

*LingBaW*  
*Linguistics Beyond and Within*

**VOLUME 2 (2016)**

*LingBaW*  
*Linguistics Beyond and Within*

VOLUME 2 (2016)

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e-ISSN: 2450-5188



**PUBLISHER:**

The John Paul II Catholic University of Lublin  
Al. Raławickie 14  
20-950 Lublin, Poland

**PUBLISHING HOUSE:**

KUL University Press  
ul. Konstantynów 1H  
20-708 Lublin, Poland  
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# Intensional profiles and different kinds of human minds. “Case studies” about Hungarian imperative-like sentence types

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## Abstract

The paper offers such description of some imperative-like sentence types in potential well-formed Hungarian utterances which includes a parallel representation of the linguistically encoded intensional profiles of the sentence types and actual information states in potential interlocutors' minds. In our representational dynamic pragmasemantics framework *ReALIS*, we demonstrate the intensional profiles of the five basic and two “fine-tuned” sentence types as members of a system enabling addressers' of utterances to express their beliefs, desires and intentions concerning the propositional content of the given utterances as well as the addressees' and other people's certain beliefs, desires and intentions (concerning the propositional content, too, or each other's thoughts). We also provide “case studies” in which actual beliefs, desires and intentions in potential interlocutors' minds are compared to the linguistically encoded intensional profiles of Hungarian imperative-like sentence types. In this context, the listener's task is to calculate the speaker's intentions (and hidden motives) on the basis of the mismatches that this comparison reveals. The paper concludes with an insight into our attempts to model the mind of individuals living with Autism Spectrum Disorder. This latter subproject is relevant since our framework provides solutions to pragmaticosemantic phenomena “at the cost” of undertaking the complex task of actually representing the structure of the human mind itself – which is not impossible but requires an adequate decision of the level of abstraction and the components to be used.

**Keywords:** discourse representation/markers, mind representation, dynamic pragmatics, autism

## 1. Introduction

This paper is part of a series of papers in which we describe in our discourse-semantic framework *ReALIS*<sup>1</sup> the intensional profiles of the basic (Hungarian) sentence types and those of sentence types modified by peculiar stress patterns, discourse particles and what are referred to in Leiss (2014: 50) as ATMM-categories (Aspect, Tense, Mood, and different kinds

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<sup>1</sup> See Alberti (2009, 2011, 2012), Alberti and Károly (2012), Alberti and Kleiber (2012, 2014), and Alberti, Vadász and Kleiber (2014).

of Modality).<sup>2</sup> This part offers such description of some imperative-like<sup>3</sup> sentence types in potential well-formed Hungarian utterances which includes a parallel representation of the linguistically encoded intensional profiles of the sentence types and actual information states in potential interlocutors' minds – in harmony with the distinguished topic of the 2015 Lublin conference *Mind, language, society: towards a unified theory of language structure and use*. The paper can thus be regarded as an immediate continuation of Alberti, Vadász and Kleiber's (2014) analysis on "ideal and deviant interlocutors."

ℜeALIS can be characterized as a discourse-representation-based<sup>4</sup> formal semantic theory. It is intended to make it possible to evaluate, through pattern matching between linguistic forms and world models (Dowty *et al.* 1981), not only the propositional content of sentences, but – as a generalization of pattern-matching-based interpretational calculus – also all pragmatic factors which can be captured in Oishi's (2014) Austinian (1975/1962) approach essentially as follows (see also Labinaz and Sbisà's (2014) program). It is to be evaluated from clause to clause whether the speaker is acting legitimately, sincerely, and/or adequately, while, in the on-going discourse, (i) playing the addresser's role of the expositive speech act (encoded linguistically in the given utterance) and (ii) giving the listener the addressee's role in the same speech act and (iii) qualifying the speech situation to be a licensed context of the given speech act. The sum of acts (i-iii) will be referred to as *Oishi-matching*.

