 2014). For VCVs, the prime "say" is central and appears in the definitions of all the other VCVs. The primes of NSM cannot be further analyzed. However, it is an open question how far the decomposition should go. Miller & Johnson-Laird (1976) regard their predicate SAY as a combination of producing sounds (*The parrot said 'goodbye'*) and conveying meaning (*The signpost said 'Ten miles to London'*) (Symbolized as UTTER(x, W) and MEAN(x, v).

Information Verbs

Speech acts that are used to describe the world are referred to as Representatives by Searle (1976) and can be reported with two types of verbs: Assertive verbs, which report what is regarded as an opinion by the Reporter, and Information verbs, which report information that the Reporter more or less accepts as a fact. This section will present a corpus-based contrastive analysis of a number of information verbs. Such verbs include the verbs invoking the Telling frame in Frame Net and the verbs belonging to Wierzbicka's TELL group and the closely related INFORM group: *inform*, *inform on*, *notify*, *announce* and *reveal*. It will not be possible to analyze all of these verbs. The selection is restricted to the most frequent verbs and to some related verbs that are reasonably well represented in the two translation corpora.

Tell *and its closest correspondents*

Tell and its closest correspondents in Swedish are analyzed based on data from the ESPC in Viberg (2017a). The major translations of *tell* (as an information verb) are shown in Table 6. The most frequent translation is *säga* 'say', which supports the claim that *tell* has a rather general meaning as an information verb. There are also two frequent verbs that are more direct

correspondents in the sense that they both have *tell* as their dominant translation, when Swedish original texts are translated into English. (English *say* is used as a translation of these two verbs only in a few cases.)

Table 6: Tell *in English original texts in the ESPC and its major translations into Swedish*

	Swedish translations			
	tell	***säga 'say'***	***berätta***	***tala 'om***
Total	583	196	180	78
MESSAGE				
Direct report	79	62	7	1

As is further elaborated in Viberg (2017a), *berätta* tends to refer to a relatively complex message, whereas *tala 'om* tends to relate an individual fact. Intuitively, the prototypical meaning of *berätta* is centered around *berätta en historia* 'to tell a story', even if the majority of the actual examples refer to a less complex message. Clearly the meaning is not as general as that of *tell* (see Table 4 above). Actually, Wierzbicka's definition of *narrate* (see Table 5) comes close to the prototypical meaning of *berätta*. However, *narrate* is an infrequent, rather technical term and does not occur even once as a translation of *berätta* in the ESPC.

As a complement to Viberg (2017a), this study will present data from the MPC showing how the two verbs *berätta* and *tala 'om* in original Swedish texts are translated into English, German, French and Finnish. Example (1) shows the verbs that most frequently are used as translations of *berätta* and the realization of the FEs Message and Addressee.

(1) Henry ***berättade*** för mig att han tjutit som en kalv på begravningen. (MPC: KÖ)
Henry ***told*** me that he had howled like a calf at the funeral.
Henry ***erzählte*** mir, er hätte bei der Beerdigung geheult wie sonst was.
Henry me ***racontait*** qu'il avait pleuré comme un veau à l'enterrement.
Henry ***kertoi*** minulle parkuneensa hautajaisissa kuin mölyapina.

In Swedish, the Addressee is realized as a PP with the preposition *för*, which typically marks an Expriencer, whereas it is realized as an object in English and is marked as a dative in German and French (and *à* + Noun). In Finnish, it is marked with the allative case (*-lle*), which signals the Receiver but also motion to a place. The Message is realized as an indirect report (a that-S clause in Swedish, English and French, whereas German uses a specific subjunctive clause and Finnish a participial construction that can replace a *that*-S clause.) Data about *berätta* are summed up in Table 7.

Table 7: *Swedish* berätta *in the MPC corpus*

Total number of occurrences of *berätta:* 344								
Frame elements	Message			Topic			Addressee	
	288		84%	113		33%	90	26%
Major translations (N>2)of berätta								
English		*German*		*French*			*Finnish*	
tell	255	erzählen	279	raconter	175		kertoa	316
say	14	sagen	9	dire	36		sanoa	4
talk	16	sprechen	3	parler	59		puhua	4
describe	4	berichten	17	expliquer	14			
explain	6	mitteilen	3	annoncer	5			
recount	4	sich äussern	3	relater	3			
relate	5			informer	3			

The extent to which various FEs are explicitly realized contrasts across languages. The section at the top of Table 7 shows that the Message is usually (in 84% of the cases) realized explicitly in Swedish, whereas the Addressee is realized only in 26% of the cases. This means that *berätta* focuses on the Message. In English original texts (Viberg, 2017a), *tell* has an explicit Addressee in 90% of the cases. The simple exchange in (2)-(3) shows how this plays out in context. In (2b), only the Addressee is explicit, but the Message is implicitly retrievable from (2a) and the same applies to (2c).

(2) a. "I'm moving into the forest now," said Ronia. (MPC: AL)
b. "You must *tell* Lovis [Ø]."
c. "Why don't you *tell* her [Ø] yourself?" asked Tapper.

In (3b), which is the Swedish original text (with *tala om*, the other major correspondent of *tell*), the Addressee is explicit, since it represents new information that is not implicit in the context, but in (3c), where both the Addressee and the Message are mentioned in the preceding context, the Message is explicit (*det* 'it') in Swedish but not the Addressee (as in English 2c).

(3) a. "Jag flyttar ut i skogen nu", sa Ronja. (MPC: AL)
b. "Det ska du ***tala om*** för Lovis." [It shall you tell Lovis]
c. "Varför ***berättar*** du inte det [Ø]själv", undrade Tjegge.
[Why tell you not it yourself]

There are several parallel examples that illustrate that *tell* focuses on the Addressee to a greater extent than *berätta*, whereas the Swedish verb to a greater extent focuses on the Messsage.

As can be observed in Table 7, one verb dominates as a translation of *berätta* in all languages. However, the degree to which that applies varies greatly. Finnish *kertoa* is used as a translation as much as in 92% of the cases, whereas French *raconter* only reaches 51%. (German

erzählen: 81%, English *tell*: 74%). One reason why French *raconter* is used less than the major translations in the other languages has to do with the use of a Topic as in (4).

(4) Då ***berättade*** Jonatan för mej om Karmanjaka, (MPC: AL2)
Then Jonathan began to ***tell*** me about Karmanyaka,
Und da ***erzählte*** mir Jonathan von Karmanjaka,
Alors Jonathan m'a ***parlé*** de Karmannyaka,
Silloin Joonatan ***kertoi*** minulle Karmanjakasta,

The Topic marked with a preposition in all languages except Finnish where it has a case marker, the elative (*-sta* in *Karmanjaka-sta*), which basically has a spatial meaning ('out of'). What is particularly noteworthy is that *berätta* in (4) is not translated with *raconter* in French but with *parler* 'speak/talk' that is a speech activity verb. As can be observed in Table 7, where Speech activity verbs are placed on the same line as *talk*, *parler* is used as a translation more frequently than its correspondents in the other languages. *Parler* is primarily used when *berätta* has an explicit Topic (49 examples out of the 59, when *parler* is used as translation). Actually, *raconter* is also used as a translation 43 times (out of totally 175), when *berätta* has an explicit Topic, but in those cases the Swedish Topic often corresponds to an object of *raconter* as in (5) or is restructured in some other way.

(5) På vägen ***berättade*** Sigrid om den uppenbarelse hon hade haft. (MPC: JG)
On the way Sigrid ***told*** him about the vision that she'd had.
Sur le chemin du retour, Sigrid ***raconta*** son apparition. [Sigrid told her vision]

When *berätta* is combined with an explicit Topic it functions as an atelic speech activity verb rather than a telic speech act verb. This can be tested with durational adverbs: *Peter berättade om sin hund* ***i*** *två timmar* 'Peter (?told me)/ talked about his dog ***for*** two hours' vs. *Peter berättade historien* ***på*** *fem minuter* 'Peter told (me) the story ***in*** five minutes'. It appears that *raconter* stays closer to the prototype ('tell a story') than Swedish *berätta* does. In order to test this, French original texts must be included in the analysis. The fact that *tell* is used as a translation of *berätta* as often as in 74% of the cases seems to indicate a close semantic relationship, but, as was demonstrated above, translations from English into Swedish show that *tell* has a much more general meaning than *berätta*. Actually, in addition to the Swedish original texts analyzed in Table 7, the MPC also contains extracts from six French original novels and their Swedish translations. The French original texts contain 23 *raconter*, out of which 19 are translated by *berätta*. The Swedish translations of the same texts contain 60 *berätta*. In addition to the 19 *raconter*, *berätta* is used as a translation of *parler* 15 times. Even if data are limited, they clearly indicate that *raconter* does not (like English *tell*) have a large set of uses that are not covered by *berätta*. The extension of *raconter* obviously is more restricted than that of *berätta*.

Table 8 shows the most frequent translations of *tala 'om*. It turns out that this verb has the same dominant translation as *berätta*, except in French where *dire* 'say' is more frequent as a translation than *raconter*. This means that the contrast between *berätta* and *tala 'om* is language specific and has no direct semantic equivalent in the other languages. As mentioned, *berätta* has the prototype 'to tell a story' and in general tends to refer to a complex set of events or facts,

whereas *tala 'om* tends to refer to a single fact. English, German and Finnish do not make this distinction and use one verb to cover both meanings, whereas *raconter* stays closer to the prototype of *berätta*. For that reason, the major option is to use the most general speech act verb *dire* 'say' to translate *tala 'om*.

Table 8: *Swedish* tala 'om *in the MPC corpus*

Total number of occurrences *tala 'om*: 65

Major translations of *tala 'om*

English		*German*		*French*		*Finnish*	
tell	40	erzählen	24	raconter	9	kertoa	41
say	5	sagen	16	dire	24	sanoa	7
talk	5	sprechen	2	parler	3	puhua	4
speak	2	erklären	4	expliquer	5	jutella	2
report	2	berichten	2	annoncer	2	selittää	2
		mitteilen	3	prévenir	5	ilmoittaa	3
		verraten	2				

The analysis presented above only gives examples of some important contrasts but should suffice to show how a close study of the distribution and realization of frame elements across languages can be used to explain the variable patterns of translational correspondence.

More Specific Information Verbs

Both English and Swedish have a relatively large number of more specific information verbs. This section will give some examples how these are used to express more specific meanings and how these verbs are related to the most basic information verbs.

Focus on the Addressee. Information verbs are concerned both with the specific factual information contained in the message and who has been given that information. In face to face interaction, production and reception of the message occurs simultaneously (for practical purposes). In institutional settings, a message such as a decision by the board can be drawn up by a small group of people and then disseminated later to a wider group of people. There are a number of verbs that typically are associated with such situations even if some such verbs also are used more generally in informal conversations. Verbs like *inform* and *notify* in English and the Swedish verbs *informera*, *upplysa*, *meddela* and *underrätta* are examples of this type of verbs and focus on the Addressee. All these verbs take the Addresse as a canonical object that can be passivized. In (6) and (7), the original Message is already known to the receiver of the reported speech.

(6) – Jag har ***informerat*** Svedberg och Martinson, fortsatte Björk. (HM2)
"I've ***filled in*** Svedberg and Martinson," Björk went on.

(7) There had to be people I should ***notify***, and I didn't know who. (DF1)
Det måste finnas personer som jag borde ***meddela***, och jag visste inte vilka.

As shown in Table 9, the Addressee is expressed as an object in the unmarked case. The Topic is also relatively often expressed explicitly as in (8), but the Message more seldom.

(8) The Council shall ***inform*** the European Parliament ***of*** its recommendation. (MAAS1)
Rådet skall ***underrätta*** Europaparlamentet ***om*** sin rekommendation.

When the Message is expressed, the Swedish verbs tend to keep the Topic preposition *om* 'about' as in (9).

(9) She ***informed us that*** she planned to spend that night, (JSM1)
Hon ***upplyste oss om att*** hon tänkte stanna över natten, [She informed us about that-S]

Table 9: *Information verbs that focus on the Addressee*

Speaker	Linguistic action	Addressee	Topic	Message
NP	Verb	NP	about/of NP	that_S
			om NP	om att-S
She	informed	us	about her plans	
Hon	informerade upplyste underrättade	oss	om sina planer	
She	informed	us		that she intended to stay
Hon	informerade upplyste underrättade	oss	om	att hon tänkte stanna

Focus on the Topic. Verbs like English *describe* and *characterize* and their Swedish correspondents *beskriva* och *karakterisera* focus on the Topic which is realized as an object (see 10). The Addressee is optional and realized as a PP.

(10) He described his religion ***to*** the king, (LT1)
Han beskrev sin religion ***för*** kungen

The Message can be realized as a description marked with *as/som* and indicates the category of the Topic in the form of an NP (see 11) or indicates its properties with one or more Adjective (*He is often described as irresolute*).

(11) Far ***karakteriserade*** mormor ***som*** en härsklysten satkäring. (IB1)
Father ***described*** Grandmother ***as*** a domineering bitch

The Topic is often passivized as in (12).

(12) Jag tror det kan ***beskrivas som*** ett slags förälskelse.(PE1)
I believe it could ***be described as*** some kind of falling in love.

Table 10: *Information verbs that focus on the Topic*

Speaker	Linguistic action	Topic	Addressee	Message: Categorization/Description
NP	Verb	NP Wh-S	to NP	as NP/Adj
			för NP	som NP/Adj
He Han	described beskrev	his religion sin religion	to the king för kungen	
Tegnér Tegnér	described beskrev	Lund Lund		as an academic peasant village. som en akademisk bondby.

Describe and the verbs of similar type cannot take a that-S complement but can take a how-S or what-S complement (see 13). Such complements are Topics rather than Messages.

(13) He ***described how*** he proved the superiority of Norwegian ski over the North American snow shoe. (RH1)
Han ***beskrev hur*** han hade bevisat de norska skidornas överlägsenhet över de nordamerikanska snöskorna,

Both in English and Swedish, there are a number of more specific verbs that pattern like *describe* (see 14) and are based on the metaphor that something is described in pictures or painted in words (WORDS ARE PICTURES), for example English *depict* and *portray* and Swedish *utmåla* (lit. 'out'- + 'paint') and *skildra* (etymologically derived from German *schilderen* 'paint a coat of arms', cf. Germ. *Schild* 'shield').

(14) Yet to modern ears, this is a horrible story: it ***depicts*** God ***as*** a despotic and capricious sadist (KAR1)
/---/ Den ***utmålar*** Gud ***som*** en despotisk och nyckfull sadist,

Speech Activity Verbs

Speech activity verbs differ from speech act verbs by not specifying the Message. This means that only Addressee and Topic are realized in addition to Speaker: *Mary* [Speaker] *talked to Marvin* [Addressee] *about the movie* [Topic]. The basic English speech activity verbs *speak* and *talk* are analyzed in detail in Dirven et al. (1982) and Viberg (2017a) compares these two verbs with their closest correspondents in Swedish *tala*, *prata* and *snacka*. After a brief summary of an earlier study of *speak* and *talk* directly below, the following section will show how the analysis can be extended to the non-basic, more specialized speech activity verbs.

Speaking and Talking

Speak and *talk* focus on the linguistic activity as such, not the Message, as *say* does (see Viberg, 2017a). The distinctive feature of *talk* is that it focuses on linguistic action as discourse. The subject of *talk* often has the role as speaker-interactor and the verb is also topic-prone and can take the topic as object in a way that *speak* does not (*talk shop/politics* etc.). *Speak*, on the other hand, can focus on the actual speech production (*Don't speak Che Guevara's name*) and can have the code as direct object (*speak English*). In Swedish, there is no parallel to the semantic contrasts between *talk* and *speak*. The contrast between *prata*, *snacka* and *tala* (as a speech activity verb) is rather stylistic but also depends on the formality of the speech situation to which the verb refers. *Tala* tends to refer to a formal speech situation and is the verb that is used to refer to the delivery of a speech. In addition, *tala* has a rich potential to form phrasal verbs and compound and derived verbs with a specialized meaning, which will be discussed in the last section before the Conclusion.

Specialized Speech Activity Verbs

Speak and in particular *talk* have large sets of hyponyms/troponyms, for example *chat*, *converse*, *gossip*, *discuss*, *debate*, *negotiate* and *bargain* in English and *småprata*, *samtala*, *konversera*, *skvallra*, *debattera* and *diskutera* in Swedish. All of these focus on interaction and contrast by referring to specific types of topics and goals of the talking. *Chat* and *småprata* ('small' + 'talk') refer to informal social talk for relaxation and topics that should not be too serious (see 15).

(15) We exchanged greetings, and ***chatted*** a little ***of*** current concerts and performances. (OS1)
Vi utbytte hälsningar och ***småpratade*** litet ***om*** aktuella konserter och framträdanden.

Konversera – converse also refers to social talk but topics can be a little more serious. In Swedish, the Addressee can appear in the object slot as in (16).

(16) började Percy ***konversera gästerna*** på sitt nyvunna artiga sätt. (ARP1)
Percy began to ***converse with his guests*** with his newly acquired courteous manner.

The Swedish verb *samtala* ('together' + 'talk') is more frequent than *småprata* and *konversera*. Like these two words it focuses on interaction (see 17) but otherwise it is more general and is used as a correspondent of *converse* and *talk* and even of *speak together* and *chat*.

(17) Its companions ***conversed*** amongst themselves, laughing in throatless undertones as they went along. (BO1)
Hans kamrater ***samtalade*** sinsemellan och skrattade halslöst och lågmält medan de fortsatte sin väg.

Gossip and *skvallra* refer to indiscreet talk about other people's weaknesses (see 18) but need not be very serious. *Förtala* is a derivation of *tala* and refers to malicious gossip and legally refers to defamation.

(18) He said, "I don't ***gossip*** with Harold, Ginny." (JSM1)
Han sa: "Jag ***skvallrar*** inte med Harold, Ginny."

Diskutera – discuss and *debattera – debate* focus on verbal interaction but also have a focus on the topic which appears in the object slot as in (19). See also Table 11.

(19) Med sina uppdragsgivare ***diskuterade*** han sällan ***metoderna***. (KOB1)
He seldom ***discussed methods*** with his masters.

The topic is a real object that can be passivized (see 20) (cf. the object of *talk*: **Business was talked*).

(20) Olika åsikter ***debatterades*** öppet i en flora av tidskrifter och i tidningar (AA)
Various opinions ***were*** now ***debated*** freely in a flora of journals and news sheet

The aim of a debate is to present arguments for and against certain ideas and requires that there are at least two opposite views.

Table 11: *Speech activity: Focus on Interaction and Topic*

Interlocutors	**Linguistic action**	**Topic**	**---**	**Text location**
Speaker			**Addressee**	
NP	Verb	NP	with NP	PP
			med NP	
Tim and Tom	discussed	politics	with one another	
Tim och Tom	diskuterade	politik	med varandra	
I	'll discuss	politics		in chapter 5
Jag	diskuterar	politik		i kapitel 5
Jag	behandlar	politik		i kapitel 5
	'treat'			

The aim of a discussion is rather to reach a decision. That is explicitly signaled when the topic is realized as an if-S or WH-S complement in the object slot (see 21).

(21) At that age you don't ***discuss*** whether or not you're going to be friends, you just are. (JB1)
I den åldern ***diskuterar*** man inte om man ska vara vänner eller ej — man bara är det.

In academic texts, *discuss* is often used in a weaker sense as in (22) to indicate that a specific topic is treated more in detail in a specific part of the text. Typically, the verb is in passive form. This kind of realization, where the Topic appears in the subject slot, is shown in Table 12.

(22) The imaginary exercise of seeding Mars with life, or even of bringing Mars to life, ***is discussed*** in chapter 8. (JL1)
Den tänkta uppgiften att beså Mars med liv, eller till och med att ge Mars liv, ***diskuteras*** i kapitel 8.

In Swedish, *behandla* 'treat', 'deal with' is rather often used as an alternative translation (see 23).

(23) Many matters ***discussed*** in this annual report (PHA1)
Många av de frågor ***som behandlas*** i denna årsredovisning [that are treated]

Table 12: *An example of the realization with a verb in passive form*

Topic	Linguistic action	Text location
NP	Passive Verb	PP
Politics Politik	will be discussed diskuteras/behandlas	in chapter 5 i kapitel 5

Tala and the Morphological Potential of Swedish

Contrasts between languages in the general morphological structure contribute to lexical differences. Swedish has a greater potential than English to form derived verbs that are transparently related to the most basic verbs within a semantic field. There is a continuum between grammatical markers that function as free words and bound grammatical markers (cf. the use of case to mark Addressee and Topic in Finnish). For that reason it is motivated to begin by looking at prepositions, which are important in both English and Swedish as markers of Addressee and Topic. In Swedish *med* 'with' is the dominant marker of the Addressee with *tala* and practically the only marker when *prata* and *snacka* are used. This preposition marks the Addressee as an interactor and underscores the interactive nature of *prata* and *snacka*. In English, *to* is the unmarked preposition and is often used even when the Addressee is conceptualized as an interactor. *With* is used only exceptionally to mark the Addressee as in (24). In Swedish, *till* 'to' can be used only with *tala* and unambiguously signals that the talking is mono-directional.

(24) Han talade ***till*** George, men han talade ***med*** Augusta. (SCO1)
He was talking ***to*** George, but ***with*** Augusta.

Worth mentioning is also a special case where English and Swedish are similar. Both languages mark what Dirven et al (1982) refers to as a transmitter with the corresponding prepositions *through* – *genom* (see 25). A transmitter (e.g. a spokesperson) only produces the speech which expresses the message of the original sender which is treated grammatically as the Speaker.

(25) Sedan talar han till mig ***genom*** Maria. (PE1)
Then he talks to me ***through*** Maria.

Talking to oneself without another person as addressee is signaled with the preposition *för* 'for' in Swedish (see 26) and can be used with all three speech activity verbs referring to overt speech (cf. *säga sig* – *say to oneself*, which can refer to silent talk, i.e. to thinking).

(26) These are the ones most likely to talk ***to*** themselves. (MA1)
Det är de som oftast pratar ***för*** sig själva.

The preposition *för*, which basically marks an Experiencer or a Beneficiary, appears in a number of other combinations that are worth noting. It can be used when speaking on behalf or in favour of someone else, for examples *somebody who is simply speaking* ***on behalf of*** the *tobacco industry* (EJAC1) translated: *någon som helt enkelt talar* ***för*** *tobaksindustrin* (cf. *Tala för dig själv - Speak for yourself* (*don't take for granted that I agree*). In Swedish, *för* can be used as a marker of a plausible conclusion, whereas the subject indicates the kind of support on which the conclusion is based (see 27). There are 15 examples of this use in the ESPC, all in Non-Fiction. The verbs *indicate* and *suggest* are the most frequent translations.

(27) Alla relevanta studier ***talar för*** att de yngsta barnen har den högsta incidensen av luftvägsinfektioner. (CP1)
All relevant studies ***indicate*** that the youngest children have the highest incidence of respiratory tract infections.

Lexical contrasts must be judged against general structural differences between the languages being compared. There are important differences between English and Swedish with respect to word formation (compounding and derivation). Comparing speech activity verbs in English and German, René Dirven says: "To put the case in a somewhat extreme way, German thrives on its morphological potential to create forms for meanings; English, in contrast, has to create all sorts of syntactic devices and tap the metaphorical potential of language to cope with its conceptual drive" (Dirven, 1990, p. 261). Swedish similar to German has a rich morphological potential. The derivational possibilities of *tala* are demonstrated in Table 13. For comparison, parallel structures with verb particles and prepositions are shown in the last two lines. The derivational processes are general and very productive. They are exploited to a very great extent to form VCVs. Only a small proportion of the Swedish VCVs are simple verbs. The number of Romance borrowings is also low in comparison to English.

Table 13: *The morphological potential of tala*

Compound: Noun-Verb **Accent II**	valtala	'make an election speech'
Prefix (non-separable) **Unstressed**	förtala	'slander, defame'
Prefix (non-separable) **Stressed, Accent II**	samtala	'converse'
Bound particle **Stressed; Accent II**	omtala	'mention'
Free particle **Stressed**	tala 'om	'tell'
Preposition **Unstressed**	'tala om	'talk about'
Note: Stress is marked with an apostrophe, which does not appear in the standard orthography.		

Compounding is very productive even if many of the compounds have low frequency and several of them are occasional. A typical example is *valtala* 'make an election speech' consisting of the noun *val* 'election' and the verb *tala*. It is possible to add another noun: *EU-valtala* 'make an election speech as a candidate for the EU parliament'. An important characteristic of Swedish compounds is that they are pronounced with word accent II. A selection of additional examples is given in Table 14 to give an idea of the productivity. Most of these compounds refer to formal or institutionalized speech events and the nouns in most cases indicate the type of event.

Table 14: *N-V compounds with* tala

Compound: Noun-Verb
hälsningstala, inledningstala, öppningstala, invigningstala, avslutningstala, premiärtala, jungfrutala, Almedalstala, hyllningstala, middagstala, avskedstala, högtidstala, griftetala, festtala, majtala, förstamajtala, sommartala, gästtala, brandtala, buktala

Swedish has a number of prefixes, which by definition cannot occur as free words, i.e. they are non-separable. There are two very frequent prefixes, which are unstressed: *för-* and *be-*. Both are used with *tala*. *Förtala*, which means means 'slander', is an old verb but still is transparently related to *tala*, whereas *betala*, which means 'pay' and is a borrowing from Middle Low German *betalen* (*be-* + *talen* 'count'), probably is not experienced as related to *tala* by most speakers. (However, the noun *tal* still has the meaning 'number' in addition to 'speech'). There are also derivations with a stressed non-separable prefix such as *samtala* 'converse, discuss' and *åtala* 'prosecute'. These verbs are pronounced with accent II and form a transition to the large and important group that will be treated next.