The paper is organized as follows. Further information will be given on ℜeALIS in section 2. Section 3 sketches the intensional profiles of the system of sentence types assumed traditionally as the five basic sentence types in Hungarian and those of two sentence types based on the basic imperative-like one but "fine-tuned" by a discourse particle and by a special intonation. Section 4 provides "case studies" in which actual beliefs, desires and intentions in potential interlocutors' minds are compared to the linguistically encoded intensional profiles of Hungarian imperative-like sentence types. It is demonstrated in section 5 that ℜeALIS actually intends to account for the functional structure of the human mind, by presenting how ℜeALIS can account for a few chief criteria of autism. A short summary concludes the paper (section 6).

## **2. ℜeALIS: the theory which offers the same kind of formal representation for linguistically encoded expositive speech acts and for actual beliefs, desires, intentions and other kinds of fictions in potential interlocutors' minds**

It was the task of other papers<sup>5</sup> to enumerate arguments for ℜeALIS and against the "Kripke/Montague-inspired possible-worlds semantics," as this latter is referred to by Pollard

<sup>2</sup> On this latter topic, see Farkas and Ohnmacht (2012), Alberti, Dóla and Kleiber (2014), and Alberti and Nóthig (2015).

<sup>3</sup> In Gärtner and Gyuris's (2012) cross-linguistic approach, it is claimed that "what has been called 'imperative' in Hungarian is actually some kind of 'proto-imperative'" (or proto-imperative-hortative, with Subjunctive morphology on verbs (Kaufman 2012: 7)).

<sup>4</sup> Such theories belong to this family as DRT (Kamp and Reyle 1993, van Eijck and Kamp 1997, Kamp *et al.* 2011), UDRT (Reyle 1993), SDRT (Asher and Lascarides 2003, Schlangen *et al.* 2003), PDRT (Venhuizen *et al.* 2015).

<sup>5</sup> The relevant papers are: Alberti and Kleiber (2012), Alberti (2012), and Alberti and Nóthig (2015).

(2007), according to whom “the idea of taking worlds as a primitive of semantic theory is a serious misstep.” He calls it “a framework known to have dubious foundations” (Pollard 2007: 2).

The only stance we should sketch here because of the special topic of this paper is Judge’s (2014: 222) opinion, who works in the standard, Kratzerian (e.g., 2012) framework of modality (based on the Kripke/Montague-inspired possible-worlds semantics); she designates the pertinent relationship between formal semantics and pragmatics as follows: “...ideally a linguistic theory will account for how natural language works in real conversational contexts, and not be restricted to only accounting for logical output, (not least because extricating the core/logical meaning of a linguistic expression from the contributions of context is highly problematic). Indeed, modality is an area of semantics where understanding the systematic interactions of context and underlying form is particularly pertinent.”

In *ReALIS*, the (pragmatic) generalization of pattern-matching-based interpretational calculus, referred to in section 1, is possible. It is not only the discourse representation of utterances that is carried out by means of Kamp’s well-known partially ordered “boxes of information” but also information states of human minds are represented in this way, on the basis of the principle of lifelongness, according to which the human mind, permanently fed by discourses, can also be modeled as a gigantic discourse representation structure (Alberti 2000). A proposition, thus, can be evaluated not only in the world model, in order to decide whether it is true or false, but also against the current content of the speaker’s information state, on the basis of which it turns out whether the speaker has told the truth or a lie or probably bluffed<sup>6</sup> (Alberti, Vadász and Kleiber 2014), as well as against the listener’s information state, or against the listener’s mental model constructed by the speaker. It is this latter evaluative comparison, for instance, on the basis of which it turns out whether the listener gets relevant information, at least according to the speaker’s expectations (Alberti and Kleiber 2014), and hence the listener can be considered to serve as an ideal addressee.

All in all, the way in which information is represented in *ReALIS* is not only *lifelong* (Alberti 2000) but also *reciprocal* (Alberti 2005); this serves as a basis for the name *Reciprocal and Lifelong Interpretation System* and the abbreviation *ReALIS*.

The crucial property of *ReALIS* that ensures its descriptive and explanatory adequacy is that a clause performed in an on-going discourse is assumed to convey a piece of information that uniformly belongs to an *intensional profile*, which is an element of the set  $\mathcal{P}((M \times \mathcal{P}(I) \times R \times T \times \mathcal{P}(P))^*)$ : the power set of the set of finite sequences of a particularly specialized set of *level labels*. The clause is to be interpreted against the (possible-world-like but finite) components of this intensional profile, called *worldlets* in *ReALIS*, in order to obtain its truth conditions and other semantic and/or pragmatic well-formedness conditions in the given context.