Many combinations of verb + particle can be used both with the particle as a free word and with the particle preposed as the first element in a compound verb with accent II. The use with the particle as a free word is unmarked and the most frequent alternative. It can be used both

when the meaning is literal and when it is figurative. As demonstrated in Johannisson (1954), bound forms usually have a nonliteral meaning. Occasionally, a bound form appears with literal meaning but then it tends to be very formal or sound obsolescent. Compare examples such as (28) and (29). (The German translation will be commented on later.)

(28) Ann ***talade in*** ett meddelande [talked in a message]
Ann left a message (on the answering machine)

(29) Men jag försöker ***intala mig*** att känna glädje. (MPC: PCJ2)
But I try to ***persuade myself*** to feel happy.
German: Aber ich versuche mir ***einzureden***, daß ich mich freue.

When *tala* is used with the free particle *in* as in *tala in* (*ett meddelande*), *tala* has its literal meaning, whereas the meaning is abstract when the particle is bound as in *intala* (*sig*, reflexive) 'persuade (oneself)' based on spatial metaphors (IDEAS ARE THINGS and THE MIND IS A CONTAINER: 'to put an idea into a person's mind by talking').

Several prepositions can also be used as particles. Then they are stressed and follow special word order rules. This applies to *om*, which is unstressed and used as a preposition in *'tala om* 'talk about' and stressed and used as a verbal particle in *tala 'om* 'tell' (see above). There is also an initial bound form: *omtala* 'mention'. Sometimes it is not obvious which form is more abstract as in *uttala* 'pronounce' and *tala ut* 'speak one's mind', but this does not contradict the general rule that free particles can be used with a literal or figurative meaning, whereas the bound form in general is figurative. The variety of derivations and alternations between free and bound forms of many prepositions and verbal particles represents a rich potential to express a large number of separate meanings which often are relatively transparently related, at the same time as there is a high degree of conventionalization and specialization of the meaning. The derived forms of *tala* are shown in Table 15.

Table 15: *Bound particles and prefixed forms with* tala *'speak/talk' in Swedish*

Bound particles. Stressed		**Non-separable prefix. Stressed**	
uttala	1. 'pronounce' 2. 'express'	åtala	'prosecute'
tilltala	1. 'address' 2. 'please'	samtala	'converse'
övertala	'persuade'	**Prefix: Non-separable. Unstressed**	
intala	'talk sb into'	förtala	'slander', 'defame'
avtala	'agree on', 'appoint'	betala	'pay'
vidtala	'arrange with a person to do sth'		
påtala	'criticize'		

Derived forms can be derived a second time: *uttala* 'pronounce' > *feluttala* 'mispronounce' (*fel* 'error'): *åtala* 'prosecute' > *alternativåtala* 'prosecute in alterative ways'; *betala* 'pay' > *delbetala* 'make a partial payment' (*del* 'part'). Some of the derived verbs have several meanings. For example, *uttala* 'pronounce' can also mean 'express' as in (30) and in the reflexive (*uttala sig*) 'make a pronouncement'.

(30) I flertalet studier ***uttalas*** misstankar om alltför liberalt bruk av antibiotika (CP1)
Most studies ***express*** doubts about the excessively liberal use of antibiotics

The semantically and stylistically regulated alternation between compound and free forms in Swedish is different from the corresponding alternation in German, which is one of the phenomena that has attracted most attention in German word formation. In German, the alternation between prefixed and free particles in separable verbs such as *aussprechen* (out- + speak) 'pronounce', *zusagen* (to- + say) and *einreden* (in-+ talk) 'persuade' is grammatically regulated, whereas there are no grammatical restrictions on verbs in Swedish except that participles always have bound particles. For example, in German the bound form must be used in the infinitive (see example 29 above). In addition, the infinitive marker *zu* appears between the bound particle *ein-* 'in-' and the verb stem *reden* 'talk'. On the other hand, free forms must be used in the present and past tense in main clauses, compare *Ich rede mich ein –Jag intalar mig* 'I persuade myself'. In Swedish, there is a change of meaning, if the free form is used: *Jag talar in ett meddelande* 'I am recording a message'. Subordinate clauses only allow bound forms in German but subordination does not affect the choice between bound and free forms in Swedish. In Swedish, it is possible to exploit the formal alternation between free and bound forms to signal semantic contrasts and to create new lexical items. Often the bound forms have a very specific meaning and are used in specialized registers (administrative and legal language, academic prose). In some cases, the alternation between free and bound forms is only stylistic without any clear semantic differentiation, but that applies to rather few combinations (e.g. *upphöra* and *höra upp* can both be used in the sense 'cease, stop').

In an ongoing study based on the ESPC, all compound verbs containing the bound forms of the spatial particles *in/ut* and *upp/ner* ('down') are studied. In all there are 37 such compound verbs (types) that can be used as verbal communication verbs in the ESPC (see Viberg, 2017b Section 4.3.2).

Conclusion

This paper has compared FrameNet and Wierzbicka's theory of semantic primitives as models for corpus-based contrastive lexical studies. Wierzbicka's (1987) semantic dictionary of English speech act verbs presents detailed descriptions of more than 200 VCVs and can be used as a model for a similar analysis of other languages. The theory of semantic primes aims at giving unique definitions of each individual verb and accounts for fine-grained distinctions between verbs that are closely related semantically. On the other hand, there is no clear link to the syntactic realization of the argument structure.

FrameNet provides a rather robust account of the basic conceptual structure of sentences with VCVs in terms of the core frame elements (FEs) and also accounts for the grammatical realization of the argument structure of the verb. An additional advantage of FrameNet is that it covers a rather extensive part of the lexicon in English and a growing number of other languages, among them Swedish (see Electronic sources). A major limitation of FrameNet is that it does not provide a unique semantic (or conceptual) representation of each lexical unit that belongs to a certain frame.

In a corpus-based contrastive study based on FrameNet, it is possible to study contrasts between correspondents by looking quantitatively at different patterns of realization of FEs as was done for *tell* and *berätta*. *Tell* and *berätta* are described with the same FEs but still differ in meaning. One way to describe this contrast is to say that *tell* focuses on (or profiles) the Addressee, whereas *berätta* focuses on the Message. However, some reference to semantic primes or some other componential theory is needed as well, for example, to account for the language-specific contrast between *berätta* and *tala om* in Swedish.

A closer look at the way FEs are realized with words belonging to the same frame as was done, for example, with *inform* above, makes it possible to give a more fine-grained analysis of words with related meaning. In this way, contrastive comparison can contribute to the further development of framenets of individual languages.

Most frameworks for contrastive lexical analysis seem to ignore the role of differences in the general morphological structure between the languages that are compared. This is highlighted in the last section above, but much remains to be done to integrate morphology into a general model of semantically based lexical comparison.

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Text-image relationships in contemporary fairy tales

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Abstract

The article analyzes relations between the text and the image as two different semiotic modes in the framework of multimodal studies. Key theoretical approaches to this issue are outlined. Visual and verbal narratives are examined at three levels: ideational, interpersonal and textual. The ideational meaning system comprises actions, characters and circumstances. The interpersonal system covers a wide range of issues connected with interaction between the reader and the characters. The textual meaning is realized by giving prominence to certain objects in the image or the text. Logico-semantic relations of elaboration, enhancement and extension are revealed. Elaboration is characterized by clarification and exemplification, the image may be more general than the text, and vice versa. Enhancement relations include various circumstances (temporal, spatial, causal), besides, both the text and the image may enhance each other. Extension adds new, semantically unrelated information and offers alternative ways of story unfolding. The research is based on contemporary picture books (J. Scieszka, L. Anholt, F. French, R. Munsch) and illustrated fairy tales (E. Delessert, B. Ensor) and directed at revealing various types of text-image relations.

Keywords: text, image, contemporary fairy tale, multimodal discourse analysis

Introduction

One of the recent tendencies in linguistics is the development of multimodal research, aimed at the analysis of various semiotic systems that create meaning. Relations between the text and the image as two different semiotic modes are one of the areas of multimodal studies. Traditionally texts and images were analyzed by separate branches of science with their own approaches and methods of research. However, within multimodal studies the text and the image are considered as a combination of interrelated modes. Correlations between verbal and visual elements have been examined in the works of such scholars as R. Barthes, 1977; B. Spillner, 1982; M. Nikolajeva, C. Scott, 2006; D. E. Agosto, 1999; K. Schriver, 1997; H. Stöckl, 2009; R. Martinec and A. Salway, 2005; G. Kress and T. van Leeuwen, 1996; T. D. Royce, 2007; J. Bateman, 2014 and others.

The aim of this paper is to analyze relationships between verbal and visual fragments in contemporary fairy tale retellings. One of the tendencies of the end of the 20th – the beginning

of 21st century was proliferation of retellings of classic fairy tales. They differ from traditional fairy tales in a number of ways: they have contemporary setting, first-person narrative (they are often told by the protagonist or the antagonist of traditional fairy tales), characters' psychological development and revision of traditional gender roles. In our analysis we will focus on contemporary picture books and illustrated fairy tales.

Picture books occupy a separate genre niche due to the importance of visual narrative in them. Well-known researchers of picture books M. Nikolajeva and C. Scott (2001) pointed out that "the unique character of picture books as an art form is based on the combination of two levels of communication, the visual and the verbal" (p. 1). They singled out the following types of picture books: symmetrical picture books (with two mutually redundant narratives), complementary picture books, in which words and pictures fill each other's gaps, 'expanding' or 'enhancing' picture books, where visual narrative supports verbal narrative, 'counterpointing' picture books with two mutually dependent narratives and 'sylleptic' picture books, containing two or more independent narratives (Nikolajeva & Scott, 2001, p. 12). The distinctive feature of picture books is the 'dual' nature of their narratives, interdependence of the image and the text, while in illustrated books the text plays the dominant function and illustrations appear at certain points to provide a visual expression of events at these points. Thus, visual narrative has a lot of gaps that are filled by the text.

D. E. Agosto (1999) in his analysis of picture books distinguished two main categories: augmentation and contradiction. The first category includes irony, humour, intimation, when visual elements help to interpret the text, fantastic representation (in the case of a realistic text and imaginary visuals) and transformation, where the combination of the text and pictures transforms the meaning of each of them if taken separately. The second group of storytelling strategies, apart from irony and humour, which may belong to both categories, includes disclosure – when the reader is aware of some information unknown to the characters. D. E. Agosto has also pointed out that more than one strategy may be realized by the author simultaneously.

As it has already been mentioned, the text and the image are two different semiotic modes. According to M. A. K. Halliday's systemic-functional linguistics, every semiotic system operates at three levels. First, it represents reality by referring to certain objects and situations (ideational metafunction). Second, each semiotic system establishes some kind of interaction with the recipient (interpersonal metafunction). Finally, it builds a textual structure with coherent components (textual metafunction) (Halliday, 1978). Visual grammar of G. Kress and T. van Leeuwen (1996) finds parallels between the text and the image by examining the latter at the three above-mentioned levels. For instance, at the ideational level, viewers determine which fragment of the world is depicted in the picture, whether it denotes some action, process or is simply a conceptual representation. Correspondingly, images, such as verbal clauses, may have participants, processes and circumstances. At the interpersonal level, pictures can either offer information or demand some action from the reader. G. Kress and T. van Leeuwen in their analysis of reader-character relationships refer to the following visual meaning systems: social distance, attitude (including involvement and power), contact and modality. Social distance is realized by a shot size: whether a character is presented in 'close up', 'mid shot' or 'long shot' (Kress & van Leeuwen, 1996, p. 124). The degree of involvement depends on the angle from

which the character is viewed, and the reader has a maximum sense of involvement when characters are presented facing him 'front on'. Vertical angle is the realization of power: what the reader/viewer looks up to has power, and, on the contrary, everything he looks down on is considered to be weak (Kress & van Leeuwen, 1996, p. 140). Distance between viewers and images varies: from focus on details to a generalized picture. The same is true about the degree of reality, as images can be naturalistic or schematic (Kress & van Leeuwen, 1996, p. 121). At the textual level, viewers receive information according to the value of some of the elements, as is the case of the centre/ margin structure, where the main element is positioned in the centre and subsidiary elements on the margins. Objects placed close to each other may be semantically connected. Besides, such visual devices as colour, shape, lighting give prominence to key semantic elements.

C. Painter, J. R. Martin and L. Unsworth in their book *Reading Visual Narratives* (2012) has reinterpreted and elaborated G. Kress and T. van Leeuwen visual grammar. In particular, at the interpersonal level, apart from social distance, involvement and power, they examined such meaning systems as focalization, pathos, proximity, orientation, ambience, affect and graduation. Focalization is connected with the direction of the character's gaze and can be mediated, when the reader's gaze is aligned with the character's and the process of viewing happens through the eyes of the character, and unmediated (Painter, Martin & Unsworth, 2012, p. 21). Pathos is determined by the drawing style of the picture, which can be minimalist, generic or naturalistic, which, in turn, determines the degree of engagement and empathy from the reader. Affect includes emotions depicted in facial features and bodily stance of characters. Such systems as proximity and orientation go in parallel with those of social distance and involvement, but take into account the relations of characters to each other: the former determines the degree of closeness of characters to each other, the latter – the bodily orientations of characters to each other (Painter, Martin & Unsworth, 2012, p. 17). Ambience deals with colour choices and is further divided into the systems of vibrancy (depends on the depth of saturation), warmth (contrast between warmer and cooler colours) and familiarity, which is realized by the amount of colour differentiation in the image (Painter, Martin & Unsworth, 2012, pp. 37-38). Finally, the graduation system includes scaling and quantification (e.g. repetition of elements, exaggerated size).