M is the set of modal labels that say whether a piece of information serves to someone as some kind of belief (B), or desire (D), or intension (I). Set I provides degrees for expressing the intensity of the given modality, from “maximum” (M) up to “some” (s). Associated with the modality B, for instance, this scale ranges from sure knowledge to weak conjecture. The

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<sup>6</sup> In the latter two cases, the speaker is playing the addresser’s role insincerely, deceitfully, illegitimately.



*muss/soll/will* triplet of German epistemic modal auxiliary verbs can be regarded as evidence for the existence of at least three non-maximal degrees (Leiss 2014: 53); deciding the linguistically relevant number of degrees, however, requires much future research. The power set  $\mathcal{P}(I)$  of  $I$  is used in the formula above because certain modal words may be associated with more than one degree of intensity of a given modality. Set  $R$  is responsible for referring to the host of the given piece of information, who can primarily be the addresser (AR) or the addressee (ae). Worldlets are also assigned polarity values, which are members of the eight-element powerset  $\mathcal{P}\{+, -, 0\}$  of the two traditional polarity values “true” (+) and “false” (–) and a not so accustomed value “non-specified” ( $P=\{+, -, 0\}$ ). The Kleene-star in the formula above manifests the “reciprocal” character of  $\mathfrak{ReALIS}$  by offering, instead of quintuples of the above-discussed labels, finite series of such quintuples. Finally, the power set symbol in the initial position of the formula requires some explanation. The point is that a piece of information can simultaneously be associated with more series of worldlet labels (in the human mind), which can be called a “prism effect”.

Section 3 will provide a detailed illustration, including two visualized representations consisting of the aforementioned Kampian “boxes of information”.

### 3. The five basic intensional profiles and two further profiles

The five columns in the table below show five intensional profiles (see section 2), which are claimed by Alberti and Kleiber (2014) to serve as a coherent system of (the) five basic profiles (in Hungarian).

**Table 1:** *The intensional profiles of the five sentence types assumed traditionally*

Declarative	Imperative	Interrogative	Optative	Exclamative
$\langle B, M, AR, \tau, + \rangle$	$\langle B, M, AR, \tau, - \rangle$	$\langle B, M, AR, \tau, 0 \rangle$	$\langle B, M, AR, \tau, - \rangle$	$\langle B, M, AR, \tau, + \rangle$ $\langle B, M, AR, \tau^-, 0 \rangle$
$\langle B, gr, AR, \tau, + \rangle$	$\langle B, gr, AR, \tau, + \rangle$	$\langle B, gr, AR, \tau, + \rangle$		
$\langle B, M, ae, \tau, 0 \rangle$	$\langle B, M, ae, \tau, - \rangle$	$\langle B, M, ae, \tau, +- \rangle$		
$\langle B, gr, AR, \tau, + \rangle$	$\langle D, M, AR, \tau, + \rangle$	$\langle D, M, AR, \tau, + \rangle$	$\langle D, M, AR, \tau, + \rangle$	$\langle D, M, AR, \tau, +- \rangle$
$\langle D, gr, ae, \tau, + \rangle$		$\langle B, M, AR, \tau^+, +- \rangle$		
$\langle B, M, ae, \tau^+, +- \rangle$				
$\langle I, M, AR, \tau, + \rangle$	$\langle I, M, AR, \tau, + \rangle$	$\langle I, M, AR, \tau, + \rangle$		
$\langle B, M, ae, \tau^+, + \rangle$	$\langle I, M, ae, \tau, + \rangle$	$\langle I, gr, ae, \tau, + \rangle$ $\langle B, M, AR, \tau^+, +- \rangle$		

The content of the components in Figure 1 below, applied to the Hungarian declarative sentence illustrated in (1a), is as given in (1b-e), from left to right. This analysis is fundamentally based on the Gricean maxims of conversation (Grice 1975, see also Alberti and Kleiber 2014). The visual representation is essentially a conglomerate of (S)DRS boxes (Kamp *et al.* 2011), but, instead of parts of segmented logical formulas, it is immediately the referents (constants/variables) contained that are placed in the partially ordered boxes, augmented with the aforementioned level labels. It is just this system of labels that can be regarded as the characteristic innovation of  $\mathfrak{ReALIS}$  compared to other discourse representation theories (see

footnote 5): the partial ordering hierarchy of “boxes” containing information is arranged not (only/primarily) by logical relations but by sequences of the quintuples of labels.

- (1) a. Péter Marihoz költözött.  
Péter Mari.Ade move.Past.3Sg  
'Péter moved to Mari's.'
- b.  $\langle B, M, AR, \tau, + \rangle$  “I, (the addresser: AR) know that Péter moved to Mari's (I refrain from telling lies or bluffing).”
- c.  $\langle B, gr, AR, \tau, + \rangle \langle B, M, ae, \tau, 0 \rangle$  “I think that you (the addressee: ae) do not know this.”
- d.  $\langle B, gr, AR, \tau, + \rangle \langle D, M, ae, \tau, + \rangle \langle B, M, ae, \tau^+, + - \rangle$  “I think that you would like to be aware of this fact at a later point  $\tau^+$  in time (otherwise, I would not have uttered the sentence, since it is important for me to be relevant).”
- e.  $\langle I, M, AR, \tau, + \rangle \langle B, M, AR, \tau^+, + \rangle$  “(Being cooperative, too) I intend to help you to acquire the piece of information in question.”

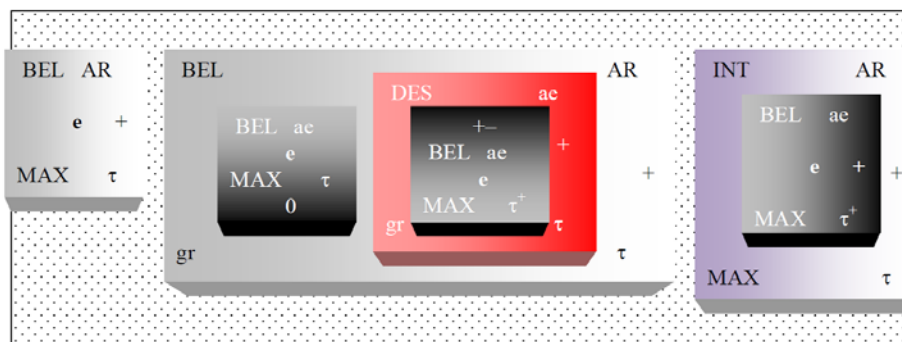


Figure 1: The intensional profile of the Hungarian declarative sentence

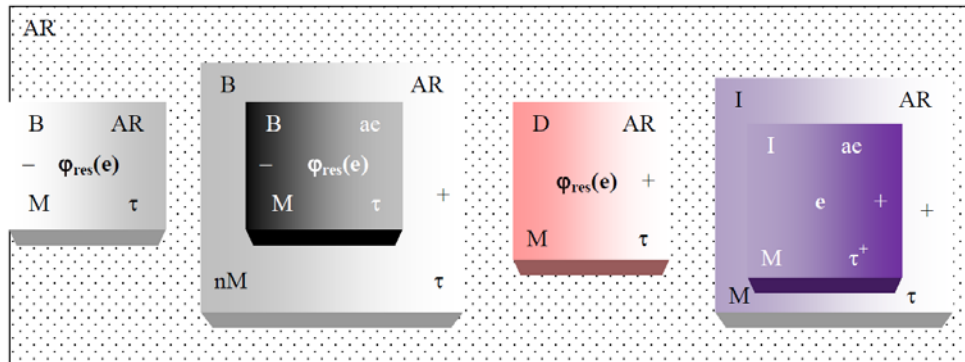
As is argued in Alberti and Kleiber (2014), the intensional profile of the basic Hungarian imperative-like sentence type (as well as that of *yes/no* questions) is almost a permutation of the labels making the intensional profile of the declarative sentence type (see (2a-e) and Figure 2 below; and compare Figure 2 to Figure 1). As for the distribution of knowledge, in the declarative profile, the addresser knows something which the addressee is assumed not to know, the interrogative profile (see (3) below) contains the opposite distribution of knowledge (Zuczkowski *et al.* 2014), while in the imperative profile, the addresser knows that something has not come true (at least so far) and (s)he assumes that the addressee thinks the same.<sup>7</sup>

- (2) a. Költözzön Péter Marihoz!<sup>8</sup>  
move.Subj.3Sg Péter Mari.Ade  
'Péter should move to Mari's.'