Cohesion introduced by M. A. K. Halliday and R. Hasan is widely used in the context of text-image relations. T. Royce has further developed the notion of cohesion. According to his model of intermodal complementarity (Royce, 2007), it is necessary to identify visual processes and their visual participants in the visual narrative and find relations between them, verbal processes and participants in the text discourse. Such cohesive relations between textual and visual rendition of a certain episode form intermodal cohesion.

B. Spillner (1982) came up with the idea of priority, and argued that one semiotic mode might determine the meaning communicated by another, and in asymmetric situations one semiotic mode would be primary and the other secondary. Moreover, both the text and the image could take the primary role (Spillner, 1982, p. 92). B. Spillner also distinguished cases when one semiotic system – either texts or images – acquired the functions of the other. For instance, texts may communicate dynamism with the help of typography or be 'shaped' in a certain way to emphasize a particular meaning. Images become dynamic as a result of the so

called visual vectors – explicit or implicit lines created by visual forms (e.g. direction of movement of characters' arms and legs, their gaze etc.).

K. Schriver (1997) offered his own classification of relations between elements of documents belonging to different semiotic modes, including texts and images: redundant, where the same information is expressed in two modalities; complementary, where the information in one mode complements the information contained in the other mode, but they are equally important; supplementary, where one mode dominates the other; juxtapositional, where the meaning is created as a result of a tension between the information in each mode; stage-setting, where one mode provides a context for the other mode (Schriver, 1997, pp. 412-428).

R. Martinec and A. Salway (2005) introduced a detailed classification of text-image relations, which was based on two broad categories: status and logico-semantic relations. Equal status relations envisage that an entire text is related to an entire image and are further divided into two subtypes: independent (when the text and the image do not merge and exist as parallel meaning systems) and complementary (when both the text and the image contribute to the meaning), while unequal status relations exist when part of the text relates to the image or vice versa. Logico-semantic relations are divided into two large groups: expansion and projection. Expansion includes elaboration, extension and enhancement. These notions were first introduced by M.A.K. Halliday (Halliday & Matthiessen, 2014, p. 460) to explain relations between parts of sentences, but they are suitable to describe text-image relations as well. Elaboration adds further information or exemplifies, and either the text can be more general than the image or vice versa. The former type of relations is called by researchers exposition and the latter – exemplification. Exemplification is often accompanied by lexical cohesion. The second subcategory of expansion, enhancement, specifies information connected with time, place, manner etc. Finally, extension adds new, semantically unrelated information and offers alternative ways of story unfolding (Martinec & Salway, 2005, p. 358).

T. van Leeuwen analyzed the following relations between visual and verbal elements: elaboration, which included specification (when the image makes the text more specific or vice versa) and explanation (the text paraphrases the image or vice versa); and extension, including similarity (the content of the text is similar to the content of the image), contrast (the content of the text contrasts with that of the image) and complement (adding further information) (van Leeuwen, 2005, p. 230).

H. Stöckl, apart from content-related relations between texts and images which included elaboration and extension, considered also spatial-syntactic and rhetorical-logical patterns. In the first case one mode follows the other in a sequence or the text and the image are spatially integrated to be perceived simultaneously as an entity. Rhetorical-logical patterns include three broad types of linkage: coordination (relations between the text and the image are based on likeness, contrast, spatial-temporal contiguity), hierarchy, when one mode governs the other, and coincidental, allusive and meta-communicative connections (Stöckl, 2009, pp. 214-219).

Text-image relations at the ideational, interpersonal and textual levels

Our first task is to examine visual and verbal narratives at three levels: ideational, interpersonal and textual. The ***ideational*** meaning system comprises actions, characters and circumstances. As it has already been mentioned, actions are visually realized with the help of vectors, which help such static medium as an image to express dynamics. Let's analyze several examples from contemporary fairy tales. The first example is taken from L. Anholt picture book *Little Red Riding Wolf*:

> The Big Bad Girl leapt out of bed, down the stairs, out of the door, into the forest and along the path as fast as her big bad legs would carry her (Anholt, 2002, p. 56).

The illustration accompanying this text fragment depicts a girl who runs as fast as she can, leaving puffs of dust and drops of sweat behind her, all this creates the visual vector of her movement. In this case the image amplifies the text. Verbal realization of the action is carried out by a verb '*to leap*' indicating a material process of motion. In the next example from J. Scieszka *Little Red Running Shorts* the movement is conveyed not only by visual vectors, but also by means of other devices:

> Let's go wolf. We're out of here (Scieszka, 1992, p. 22).

The illustration depicts how Little Red Running Shorts and the Wolf go from Jack the narrator, leaving footprints behind them. This track of footprints toward the left side of the page clearly indicates the action of leaving the page. Verbally the action is expressed by the material process verb '*to go*'. This picture contains one more action – Jack's talking, indicated by his open mouth and hand gestures, and verbally realized by his reply *"Wait. You can't do this."* In some fairy tales talking in the visual narrative is rendered by means of speech bubbles and cognition – by thought bubbles. In the corresponding verbal narratives these actions are expressed by verbal and mental process verbs.

Let's examine the depiction of characters in fairy tales in terms of character manifestation, appearance and relations (Painter, Martin & Unsworth, 2012, p. 64). Character manifestation may be complete or metonymic. For instance, in F. French *Snow White in New York* on two adjacent pages the reader can see two hands: one with a ring with a skull carrying a cocktail with a poisoned cherry, and the other without any distinctive features. We assume that the first hand belongs to the stepmother and the second – to Snow White. Another example of metonymic character manifestation can be found in L. Anholt's *Little Red Riding Wolf*, when a large furry paw appears in the doorway, and the text below the picture gives further explanations:

> At that precise moment Old Granny Wolf pushed open the door (Anholt, 2002, p. 51).

Other cases of metonymic character manifestation include silhouettes. In the same fairy tale, on the pages dedicated to the description of Snow White's death, a large number of black silhouettes represent crowds of people that stood in the rain and watched Snow White's coffin

pass by. In B. Ensor's *Cinderella* the majority of illustrations contain silhouettes of characters. For instance, two symmetrically arranged silhouettes of Cinderella's and prince's heads contain the thoughts of the characters:

> Thank goodness she doesn't know that my mother made me take dance classes!
> Thank goodness he doesn't know I got a total makeover from my fairy godmother!
> (Ensor, 2011, pp. 62-63)

Adjacent arrangement of images invites their comparison, in particular, of thoughts that appear simultaneously in two characters' minds. In J. Scieszka's *Little Red Running Shorts* there is an illustration with white cut-outs of Little Red Running Shorts and the Wolf indicating their absence from the story. This is an example of non-traditional postmodernist fairy tale, in which the narrator loses control over the characters and the process of book creation and its material character is foregrounded. As a rule, the main characters of fairy tales reappear in the pictures with new descriptive details, in different clothes or accessories. For instance, in R. Munsch's *The Paper Bag Princess* the main heroine's royal clothes were burnt by a dragon, and she has to wear a paper bag, but it doesn't prevent readers from recognizing her.

Finally, such element of ideational meaning as circumstances deals with the setting of the fairy tale. For instance, time in *Snow White in New York* is visually indicated by the rising sun and verbally – by the time expression '*in the early morning*'. Sometimes visual depiction of time (e.g. moon, lighted windows) has no corresponding verbal specifications. Inter-circumstance options include decontextualization, when the setting is reduced compared to the previous depiction and characters are brought into focus, and recontextualisation, where the setting is increased (Painter, Martin & Unsworth, 2012, p. 79). In *Snow White in New York* two conceptual images of Snow White and her stepmother are followed by the description of New York skyscrapers and a bridge with a tiny figure of Snow White and one of her stepmother's bodyguards whom she ordered to shoot the girl in down town. This is an example of recontextualisation. The text fragment contains such place references as '*down town*' and '*dark streets*'. The setting of two successive images sometimes remains the same, but it may be viewed from a new perspective through zooming in or out. It happens, for instance, during Snow White's performance in the club, when first she is depicted on the stage singing accompanied by seven jazz-men, and, in the following picture, the stage is viewed from the perspective of a newspaper reporter who watches the girl's performance. The place is also specified in the text ('*the club*').

The ***interpersonal*** meaning systems cover a wide range of issues connected with interaction between the reader and the characters. For instance, full page portraits of Snow White in F. French and E. Delessert fairy tales facing the reader 'front on' create a sense of intimacy and involvement between the reader and the character. Besides, they gaze out to meet the reader's gaze, so a direct contact is established between them, while other characters depicted at an oblique angle make the reader more detached from them. If characters don't gaze out to the reader, focalization can be unmediated and mediated. We find examples of mediated focalization in *Snow White in New York*, when the reader's gaze is aligned with the reporter's as he watches Snow White singing. Verbal focalization is expressed by a mental cognitive verb '*to*

know' referring to the reporter as an internal focalizer. An interesting example can be found in E. Delessert's *The Seven Dwarfs*. Here visual focalization is mediated, i.e. the reader sees Snow White coming to the room 'over the shoulder' of the dwarfs. At the same time in the text the focalizer is the girl:

> Early the next morning when we awoke, the young girl was standing in the kitchen doorway watching us (Delessert, 2001, p. 17).

Verbal focalization is expressed by a verb of perception '*to watch'*. R. Munch's *The Paper Bag Princess* ends with the princess standing with her back to the reader looking at the rising sun. Such mediated visual focalization has no verbal correspondence. Talking about another component of an interpersonal meaning system – pathos, it has to be mentioned that contemporary fairy tales with illustrations depicted in the minimalist style (e.g. L. Anholt's *Little Red Riding Wolf* or *Snow White and the Seven Aliens*) make the reader a rather detached observer of the characters, at the same time they add humorous effect. Pictures in generic style from F. French and E. Delessert fairy tales increase the reader's empathy to the depicted characters. Verbally, pathos is realized through characterization.

Colours of illustrations, in particular, their vibrancy, warmth and differentiation, determine the ambience (Painter, Martin & Unsworth, 2012, p. 36). Pictures in *Snow White in New York* are characterized by high saturation that creates a sense of vitality, while muted colours of illustrations in *The Seven Dwarfs* create a more restrained feeling. There is also a contrast between the warmer colours (red, yellow, orange) of pictures depicting Snow White's performance in the club, and cooler blue, brown and black colours of the illustration of her funeral. Such choice of colours reflects the emotional states of the characters. These emotions find their verbal realization in the text:

> All New York was shocked by the death of beautiful Snow White (French, 1989, p. 25).

Some picture books, for instance, those of L. Anholt, are entirely in black and white, and their simple line drawings have no ambience. Others use a restricted palette. For instance, pictures in black, white and red in *Rood Rood Roodkapje* by E. van de Vendel signal removal from reality and isolation of the main character. Visual graduation in *Snow White in New York* is realized by a double-page spread divided into two unequal parts, one of which features the stepmother putting a poisoned cherry in a cocktail and the other – a large number of guests at the grand party given by the stepmother.

One of the key elements of ***textual meaning*** is framing. Illustrations in F. French's fairy tale are unbound, as they extend to the page edge, apart from two large portraits of Snow White and the stepmother, which are framed by admirers and bodyguards respectively. Though both frames are done in dark hues, the one surrounding Snow White's portrait consists of smiling faces of men, two of whom hold bouquets of red flowers, while the frame surrounding the stepmother's portrait is formed of sulky and gloomy faces. These frames reinforce the ambience and highlight the contrast between the two main heroines. All the images in this book are

contextualized (there is no white space background), whereas illustrations in E. Delessert's book are bound with a margin of white space enclosing them.

In some fairy tales mirrors become 'frames within the frame'. Sometimes mirror frames have distinct masculine traits, as they contain men's faces and may be associated with patriarchal masculine voices (Joosen, 2011, p. 230). Frames in some contemporary fairy tales undergo transformations as their plot unfolds. For example, in P. Heins's *Snow White* the frame of the huge mirror that belonged to the stepmother, consisted of skulls, heads and bodies of trolls and devils, including the queen's own head and a smiling she-devil parodying a crucified Jesus Christ. When, on the final page of the book, the image of the mirror appears again, a remarkable transformation takes place: the evil faces are replaced with more pleasant and mostly female ones and the skull on top of the frame turns into the head of a beautiful woman. But several dark figures are still hiding in the shadow. The modified frame has a symbolic meaning: the future which awaits Snow White may be much more pleasant than her stepmother's life, but still the danger of repeating her fate remains.