<sup>7</sup> Note that both in (1a) and in (2a) the piece of information concerned is Péter's moving to Mari's, which is an eventuality *e*. In (1a), the truth of *e* is conveyed, and in (2a), its coming true is the object of instruction. In (2a), however, at least according to the most preferred interpretation, what the addresser longs for is not *e* itself (a tiring flit) but the result state  $\varphi_{res}(e)$  of *e* (Péter and Mari's living together).

<sup>8</sup> The question whether the term *imperative* should be limited to second-person forms, is controversial; see also the footnote 4. Third-person forms are labelled as *jussives* in Jary and Kissine (2014), for instance.

- b.  $\langle B, M, AR, \tau, - \rangle$  “I, (the addresser: AR) am sure that the result phase  $\varphi_{res}(e)$  (see Farkas and Ohnmacht 2012) of the given eventuality  $e$  does not hold (i.e., Péter and Mari still live in different flats, that is, Péter has not moved to Mari yet)”
- c.  $\langle B, nM, AR, \tau, + \rangle \langle B, M, ae, \tau, - \rangle$  “I think that you (the addressee: ae) are also aware of this negative fact.”<sup>9</sup>
- d.  $\langle B, M, AR, \tau, + \rangle$  “I long for the aforementioned result phase  $\varphi_{res}(e)$ .”
- e.  $\langle I, M, AR, \tau, + \rangle \langle I, M, ae, \tau^+, + \rangle$  “I want you to intend the action, too.”



**Figure 2:** The intensional profile of the basic Hungarian imperative-like sentence type

As for desires, in the declarative profile (Figure 1), the addressee is assumed to long for something, namely, some information, while in the imperative (Figure 2) and the interrogative profiles, it is the addresser who longs for something. As for intentions, in the declarative profile, the addresser intends to serve as a cooperative partner by giving some information, while in the other two profiles, the addresser expects cooperative behavior from the partner. As is formulated in Jary and Kissine (2014: 58), “an utterance which is mutually recognised by both speaker and hearer as providing the hearer with a reason to act is a directive.”<sup>10</sup>

- (3) a. Péter Marihoz költözött?  
Péter Mari.Ade move.Past.3Sg  
'Did Péter move to Mari's?'  
b.  $\langle B, M, AR, \tau, 0 \rangle$  “I, (the addresser: AR) do not know whether the given eventuality  $e$  holds or does not hold (i.e., whether Péter moved to Mari's)”  
c.  $\langle B, gr, AR, \tau, + \rangle \langle B, M, ae, \tau, +- \rangle$  “I think that you (the addressee: ae) know the truth.”  
d.  $\langle D, M, AR, \tau, + \rangle \langle B, M, AR, \tau^+, +- \rangle$  “I wish I (also) knew the truth (in the future).”  
e.  $\langle I, M, AR, \tau, + \rangle \langle I, gr, ae, \tau, + \rangle \langle B, M, AR, \tau^+, +- \rangle$  “(That is why I have started the conversation.) I intend to help you to intend to help me to acquire the piece of information in question.”

As can be seen in Table 1 above, we attribute similar complexity to the above-discussed three intensional profiles, while the optative profile, exemplified in (4), and the exclamative profile,

<sup>9</sup> The certainty of the assumption is given as 'nM', that is, 'non-maximal'={some, great, almost maximal}.

<sup>10</sup> Jary and Kissine (2014: 51) define imperatives “as a sentence type whose prototypical function is to issue directives.”

exemplified in (5), are considered to be simpler. This latter evaluation is due to the fact that in the latter two cases no addressee seems to be involved in the addresser's thoughts.

- (4) a. Bár Péter Marihoz költözne!  
I\_wish Péter Mari.Ade move.Cond.3Sg  
'I wish Péter moved to Mari's.'
- b. ⟨B,M,AR,τ,-⟩ "I, (the addresser: AR) am sure that the result phase  $\varphi_{res}(e)$  of the given eventuality  $e$  does not hold (i.e., Péter and Mari still live in different flats, that is, Péter has not moved to Mari yet)"
- c. ⟨B,M,AR,τ,+⟩ "I long for the aforementioned result phase  $\varphi_{res}(e)$ ."

The optative sentence (4) simply expresses that the addresser longs for something that does not hold, while the exclamative sentence (5) expresses that the addresser has a new piece of knowledge, which (s)he was not aware of somewhat earlier ( $\tau$ ) and which (s)he finds either very desirable or very undesirable. In the case of the Hungarian exclamative sentence type, thus, the type itself does not reveal the polarity of the speaker's strong affected status ('+-').<sup>11</sup>

- (5) a. Péter Marihoz költözött!  
Péter Mari.Ade move.Past.3Sg  
'Péter moved to Mari's.'
- b. ⟨B,M,AR,τ,+⟩ "I, (the addresser: AR) know that Péter moved to Mari's."
- b'. ⟨B,M,AR,τ,0⟩ "I was not aware of this somewhat earlier."
- c. ⟨D,M,AR,τ,+⟩ "I find this very desirable or very undesirable."

A special intonation like the one presented in (6a) (in which the first syllable of the verb is ridiculously lengthened) or a discourse particle like *hadd* (cca. 'let') in (6b) is assumed in our theory to "fine-tune" the intensional profile that the matrix sentence type, here the imperative-like one, basically expresses. Table 2 below gives the modified intensional profiles, compared to the intensional profile of the matrix sentence type.<sup>12</sup>

- (6) a. *Köööltözzön* Péter Marihoz! (see column (b) in Table 2)  
move.Subj.3Sg Péter Mari.Ade  
'Péter can move to Mari's, I do not mind.'
- a'. *Köööltözz* Marihoz!  
move.Subj.2Sg Mari.Ade  
'You can move to Mari's, I do not mind.'

<sup>11</sup> Note at this point that the "definitions" of (linguistically encoded) intensional profiles belonging to speech acts are *underspecified* partial representations of potential roles of addressers, so speakers (and listeners) with different information states can adequately play the given addressers' (and addressees') roles. In the case of the utterance presented in (5), for instance, the underspecified polarity label licenses that a happy speaker ('⟨D,M,AR,τ,+⟩') can serve as its addresser as adequately as a sad speaker ('⟨D,M,AR,τ,-⟩'). In (2c), the label of intensity is underspecified in a similar way, and in Table 2, the use of referent  $r^*$  licenses underspecification in respect of distribution of roles in the given expositive speech acts.

<sup>12</sup> Our pragmatico-semantic analyses are chiefly inspired by and partly based on Szücs's (2010) empirical observations and systematization, besides a few observations by Turi (2009) and Péteri (2012) and the methodological clarification by Gärtner and Gyuris (2012).

- b. *Hadd* költözzön Péter Marihoz! (see column (c) in Table 2)  
 let move.Subj.3Sg Péter Mari.Ade  
 ‘Let Péter move to Mari’s.’

It is common in the three types presented in Table 1 (see the first two rows) that the addresser of the chosen speech act is sure that the result phase  $\varphi_{\text{res}}(e)$  of the given eventuality  $e$  does not hold (i.e., Péter and Mari still live in different flats and more or less assumes that the addressee is also aware of this fact.)

As for the differences, in the type illustrated in (6a), it is not the addresser who is declared to long for the given action—(s)he is rather against its coming true, as is shown by the label ‘ $\langle D, M, AR, \tau, 0- \rangle$ ’—but a person  $r^*$  who preferably coincides with the addressee or the Agent of the action, in this order (see the last row of the table); by the way, the Agent preferably coincides with the addressee (see (6a’) and the last but two row in Table 2). As for intentions, the addresser remains neutral, and does not want the addressee to do anything against  $e$ . The given speech act, thus, is practically giving permission.