The integration of the image and the verbiage in the layout of contemporary fairy tales takes several forms. First of all, characters' words may appear in speech bubbles, as is the case in L. Anholt *Little Red Riding Wolf*. It is an example of projected layout (Painter, Martin & Unsworth, 2012, p. 99). Expanded layout is characteristic of F. French's *Snow White in New York*, where the verbiage appears on the image, thus creating the strongest fusion between words and images. In A. Ikhlef's picture book *Mon Chaperon Rouge* there is a more subtle integration of the image and the verbiage: in one of the illustrations, the text appears on the page of a large book within the book, which acts as a cradle for a little girl in red. Textual meaning is also created with the help of the focus. If we analyze the pictures from F. French's fairy tale, the majority of double-page spreads are polarized: some of them are mirroring (e.g. portraits of Snow White and her stepmother mirror one another), there are also balanced (when both poles of composition are filled) and unbalanced (e.g. when one pole contains a large picture of the stepmother during her wedding, and the other – a small lonely figure of Snow White) focus groups.

Logico-semantic relations of elaboration, extension and enhancement

Let's analyze in more detail the text-image relations of elaboration, extension and enhancement. Elaboration takes place when the same participants, processes and circumstances are depicted in the picture and mentioned in the text. Elaboration is further subdivided into exposition, specification and exemplification. Cases of exposition, when the whole text fragment corresponds to the image, are more characteristic of picture books with small text fragments on a page. In the case of ***specification***, either the image makes the text more specific or, vice versa, the text makes the image more specific. Let's consider the following example:

> Crowds of people stood in the rain and watched Snow White's coffin pass by (French, 1989, p. 27).

This example is taken from a contemporary fairy tale by F. French *Snow White in New York*. We see how the illustration specifies the text: the coffin is depicted in the black hearse and Snow White is lying in the coffin in a pink dress. The second example also refers to the funeral of Snow White, but other details are highlighted:

> We tied her coffin between two horses and rode with the hunters to the castle (Delessert, 2001, p. 28).

Here we see that the coffin is carried by two horses, and dwarfs and hunters walk behind the coffin through the forest. It is also an example of mediated focalization, as the whole funeral procession is observed from behind the backs of two forest animals.

Text-image relations of specification often provide more information connected with the character's appearance or clothes. For instance, in F. French's *Snow White in New York* after mentioning in the text about the second marriage of Snow White's father there is a large picture of the girl's stepmother. It is done in a generic depiction style, demonstrating green iris of the woman's eyes, eye-lashes and a beauty spot on her right cheek. According to C. Painter, J. R. Martin and L. Unsworth (2012), generic texts invite more empathy on the part of the reader (p. 33). Another illustration from T. Ungerer's fairy tale *Little Red Riding Hood* depicts the wolf wearing magnificent clothes, a wide brim hat with a feather and a cross-shaped medal. Probably, such imposing appearance makes the main heroine address the wolf as '*Your Excellency*', '*noble Prince*', and the wolf, in his turn, asks to be called '*Duke*'.

The following two text extracts and illustrations that accompany them are examples of ***exemplification***:

> The Big Bad Girl was just about as BIG and BAD as a girl can be, and all the woodland animals were afraid of her (Anholt, 2002, p. 4).

> She shouted rude things at any little animal who passed by (Anholt, 2002, p. 6).

While in the text *all the woodland animals* are mentioned, the first illustration makes this general reference more concrete by depicting a squirrel, a hedgehog, a badger, several hares and even birds that disperse, seized by fear. In the second example the textual element (*any little animal*) is specified not only by the illustration, where a family of hares is depicted, but also by another verbal fragment, contained in a speech bubble (*Come on, Big Ears. Hop to it!*). As we can see, hyponyms are widely used in exemplification.

In the next example the deictic phrase '*this one'* is specified:

> "Please, my dear," he begged, "wear this one for me." (Anholt, 2002, p. 16)

Only by looking at the illustration we understand that Big Bad Girl's father asks her to wear a palm-tree like hat. According to R. Martinec and A. Salway (2005), such cases of deixis belong to unequal status, when the text is subordinate to the image (p. 351).

As previously mentioned, ***enhancement*** offers information connected with time, place, manner, reason, purpose etc. In the following example the setting of the illustration is clarified with the help of the text:

> Once upon a time in New York there was a poor little rich girl called Snow White (French, 1989, p. 4).

From the text, the reader understands that the city depicted in the picture is New York and not any other city. In the next example, the opposite process takes place – the image enhances the text:

> Snow White wandered the streets all night, tired and hungry. In the early morning she heard music coming from an open door. She went inside (French, 1989, p. 9).

The illustration contains the sign '*Blue Diamond Club'* and the depiction of musicians, so the illustration specifies the place which Snow White entered. Enhancement may occur without mentioning the name of the place in the text or in the picture:

> Of course, he could not bring himself to cut off that precious snubby nose, so he quickly modeled a false one out of some pink Plasticine which he always carried in his pocket (Anholt, 2002, p. 27).

The picture which accompanies this text fragment depicts Snow White's father in a café making a nose out of pink Plasticine which he is going to give to the girl's stepmother as a proof of her death (a parody to Snow White's heart that the stepmother ordered to bring her in the classical fairy tale). The illustration demonstrates the place which is not mentioned in the text. The text enhances not only spatial but also temporal parameters of the image:

> But the Big Bad Girl had no choice. She pulled the ghastly nightcap right down to her eyes and climbed into the bed, just as Little Red Riding Wolf came running up the stairs, skippety-skip (Anholt, 2002, p. 47).

The girl in the picture is lying in bed, one of her feet in boots peeping out of the blanket, and from the text it becomes clear that she got into bed when the wolf was climbing the stairs. Temporal enhancement in this example refers to the same time in textual and visual fragments. There are also cases of different temporal relations which denote events that happened earlier or later.

In the following example verbal and visual components are connected by manner:

> And the red riding hat was useful … when they had an especially heavy load (Anholt, 2002, p. 63).

It is not clear from the text in which way the hat is useful, but the illustration enhances the text by depicting the wolf who uses the red hat to carry wood. In the next example, it is not the image which enhances the text, but the text which enhances the image:

> And so, Snow White's father led his beautiful daughter far into the wild and dangerous city. With tears streaming down his face, he bought her an all-day bus pass and kissed his sweet daughter goodbye (Anholt, 2002, p. 26).

The picture depicts a bus taking Snow White away, and her depressed father who walks away. The picture is enhanced as a result of using, in the text, the construction 'with + –ing form' (*With tears streaming down his face*) indicating manner. Causal relations exist between the following text fragment from *Snow White in New York* by F. French and its accompanying image:

> All the papers said that Snow White's stepmother was the classiest dame in New York. But no one knew that she was the Queen of the Underworld (French, 1989, p. 6).

In the picture we see the stepmother with a pistol in her hand, who has just fired, but the target is invisible to the reader. The described situation proves that the stepmother belongs to the underworld.

Finally, ***extension*** is the third type of relations between the image and the text, when semantically unrelated information is added. Let's look at the following two examples:

> Little Wolfie was the sweetest, fluffiest, politest little cub you could ever hope to meet. He would run along the path, skippety-skip, carrying a basket of freshly baked goodies for Old Granny Wolf, singing all the time … (Anholt, 2002, p. 10).

> Snow White and the reporter fell in love. They had a big society wedding, and the next day cruised off on a glorious honeymoon together (French, 1989, p. 30).

In the first example such animals as deer, hares, a badger, a squirrel and even a snail listen to the wolf's song, but no listeners at all are mentioned in the text (unlike the case of elaboration in the same picture book, when a generic noun '*animals*' was specified). As for the second example, we can see the stepmother accompanied by two men near the police car. Thus, the story extends and the reader finds out about the stepmother's arrest, though this information is missing in the text fragment. In both of the above-mentioned examples visual fragments extend verbal ones, but in the next example the opposite process takes place:

> But Old Granny Wolf was out chopping wood in the forest (Anholt, 2002, p. 43).

We see a room without anybody inside, and the text extends the image explaining where exactly the granny is at the moment. Extension relations may include elements of contrast, if the content of the text contrasts with the content of the image, as in the following example:

> As the days passed, Snow White made friends with King Henry, gathered eggs and mushrooms and even tidied the house (Delessert, 2001, p. 22).

The picture depicts the courtyard with hens, a duck, a pig (King Henry*)* and Snow White taking water from the well, but there are no indications of processes mentioned in the text. In some cases relations of enhancement and extension are combined:

> Then, the Mean Queen would scream with laughter and march around the house croaking her ancient songs … (Anholt, 2002, p. 15).

The reader can see the stepmother 'playing the broom' while mice are listening to her. Enhancement of manner adds a humorous effect to the fairy tale. Depiction of mice is an example of extension, as in the text there is no mentioning of any kind of audience. Besides, the dynamics of the action is rendered by depicting the stepmother in several (namely four) different poses, which creates the effect of being in constant movement.

To sum up, there are various approaches to the analysis of correlations between visual and verbal fragments within the multimodal studies framework. Both the text and the image may be analyzed at the ideational, interpersonal and textual levels. The ideational meaning system comprises actions, characters and circumstances. Actions are visually realized with the help of vectors, speech and thought bubbles and verbally – by material, verbal and mental process verbs. Depiction of characters in fairy tales is realized in terms of character manifestation, appearance and relations. Character manifestation may be complete or metonymic (parts of the body or silhouettes). Elements of ideational meaning, such as circumstances, deal with the setting of the fairy tale, which may be reduced, increased or viewed from a different perspective.

The interpersonal meaning system covers a wide range of issues connected with the interaction between the reader and the characters. It is visually realized by means of unmediated and mediated focalization, various depiction styles, ambiance and verbally – by verbs of perception, characterization, emotion and evaluative language. The textual meaning in contemporary fairy tales is realized through framing, various types of integration of the image and the verbiage, and focus.

Cohesive ties that exist between verbal and visual elements create intermodal cohesion at the level of processes, participants and circumstances. Image-text logico-semantic relations found in contemporary fairy tales, include elaboration, enhancement and extension. Besides, the text can be more general than the image, or vice versa. There are cases when an entire text is related to an entire image (equal status), or when a part of the text or the image relates to the image or the text respectively (unequal status). Further research of text-image relations may include the comparative analysis of correlations between the text and the image in comics, as well as the multimodal analysis of such transmedial phenomena as digital narratives, computer games, films, cartoons.

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Quantifying a successful translation: A cognitive frame analysis of (un)translatability

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Abstract

Assessing the success of a translated text is one of the controversial topics often discussed in the field of translation studies. The definition of a so-called successful translation is itself controversial. Therefore, for the purpose of this study, the success of a given translation may be defined as transmitting a similar, though rarely identical, semantic frame reference in the Target Language (TL) as was intended by the Source Language (SL) and may be quantified by comparing alternate translations and choosing the one with the highest number of equivalent frame references. One of the factors which could be considered detrimental to the production of a successful translation, as defined above, is the (un)translatability of cultural terms. Cultural terms, defined here as expressions referring to concepts or entities that are unique to a certain culture, are believed to be untranslatable. This paper uses Arabic VISUAL frames referencing the Egyptian garment *ǧal-labiy-ya* (or *ǧilbāb*) as an example and argues that (un)translatability can be quantified using semantic frames based on the assumption that all SL terms have multiple frame references, some of which, mostly the ones indicating denotative meaning, have parallels in the TL while some others, mostly the ones indicating connotative meaning, do not. The degree of (un)translatability may, therefore, be quantifiable by observing which TL terms possess a higher rate of similar frame references in SL, which aids in the evaluation of translated texts in terms of relative equivalence and the degree to which the Target Text (TT) audience receives similar information to that received by the Source Text (ST) audience.

Keywords: Frame Semantics, Cognitive Semantics and Translation, VISUAL Frames, Translating Cultural Elements

1. Introductory Notes

1.1. The Translation of Cultural Elements

The translation of cultural elements, expressions denoting concepts or entities that are unique to a certain culture, presents an issue that seems to almost constantly yield opinions tending toward the conclusion that cultural elements are, to various degrees and for various reasons, untranslatable. However, the absolute untranslatability of cultural elements is disproved by the existence of hundreds of translated texts full of such elements. Though quality might be disputed, the fact that they are indeed translations is indisputable. Any text has a degree of

untranslatability to it, whether it is cultural or linguistic; it can be claimed, however, that certain elements can never be translated adequately due to the limited existence of equivalent or, less ambitiously, similar semantic frames in the Source Language (SL), although adequacy remains relative.

The question, however, is not whether a term is translatable, but rather how translatable it is in the given context. The premise of this study is that there is a grey area between the fully translatable and the fully untranslatable where terms are partially translatable based on how many of the total number of SL frame references activated by the SL reader can be similarly activated by the Target Language (TL) reader. This means that the higher the percentage of TL frames activated by the TL reader that are also activated by the SL reader, the more successful the translation is considered. This gives translators, editors, and academics a mental gauge by which to assess the success of a TL text and attempt to augment its faithfulness to the SL text or otherwise identify the areas which are truly untranslatable and prioritize accordingly in terms of time and effort. Whereas past studies of the same topic focus on proving, or otherwise disproving the applicability of English-based frames in creating parallel lexicon fragments in other languages to be used in translation, the present study focuses on examining what happens when the English-based frames are not applicable.

1.2. Semantic Frames and Translation: Lexicons and Typologies

According to Boas (2013), the use of frame semantics to create translation resources, both for automated and manual translation, was largely motivated by the creation of the FrameNet Project (Lowe, Baker, & Fillmore, 1997), an annotated, corpus-based English lexicon employing the principles of Frame Semantics. The idea was to create parallel annotated lexicons based on the original English lexicon in order to streamline the translation process, as suggested by Fillmore & Atkins (2000), Petruck & Boas (2003), and Boas (2002; 2003; 2005) (Boas, 2013). The process of creating parallel frame-based lexicon fragments based on English frames has been successfully performed in a diverse set of languages including Japanese (Ohara et al., 2004), Spanish (Subirats & Petruck, 2003), and German (Burchardt et al., 2009), but Arabic has only been significantly subjected to small-scale, frame-based analyses as recently as 2009 (Abdul-Baquee & Atwell, 2009).

Although previous studies rely heavily and almost exclusively on FrameNet for their data analysis, the present work also introduces the semantic frame typology originally introduced by de Vega (1984), and later adapted by Rojo (2002 a&b). This is due to the fact that FrameNet tags are a complex system designed primarily for artificial intelligence purposes. The typology used in this research, however, is a more simplified system targeting manual translators and proofreaders. Its hierarchical system makes it easier for a translator or a researcher in the field of manual translation to keep track of the frames used in the text, thus providing a fast and effective quantification tool.

De Vega identifies the five most basic frames as VISUAL (frames decoding visual perception, such as the content one normally sees within a room), SITUATIONAL (scripts) (frames indicating knowledge of common situations, such as going to school or the hairdresser), DOMAIN (frames

guiding discourse production and understanding), SOCIAL (frames organizing social knowledge) and SELF-CONCEPT (frames indicating each person's perception of themselves). SOCIAL frames are furthermore divided into generic frames, such as 'intelligent person' or 'shy woman', and themes, such as social roles and relationships.

Rojo (2002 a&b) uses Frame Semantics to analyze the translation of cultural elements and humor from Spanish into English through dividing the concepts in the Source Text (ST) into a frame typology and comparing it to the frames in the TT, which is also the method used in the present study. The frame typology employed in these studies is a modified version of de Vega's typology resulting in the following frames: VISUAL frames, SITUATIONAL frames, TEXT_TYPE frames, SOCIAL frames and GENERIC frames. She also divided de Vega's SOCIAL frame into four sub-types: INSTITUTIONAL frames (indicating systems created by society), GEOGRAPHICAL frames, SOCIAL STATUS frames, and INTERPERSONAL frames.

Of the aforementioned typology, the present study uses VISUAL frames in SL (Modern Standard Arabic) and TL (English) as an example of the semantic void resulting from frame incongruence between the two languages involved in the translation process. The present study also applies a modified version of the typology based on its more extensive data, where SOCIAL, GENERIC, and SITUATIONAL frames are the same, but TEXT_TYPE frames are expanded into TEXTUAL frames, which includes the sub-frames TEXT_TYPE and RHETORICAL_DEVICE, and VISUAL frames are expanded into PERCEPTUAL frames, under which various sensory/perceptual frames fall.

1.3. What are VISUAL Frames?

In the original frame typology (de Vega, 1984 and Rojo, 2002), the term *visual frames* was used independently to indicate the cognitive interpretation of the visual perception of objects and situations. For the purposes of this study, VISUAL frames are regarded as part of the larger, more extensive PERCEPTUAL frame in order to cover a wider spectrum of objects, situations, and events. In this case, PERCEPTUAL frames are decoded by what the reader has experienced through the use of the senses which form their knowledge of the physical world. Perception, including vision, is essentially one of the tenets of cognitive semantics. The ability of the brain to formulate descriptions of what it sees and hears, forming images of the world around it, indicates the close link between cognition and perception (Gärdenfors, 1999). When reading a text, the reader invokes knowledge of things previously seen, smelled, tasted, heard, or touched, in order to gain a full understanding of the information encoded within the text. In cases where the encoded PERCEPTUAL frame does not exist in the Target Text (TT) reader's repertoire, there will be a gap in the stream of information decoded throughout the processing of the TT.

It can be argued that perceptual universals exist in some cases where the encoded information is not exclusive to the SL and/or SC. For example, *water* is something that would be decodable to any reader, regardless of where they are from or which language has helped shape their knowledge of the world, since any reader can visualize the (usually) colorless, odorless fluid they use for drinking and washing. However, although it may seem a word like *bird* could receive the same treatment, since birds are rather ubiquitous creatures occurring

almost everywhere, decoding a seemingly simple sentence like *I saw a bird,* even though it would receive the same translation رأيت طائراً *raʔaytu ṭāʔiran*, would involve the visualization of different birds in the cognitive process of text interpretation. This becomes more complicated with visual interpretations of such things as commercial brands, which may not be readily available in the Target Culture (TC), or things exclusive to the ST, such as a Middle Eastern dance or a Scottish haggis. In this case, instead of the cognitive, real-world property of perception being linked to the anchoring lexical item in the text, there exists a void where an image should be invoked. This could lead to one of two outcomes: (a) the item is undecodable to the TT reader due to its non-presence in their culture (and therefore in their linguistic repertoire) or (b) the item exists in a different form or manner from the one encoded in the ST, in which case the TT decodes a different, though sometimes relatively connected, form of knowledge than the one intended by the ST. For example, a North African reader might have issues decoding *I saw an emu*, which will not evoke the PERCEPTUAL frame of a large bird indigenous to Australia unless the reader has encountered the term or the bird prior to reading the text. On the other hand, the generic term *bird* will evoke images of different birds in the minds of different readers, depending on what is considered a generic bird in their SC.

1.4. The Premise of the Study: Comparing VISUAL Frames

The study is based on the assumption that each and every lexical unit in any given language possesses multiple layers of frame references, some of which, mostly the ones indicating denotative meaning, have parallels in the TL while some others, mostly the ones indicating connotative meaning, do not. The degree of (un)translatability may, therefore, be quantifiable by observing which TL terms possess a higher rate of similar frame references in SL, which aids in the evaluation of translated texts in terms of relative equivalence and the degree to which the Target Text (TT) audience receives similar information to that received by the Source Text (ST) audience.

The study uses data extracted from three modern Egyptian novels (*Aunt Safiyya and the Monastery*, *Taxi*, and *Zaat*) and their translations by three different translators. The different backgrounds of the Source Texts contribute to the richness of data and place it on a wider spectrum in terms of frame reference and translation. *Aunt Safiyya and the Monastery* is a modern classic set in Upper Egypt in the deep, often neglected South. It discusses unrequited love, honor, and vengeance against the backdrop of major events in Egyptian history. *Zaat*, a work of extremely dark humor chronicling the life of a lower-middle class Egyptian woman, also uses national headlines to frame the events of the novel, spanning across five decades and three presidents. *Taxi* is a part-Standard, part-Colloquial collection of stories largely based on the author's real-life conversations with taxi drivers in the Egyptian capital.

The methodology of the study may be summarized as follows:

1. Data is compiled from the three aforementioned texts, modern Egyptian novels and their translations by three different translators.

2. A detailed analysis of both the ST and the TT is performed based on the proposed frame typology, detailing both primary PERCEPTUAL→VISUAL frames and secondary SOCIAL, SITUATIONAL, GENERIC, or TEXTUAL frames.
3. Frame reference equivalence, or the lack thereof, is quantified by comparing TL frames to SL frames and calculating the percentage of SL translatability.
4. Untranslatable frames are assessed and other options with a higher rate of equivalence are considered, where necessary.
5. If none exist and the rate is still inadequate, supplementation by such means as footnotes and/or paraphrase is considered.

2. Data and Analysis: *Gallabiyya* and *Jilbaab*[1]

Much like any concept or entity exclusive to a specific culture, traditional clothes common in the Source Culture (SC) may cause a lexical/perceptual gap in the TT due to the reader's inability to visualize them. Measuring the success of a translation involving an SL term that does not exist in the TL involves the prior knowledge that perfect equivalence is not possible. The objective in this case is, therefore, not to achieve a one hundred percent rate of identical frame reference, which would be possible in other cases, but rather to reach a combination of the highest possible degree of similarity plus the lowest possible degree of interference of TL reference, since the latter may lead to the SL, and therefore the SC reference to be lost in translation, thus compromising the quality of the cultural experience of the TL reader. A *ǧal-labiy-ya* is a traditional rural garment worn by both men and women in Upper Egypt and the Delta of the Nile, in addition to the numerous variations worn in other Middle Eastern countries. The word *ǧal-labiy-ya* is a more colloquial term, the standard term being *ǧilbāb*. In Modern Standard Arabic, the word *ǧilbāb* has no frame references other than those associated with GENERIC→UPPER_EGYPTIAN/NILE_DELTA, PERCEPTUAL→VISUAL→CLOTHING_ITEM, and the appropriate MALE/FEMALE reference, depending on the person wearing it in the ST, in addition to a SOCIAL→SOCIAL_STATUS frame, since wearing a *ǧal-labiy-ya* is often associated with the unurbanized, which, within the subculture and the modern trend towards urbanization, might indicate social inferiority.

The treatment of the term in all three texts highlights three different approaches to transferring the VISUAL frame from the SL into the TL, especially given the secondary frames involved in the analysis of the term. The following sections highlight this treatment and how the frame reference congruence rate and the interference of TL frame references impact the success of the final product.

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[1] This is the spelling used in the TTs, a simple, non-academic transliteration asymmetrically employing both the voiced plosive velar consonant *g* characteristic of Egyptian Colloquial Arabic (ECA) and the voiced fricative post-alveolar consonant *ǧ* characteristic of Modern Standard Arabic (MSA) as seen in the translation of *Aunt Safiyya and the Monastery*. The asymmetry, therefore, mirrors that of the TT. In cases where it does not directly refer to the exact words used in the TTs, the in-text transcription used in the present work relies on the standardized voiced fricative post-alveolar consonant *ǧ* characteristic of transliterated Arabic in academic texts, which is based on Modern Standard Arabic (MSA).

2.1. Aunt Safiyya and the Monastery

Aunt Safiyya and the Monastery is set in Upper Egypt. This leads to many of its lexical units being cultural terms deeply rooted in the GENERIC→UPPER_EGYPT frame, which itself carries numerous sub-frames and is accompanied by a number of adjacent frames under the main frame. The term *ǧilbāb*, which the translator chooses to transliterate depending on the gender of the wearer, is a prime example of how misinterpreting one or more of the many sub-frames encoded by a certain term can result in misrepresenting the term in the TL and automatically causes the TL reader to decode a perceptually inaccurate, or completely different, image when reading the TT. As can be observed in the examples cited below, the translator uses *ǧilbāb* in reference to the garment when the wearer is male (1, 2, 3) and *ǧal-labiy-ya* when the wearer is female (4, 5, 6), even when the SL term is *ǧilbāb* in both cases:

(1)

وطللت أتابع في رعب حربي وهو يقاوم أربعة رجال ينزعون عنه **الجلباب** والصديري والفانلة حتى لم يبق عليه سوى سرواله الطويل.

Wa ẓalaltu ʔutābiʕu fī ruʕbin ḥarbī wa huwa yuqāwimu ʔarbaʕati riǧālin yanzaʕūna ʕanhu al-**ǧilbāba** waṣ-ṣedīrīy-ya wal fanil-la ḥatta lam yabqa ʕalayhi siwā sirwālahu aṭ-ṭawīl

Terrified, I continued to follow Harbi with my eyes as he struggled with the four men who were stripping him of his **gallabiyya**, vest, and undershirt until nothing was left but his long underpants.

(2)

ووقف أبي يتطلع في ذهول إلى ذلك كله حتى أنه لم يرني..ولسبب لا أدريه انحنى يرفع من فوق الزرع طربوش البك الذي تدحرج بعيداً وراح ينفضه ويمسحه بكم **جلبابه** وهو يكرر "لا حول ولا قوة إلا بالله".

Wa waqafa ʔabī yataṭal-laʕu fī ḏuhūlin ʔilā ḏālika kul-lihi ḥat-ta ʔan-nahū lam yaranī..wa li-sababin lā ʔadrīh inḥanā yarfaʕu men fawqi az-zarʕi ṭarbūshi al-bīk al-laḏī tadaḥraǧa baʕīdan wa rāḥ yanfuḍuhu wa yamsaḥuhu bi-kum-mi **ǧilbābahu** wa huwa yukar-rir "lā ḥawla walā quw-wata il-lā bil-lāh"

My father stopped, and stared in horror at the scene before him. He didn't even see me. I don't know why, but he bent down and lifted up the bey's tarbush, which had rolled away into the flowers. He stood brushing it off and wiping it with the sleeve of his **gallabiyya**, saying over and over, "There is no strength or power, except in God."

(3)

وذات مرة رأيت حربي وقد خلع **جلبابه** وأمسك فأساً حين كان بشاي يعزق الأرض لكي يعزق معه

Wa ḏāta mar-ratin raʔaytu ḥarbī wa qad xalaʕa **ǧilbābahu** wa amsaka faʔsan ḥīna kāna bishāy yaʕzaqu al-ʔarḍa likay yaʕzaqa maʕhu

One day when Bishai was working in the field, I saw that Harbi had removed his **gallabiyya** and picked up a hoe in order to help him.

(4)

وفي الصباح كنت ألبس **جلبابًا** جديداً وطاقية جديدة وحذاء جديداً. وربما أيضاً لبست البدلة التي أذهب بها إلى المدرسة بعد أن تكويها أمي. أخرج مع أبي، أتخلف عنه خطوة واحدة. يعانق هو من يلقاه في الطريق ويلقي عليه بتحية العيد. لا يلبس **جلبابه** في هذا اليوم، بل يلبس جبة وقفطاناً مكويين عند كواء مخصوص في الأقصر يستخدم مكوة الرجل.

Wa fī aṣabāḥi kunto ʔalbasu **ǧilbāban** ǧadīdan wa ṭāqiy-yatan ǧadīda wa ḥiḍāʔan ǧadīdan. Wa rub-bamā ʔayḍan labistu al-badlata al-latī ʔaḍhabu bihā ilā al-madrasati baʕda ʔan takwīhā ʔum-mī. ʔaxruǧu maʕ ʔabī, ʔataxal-lafu ʔanhu xutwatan wāḥidatan. yuʕāniqu huwa man yalqāhu fī aṭ-ṭarīqi wa yulqī ʕalayhi bitaḥiy-yati al-ʕīd. Lā yalbasu **ǧilbābahu** fī hāḍa al-yawm, bal yalbasu ǧub-batan wa qifṭānan makwīyayni ʕinda kaw-waʔin maxṣūṣin fī al-ʔaqṣur yastaxdimu makwati al-riǧl

In the morning I was wearing a new **gallabiyya**, skullcap, and shoes. I may also have been wearing the suit I went to school in, freshly ironed by my mother. I went out after my father, staying one step behind him. He embraced everyone he met in the street and gave him the traditional holiday greeting. On this day he wasn't wearing his **gallabiyya**. Instead he wore a jubbah and caftan, which had been ironed at a presser's shop in Luxor specializing in men's garments.

(5)

لا أتحدث عن أنها خلعت الفساتين التي كانت تلبسها في السراي وبدأت تلبس مثل بقية نسائنا **الجلباب** الطويل الأسود ومن فوقه الخلالية حين تخرج.

Lā ʔataḥad-daṯu ʕan ʔan-nahā xalaʕat al-fasātīn al-latī kānat talbasuhā fī al-sarāy wa badaʔat talbasu miṯla baqiy-yati nisāʔana al-**ǧilbāba** al-ṭawīla al-ʔaswada wa men fawqihi al-xilāliy-yati ḥīna taxruǧu

I'm not talking about the fact that she stopped wearing the dresses she had worn at the palace and began wearing, like the rest of our women, the long, black **jilbaab** with the peasant robe over it, any time she went out.

(6)

لا أعرف تفسيراً لما حدث. ولكن خطوطاً كالتجاعيد بدأت تظهر في وجهها وفي رقبتها. ولم تعد تكتفي **بالجلباب** والطرحة حين تكون في البيت بل كانت تربط أيضاً منديلاً عريضاً أسود حول رقبتها.

Lā ʔaʕrifu tafsīran limā ḥadaṯ. Wa lākin xuṭūṭan kat-taǧāʕīdi badaʔat taẓharu fī waǧhihā wa fī raqabatihā. Wa lam taʕud taktafī bil-**ǧilbābi** wa al-ṭarḥati ṭīna takūnu fil bayti bal kānat ʔayḍan tarbuṭu mindīlan ʕarīḍan ʔaswadan ḥawla raqabatihā

I know no explanation for what happened. But lines, like wrinkles, began to appear on her face and neck. She no longer wore only the **jilbaab** and the veil when she was at home, but took to wrapping a wide black kerchief around her neck as well.

The issue here goes beyond the unjustified distinction in the TT between *ǧilbāb* and *ǧal-labiy-ya*. Although in the SL *ǧal-labiy-ya* and *ǧilbāb* are used interchangeably to describe the same type of long, flowing garment for both men and women, *ǧilbāb* has also taken on a more religiously-inclined nuance as the Islamic dress for women. This is the nuance which has been transferred into English, where the term *jilbaab* (or *jilbab*) has become widely accepted as the Islamic dress code for women due to the fact that the term was mentioned in the Quran in the context of women's modest dress. The term can be found in Muslim media targeting English-speaking Muslims, such as pamphlets and websites, as well as traditional Muslim

jurisprudence texts, both modern and ancient, and publications discussing Muslim lives and issue in general (see: Renard (2012), Emon et al. (2012), O'Hagan (2006), Merali (2006), Ameli and Merali (2004), Abdul Rahman (2003), Al-Fauzan (2003), Samiuddin & Khanam (2002), among others).

The fact that the translator of *Aunt Safiyya and the Monastery* chooses to use *jilbaab* for the dress worn by the female protagonist is problematic. It gives the dress a spiritual sense that does not exist in the ST, changing the frame reference from PERCEPTUAL→VISUAL→WOMEN'S_DRESS→UPPER_EGYPT and GENERIC→UPPER_EGYPTIAN_WOMAN to PERCEPTUAL→VISUAL→WOMEN'S_DRESS_MUSLIM, with the secondary frame references SOCIAL→INSTITUTIONAL→MODEST and GENERIC→MUSLIM_WOMAN. Whereas the ST terms *ǧal-labiy-ya* and *ǧilbāb* simply and interchangeably refer to the traditional dress worn by Upper Egyptian and Delta men and women, regardless of what faith they practice, the TT evokes a specific religious affiliation which does not exist in the ST. Besides the transliteration, the translator also uses the following glossary entries:

Table 1: *Glossary Entries from the translated text of* Aunt Safiyya and the Monastery

gallabiyya **long robe-like garment, traditionally worn by Egyptian peasant men. In winter, other clothes might be worn underneath, including a pair of long underpants.**
jilbaab **long garment similar to a gallabiyya**

The entries inaccurately define the *ǧal-labiy-ya* as a garment worn exclusively by men, which may be true in other cultures where the *ǧal-labiy-ya* is common, such as Sudan or Somalia, but not in Egypt, where the term applies to both genders, whereas it does not identify the *ǧilbāb* as exclusive to women, although the usage within the translation of the text assumes this stance.

The frame congruence issue here is that the garment in question does not exist in the TL in the same manner that it does in the SL, which leaves a lexical/perceptual gap in the TT. Instead, the TL term used in reference to the garment has a radically different frame reference, which fills the void with the wrong frame reference and an inaccurate footnote, not only removing the appropriate reference, but also transplanting a misleading alternative. The frame reference of the SL, therefore, does not correspond to that of the TL, which leads to a quantifiably unsuccessful translation (Fig. 2):

Table 2: *Frame Congruence Analysis for* ğilbāb *in* Aunt Safiyya and the Monastery

SL	Frame Reference	TL	Frame Reference	Congruence
ğilbāb	PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→MAN/WOMAN	*gallabiyya*	PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→MAN	-
	PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→UPPER_EGYPT	(footnote)	PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→UPPER_EGYPT	+
	-	*jilbaab*	PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→WOMAN	-
	-		PERCEPTUAL→VISUAL→ WOMEN'S_DRESS_MUSLIM	-
	-		SOCIAL→INSTITUTIONAL→ MODEST	-
			GENERIC→MUSLIM_WOMAN	-

The issue may be quite simply resolved by unifying the TL term in the same manner that was intended in the SL, either through the use of *ğal-labiy-ya* to avoid the religious connotations that come with *ğilbāb*, or through the use of *ğilbāb* in addition to a more detailed footnote explaining the difference. Since the events take place in a part of the world where the term *ğal-labiy-ya* covers the garment worn by both genders, regardless of religious affiliation, it may be safer to transliterate both as *ğal-labiy-ya* and include an explanatory footnote to avoid adding any frame references not present in the ST.

2.2. Zaat

Zaat, on the other hand, references different types of *ğal-labiy-ya* (or *ğilbāb*, since the author uses them interchangeably), some of which have more social than geographical indications. The novel, which takes place in a strictly urban setting, uses the term *ğal-labiy-ya* to refer to a variety of garments:

(a) Loose garments worn by men and women at home. The men's garment resembles the traditional *ğal-labiy-ya* worn by men in the Delta and Upper Egypt, except it could also have short sleeves and more embellishments.

(b) White, loose garments, though less loose than the traditional Egyptian *ğal-labiy-ya*, different varieties of which are worn by men in Gulf states, also known as a *ṯawb*. In this particular text, the men who wear such garment are ones who assume a more religious air, usually a factitious one.

(c) A more ambiguous reference to a woman wearing a *ğilbāb* at a hospital, although it is hard to discern from the context whether the garment represents where the woman is from or her socioeconomic status. In an urban setting, a woman wearing a *ğal-labiy-ya/ğilbāb* outside the house is either expressing her geographical identity as belonging to the Delta or Upper Egypt, or belongs to a lower socioeconomic class. The definitions overlap since,

in the deeply stratified SC, an individual from Upper Egypt or the Delta who is introduced into an urban setting is, more often than not, regarded as being socially inferior, regardless of economic status.

Although the author uses the term *ǧal-labiy-ya* and *ǧilbāb* interchangeably in the ST, the translator uses *ǧal-labiy-ya* for both, possibly to avoid activating the RELIGIOUS frame observed in the previous section. However, this is done without providing an explanation of the term, which is not part of the English lexicon or the general awareness of the TL reader. This adds the problem of visualization blockage to the already existing issue of the TL reader's inability to appreciate the hidden social meaning of the garment in this particular text due to its complexity and the expected lack of profound knowledge of the SC, although it may be argued that the garment may be loosely visualized based on the context. Additionally, unlike *Aunt Safiyya and the Monastery*, where a *ǧal-labiy-ya* is an expected garment in its natural environment, which was explained, albeit inadequately, at the beginning of the text in a glossary entry, *Zaat*'s urban setting provides the optimal background for the author's use of the *ǧal-labiy-ya* as a social device, adding a SOCIAL frame component to the preexisting PERCEPTUAL one. It must, therefore, be noted that the following analysis of the examples from *Zaat* entails the resolution of the PERCEPTUAL frame blockage in the TT by providing a footnote or a glossary entry before the text describing what a *ǧal-labiy-ya* looks like, the latter being more practical due to the recurrence of the term throughout the text.

The success of the translation of the term *ǧal-labiy-ya/ǧilbāb* in *Zaat*, therefore, is dependent on the addition of supplementary information in the form of a footnote or in-text explanation of the garment in order to activate the SOCIAL frame and augment the PERCEPTUAL frame in order to resolve the semantic void seen in the figures below.

The first example, a description of a female patient at an impoverished inner city state-run hospital, has frame references that reflect SOCIAL indications along with the PERCEPTUAL frames, namely SOCIAL→SOCIAL_STATUS→INFERIOR and GENERIC→LOWER_SOCIOECONOMIC_STATUS (based on a combination of the garment and the settings), alongside the main PERCEPTUAL frame, PERCEPTUAL→VISUAL→WOMAN'S_DRESS:

(1)

امرأة في **جلباب** أسود وشبشب، معصوبة الرأس بمنديل، انتشرت بقعة داكنة اللون حول صدغها الأيمن ورقبتها [...]

[...] ʔimraʔatun fī **ǧilbābib** ʔaswadin wa shibshib, maʕṣūbati al-raʔsi bi-mindīl, ʔintašarat buqʕatun dākinatun ḥawla ṣadġihā al-ʔayman wa raqabatuhā

[...] a woman in a black **gallabiya** and flip-flops with a scarf tied around her head, and a dark blotch extending over her right temple and neck

Table 3: *Frame Congruence Analysis for* ğilbāb *in Zaat (Example 1)*

SL	Frame Reference	TL	Frame Reference	Congruence
ğilbāb	PERCEPTUAL→VISUAL→ WOMAN'S_DRESS	*gallabiyya*	PERCEPTUAL→VISUAL→ WOMAN'S_DRESS (from context not lexical unit)	+
	SOCIAL→SOCIAL_STATUS→INFERIOR		-	-
	GENERIC→LOWER_SOCIOECONOMIC_ STATUS		-	-

In the next example, however, the social nuance is more subtle, as the image of the winceyette *ğal-labiy-ya* may be more commonly associated in the SC background of the ST reader familiar with Egyptian culture in the 1980's with a lower to lower-middle class background, activating the frame SOCIAL→SOCIAL_STATUS→INFERIOR and GENERIC→ LOWER_SOCIOECONOMIC_STATUS. This is a frame that was easier to decode in the previous example based on the setting of the inner city hospital, which facilitates the activation of the LOWER_SOCIOECONOMIC_STATUS frame. The TT reader, on the other hand, is not able to invoke the same image for lack of SC background. This leads to a secondary SOCIAL frame void but not a major primary VISUAL one, as the context helps the TT reader recognize the garment as something resembling a housecoat.

However, the overall frame of the passage when Zaat visits her college friend Safiya, whose descent into poverty and squalor in her older years is decipherable throughout the entire scene, makes up for the missed subtle reference by having the same indication SOCIAL→SOCIAL_STATUS→INFERIOR, on which it elaborates with the details of Safiya's lower socioeconomic conditions:

(2)

مناسبة أخرى لمزيد من قبلات الوجنات ولتأمل آثار الزمن: الخيوط البيضاء في الشعر الملموم، بشائر الجيوب أسفل العينين، الثديين المتهدلين تحت **الجلابية** الكستور، بالإضافة إلى شئ آخر في نظرة العينين أو مسحة الوجه أو لون البشرة، لا علاقة لها بصفية القديمة، أو لعلها الحركة البطيئة المتمهلة لمن كانت تمشي وكأنها تقفز.

Munāsabatun ʔuxrā li-mazīdin min qublāt al-waǧnāti wa li-taʔam-muli ʔāṯāri al-zaman: al-xuyūṭ al-bayḍāʔ fi aš-ṣaʕri al-malmūm, bašāʔiri al-ǧuyūbi asfal al-ʕaynayn, aṯ-ṯadyayni al-mutahad-dilayni taḥta al-**ǧal-labiy-ya** al-kastūr, bil-ʔiḍāfati ʔilā šayʔin ʔāxarin fī naẓrati al-ʕaynayn ʔaw masḥati al-waǧhi ʔaw lawn al-bašara, lā ʕilāqata lahā bi-ṣafiy-ya al-qadīma, ʔaw laʕal-lahā al-ḥaraka al-baṭīʔa al-mutamah-hila li-man kānat tamšy wa-kaʔan-nahā taqfiz

Another excuse for more kisses on the cheeks, and to contemplate the effects of time: the white strands in the tied-back hair, the signs of impending bags under the eyes, the sagging breasts under the winceyette **gallabiya**, as well as something else in the eyes, or the expression on her face, or the color of her skin that had nothing to do with the Safiya of long ago. Perhaps it was the slow deliberate movements of one who used to walk with a healthy spring in her step.

Table 4: *Frame Congruence Analysis for* ğal-labiy-ya *in* Zaat *(Example 2)*

SL	Frame Reference	TL	Frame Reference	Congruence
ğal-labiy-ya	PERCEPTUAL→VISUAL→ WOMAN'S_DRESS	*gallabiyya*	PERCEPTUAL→VISUAL→ WOMAN'S_DRESS (from context not lexical unit)	+
	SOCIAL→SOCIAL_STATUS→INFERIOR		-	-
	GENERIC→LOWER_SOCIOECONOMIC_ STATUS		-	-

On the other hand, another type of *ğal-labiy-ya* in *Zaat* comes with different frame references, PERCEPTUAL, GENERIC, and SOCIAL. This *gallabiyya*, a more form-fitting design commonly called *ṯawb* and worn by men in the Gulf, is used in this text as a marker of the neo-religious wave of Egyptians returning from the Gulf with imported ideologies and sensibilities, or otherwise as a sign of religiousness, be it authentic or factitious. These instances carry the main perceptual frame PERCEPTUAL→VISUAL→MEN'S_GARMENT→GULF, as well as the secondary frame GENERIC→RELIGIOUS (in the case of the first example) and SOCIAL→ SOCIAL_STATUS→SUPERIOR and GENERIC→PRETENTIOUS (in the second example). The non-VISUAL frames are harder to translate, in which case the translator will rely on the TT reader's understanding of the underlying meaning of the text as a whole, rather than the interpretation of the term in isolation:

(3) a.

رجال ملتحون في **جلاليب** بيضاء ناضعة وصنادل جلدية تبرز منها أصابع أقدامهم العارية وتتدلى المسابح من أيديهم

Riğālun multaḥūn fī **ğalalībin** bayḍāʔin nāṣiʕati al-bayāḍ wa ṣanādilin ğildiy-yatin tabruzu minhā ʔaṣābiʕa ʔaqdāmihim al-ʕāriya wa tatadal-lā al-masābiḥa min ʔaydīhim

Bearded men in gleaming white **gallabiyas** and leather sandals with their bare toes sticking out, prayer beads dangling from their hands [...]

b.

على وجه التحديد، استؤنفت المقاطعة في أعقاب زيارة من ذات وعبد المجيد لابن عمته، في شقة أمه المتواضعة بأحد أزقة السيدة، بمناسبه عودته من التدريس في السعودية. استقبلهما في **جلابية** سعودية ناصعة البياض ورصانة واعتداد جديدين عليه (..)

ʕalā waǧhi al-taḥdīdi, estoʔnifat al-muqāṭaʕatu fī ʔaʕqābi ziyāratin men ḏāt wa ʕabdilḥamīdi l-ibni ʕam-matihi, fī šaq-qati ʔum-mihi al-mutawādiʕa be-ʔaḥadi ʔaziq-qati al-say-yida be-munāsabat ʕawdatihi min al-tadrīsi fī as-suʕūdiy-ya. Istaqbalahumā fī **ğal-labiy-yatin** saʕūdiy-yatin nāṣiʕat al-bayāḍ wa raṣānatin wa iʕtidādin ğadīdayni ʕalayh [...]

To be precise, the boycott was resumed after a visit by Zaat and Abdel Maguid to his cousin, who lived with his mother in a humble flat in a small alley in Sayyeda Zeinab, on the occasion of his return from Saudi Arabia where he had been working as a teacher. He greeted them in a gleaming white Saudi **gallabiya**, and with a composure and confidence that he had not had before.

Table 5: *Frame Congruence Analysis for* ğal-labiy-ya *in* Zaat *(examples 3a and 3b)*

SL	Frame Reference	TL	Frame Reference	Congruence
ğal-labiy-ya	PERCEPTUAL→VISUAL→ MEN'S_GARMENT→ GULF	*gallabiyya*	PERCEPTUAL→VISUAL→GARMENT (from context not lexical unit)	+/-
	GENERIC→RELIGIOUS (3.A)		Context	+/-
	SOCIAL→SOCIAL_STATUS→SUPERIOR (3.B.)		Context	+/-

As can be surmised from the data in the chart, the interpretation of the PERCEPTUAL, as well as the SOCIAL frame in these two examples relies largely on context rather than the inherent frame reference of the lexical unit itself, in which case the congruence rate depends on whether the TT reader succeeds at capturing the nuances of the text without further explanation on the part of the translator.

A third type of *ğal-labiy-ya* in *Zaat* is the doorman's display of his regional origins in the form of a full Upper Egyptian outfit, including the Upper Egyptian ğ*al-labiy-ya*. In the ST, the term بلدياته *baladīy-yātuh*, meaning *compatriot* (which could be used in reference to any region in Egypt, but is more commonly used in reference to Upper Egypt), along with the general description of the man's outfit, provide a subtle hint to the region from which he comes, hence providing a context for the *ğal-labiy-ya*. In the TT, the translator avoids the subtlety by transforming the hints into an open statement that the man and his companions were from Upper Egypt, which decodes the frame reference GENERIC→UPPER_EGYPTIAN_MAN:

(4)

فعندما وصل إلى منزله بعد الظهر، وجد عم صادق البواب في كامل ملابسه الرسمية (لبدة الرأس واللفاعة البنية والحذاء ذو الرقبة **الجلابية** الصوفية السابغة بفتحة الصدر الكاشفة عن صديري من القصب المقلم)، مقتعداً دكته ومن حوله ثلاثة منه عندما رجال متباينيي الأعمار، في ملابس مماثلة، يبدو من هيئتهم ونظراتهم المتسائلة أنهم من بلدياته، وهو ما تأكد قرأهم السلام.

Fa-ʕindamā waṣala ʔilā manzilihi baʕda al-ẓuhri, waǧada ʕamm ṣādiq al-baw-wāb fī kāmili malābisihi ar-rasmiy-ya (libdati ar-raʔsi wa al-lifāʕati al-bun-niy-ya wal-ḥiḏāʔi ḏū ar-raqabati wal-**ğal-labiy-yati** aṣ-ṣūfiy-yati as-sābiġati bi-fatḥati aṣ-ṣadri al-kāšifati ʕan ṣidīriy-yin min al-qaṣabi al-muqal-lami), muqtaʕidan dik-katihi wa men ḥawlihi ṯalāṯati riğālin mutabāyini al-ʔaʕmār fī malābisin mumāṯila yabdū min hayʔatihim wa naẓarātihim al-mutasāʔila ʔan-nahum min baladiy-yātih, wa huwa mā taʔak-kada min-hu ʕindamā qaraʔahum as-salām.

For when he arrived home that afternoon, he found Amm Sadeq the bawwab dressed in his official regalia (felt skullcap, brown scarf, boots, and long wide woolen **gallabiya** open at the chest to reveal a striped waistcoat underneath) sitting on his bench with three men of different ages wearing similar clothes standing around him. Their appearances and questioning, bewildered expressions indicated that they too were from Upper Egypt and only recently arrived in the city. This was confirmed when Abdel Maguid gave the Islamic greeting.

Table 6: *Frame Congruence Analysis for* ğal-labiy-ya *in* Zaat *(example 4)*

SL	Frame Reference	TL	Frame Reference	Congruence
ğal-labiy-ya	PERCEPTUAL→VISUAL→ ETHNIC_GARMENT→MAN	*gallabiyya*	PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→MAN (Context)	+
	PERCEPTUAL→VISUAL→ ETHNIC_GARMENT→UPPER_EGYPT		PERCEPTUAL→VISUAL→ETHNIC_ GARMENT→UPPER_EGYPT (in-text explanation)	+

According to the frame congruence chart, this may be considered the most successful translation of the term *ğal-labiy-ya* in the TT, since it manages to convey the full range of ST frame references using both contextual clues and in-text explanation.

2.3. Taxi

Taxi, a novel based on true events, recounts the author's numerous taxi rides in Cairo and his conversations with the drivers, reflecting everything from the Egyptian socio-political climate in the twenty-first century to the drivers' personal anecdotes and views on soccer and marriage. Accordingly, the setting of the text, just like *Zaat*, is almost exclusively urban except for the one mention of the author's trip to a rural community where he encounters a woman in a *ğal-labiy-ya*. The translation of the SL term is treated in a third way, which is translating the description of the garment rather than its name, thus transferring the full range of frame reference using both in-text explanation and contextual clues:

ومرت من جانبي امرأة جميلة تلبس **جلابية** قروية ويتدلى من أذنيها قرط من المركز.

Wa mar-rat bi-ğānibī imra?atun ğamīlatun talbasu ğal-lābiy-yatan qarawiy-yatan wa yatadal-lā min ?uḍunayhā qirṭun min al-markazi

A beautiful woman walked past me wearing **a long village-style dress** and pendant earrings bought from the nearest provincial centre hanging from her ears.

Table 7: *Frame Congruence Analysis for* ğal-labiy-ya *in* Taxi

SL	Frame Reference	TL	Frame Reference	Congruence
ğal-labiy-ya	PERCEPTUAL→VISUAL→ETHNIC_GARMENT→WOMAN	*gallabiyya*	PERCEPTUAL→VISUAL→ETHNIC_GARMENT→WOMAN	+
	PERCEPTUAL→VISUAL→WOMEN'S_GARMENT→EGYPTIAN_VILLAGE		PERCEPTUAL→VISUAL→WOMEN'S_GARMENT→EGYPTIAN_VILLAGE	+
	GENERIC→EGYPTIAN_PEASANT_WOMAN		GENERIC→EGYPTIAN_PEASANT_WOMAN	+

This provides the reader with a chance to visualize the dress worn by the woman as a traditional village-style garment and, instead of leaving the TT reader wondering what a *ğal-labiy-ya* was, it would be possible to imagine something corresponding to the frame PERCEPTUAL→VISUAL→WOMEN'S_GARMENT→EGYPTIAN_VILLAGE and GENERIC→EGYPTIAN_PEASANT_WOMAN.

3. Conclusion

The use of semantic frames to quantify the accuracy and success of a translation is a simple and convenient method to compare the ST and the TT in terms of the number of semantic frames encoded in each and the number of frames the TL reader is capable of decoding based on the TT. The more congruent the ST and TT semantic frames are, the more accurate the outcome is. Utilizing this method by translators and editors will increase the chance of producing a TT that is closer to the intended meaning of the ST, which guarantees a richer, more colorful experience for the TL reader, who is now capable of decoding the same message in the TT that the SL reader can decode in the ST.

This is especially important in the case of VISUAL frames, which play a pivotal role in the transmission of the wide array of elements forming a scene in a narrative text, helping the TL reader visualize the events and the elements which constitute the scene. Although inaccuracy is transmitting VISUAL frames may, at times, seem trivial, especially compared to more extensive frames, such as SOCIAL or GENERIC frames, the extent to which it impacts the TL reader's understanding of the TT varies depending on the extent of inaccuracy and the importance of the description in the context of the text.

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