**Table 2:** *The intensional profiles of three imperative-like sentence types in Hungarian*

	<b>a. Basic</b>	<b>b. CVVVC...</b>	<b>c. <i>hadd</i></b>
AR’s knowledge conc. $\varphi_{\text{res}}(e)$	$\langle B, M, AR, \tau, - \rangle$	←	←
ae’s knowledge conc. $\varphi_{\text{res}}(e)$	$\langle B, nM, AR, \tau, + \rangle$	←	←
(acc. to AR)	$\langle B, M, ae, \tau, - \rangle$		
AR’s, ae’s and/or Ag’s desire conc. $\varphi_{\text{res}}(e)$	$\langle D, M, AR, \tau, + \rangle$	$\langle D, M, AR, \tau, 0- \rangle$	$\langle D, M, AR, \tau, 0+ \rangle$
		$\langle B, nM, AR, \tau, + \rangle$	$\langle B, nM, AR, \tau, + \rangle$
		$\langle D, M, r^*, \tau, + \rangle$	$\langle D, M, ae, \tau, 0- \rangle$
			$\langle B, nM, AR, \tau, + \rangle$
			$\langle D, M, r^*, \tau, + \rangle$
AR’s intention conc. $e$ and/or ae’s intention	$\langle I, M, AR, \tau, + \rangle$	$\langle I, sm, AR, \tau, 0 \rangle$	$\langle I, M, AR, \tau, - \rangle$
	$\langle I, M, ae, \tau^+, + \rangle$	$\langle I, M, AR, \tau, - \rangle$	$\langle I, M, ae, \tau^+, - \rangle$
		$\langle I, M, ae, \tau^+, - \rangle$	
Pref’d.: Ag=	ae	ae	AR
Dispr’d.: Ag≠	AR	AR	ae
Pref’d.: $r^*=$		ae > Ag	AR > Ag

In the type in which the hortative discourse particle *hadd* ‘let’ appears (6b), it is the addressee who is assumed not to long for  $\varphi_{\text{res}}(e)$  while the addresser and the Agent long for it. The latter two participants preferably coincide (predominantly, the addresser asks for permission by this speech act), while this time it is the coincidence of the addressee and the Agent that is excluded, as is presented in column (c) of Table 2.

#### 4. “Case studies” about Hungarian imperative-like sentence types

This section is devoted to a detailed illustration of how ReALIS can capture in a formal way what was referred to as *Oishi-matching* in section 1 (essentially, the connection between what is encoded linguistically and what is actually in interlocutors’ minds). First of all, however, let us make some words on Oishi’s (2014) objectives.

Oishi intends to revisit and develop Austin's (e.g., 1975) speech act theory, to put forward the idea that expositive verbs bring about effects on the on-going discourse, and that evidentials and epistemic modals play discursive functions by indicating those acts. She argues that to indicate (i) the information source of a thing, event, or situation by an evidential, and (ii) the speaker's epistemic attitude toward it by an epistemic modal is to indicate what illocutionary act the utterance performs. Especially, evidentials and epistemic modals indicate a particular type of *expositive* illocutionary act, which is one of Austin's categories of illocutionary acts. We intend to complete this list of indicators with miratives (e.g., *gee* in English and its Hungarian counterpart *jé*) and with special stress patterns, beyond the choice of sentence type itself (see section 3).

Oishi argues that in performing one of the various types of expositive act, the speaker expounds her/his communicative engagement with the hearer, while inviting him to react to it in a specific way. There are various types of communicative activities that the speaker can provide: in saying an utterance, the speaker does something with a thing/event/situation in the world, with a statement, with the hearer, with knowledge about a thing/event/situation in the world, with the statement that has been imported, and/or with a thought.<sup>13</sup>

All this can be captured in the theory proposed by Oishi (2014) in a surprisingly simple way: in the case of each speech act, the speaker is to be distinguished from the addresser of the act, and the hearer from the addressee of the act, and the situation from the context of the act. The dynamism of performing the illocutionary act and the corresponding perlocutionary act, thus, is explained as complex interrelations between the speaker and the addresser, the hearer and the addressee, and the situation and the context (on this latter relationship, see footnote 12 again).

#### ***4.1. Ideal matching between roles defined in intensional profiles of speech acts and interlocutors of discourses***

Table 3 below sketches a case in which the generalized truth-conditional evaluation produces *yes* in each relevant area.

Let us consider the details. The utterance presented in (6a') in section 3 is performed. The first column presents its linguistically encoded intensional profile (see column (b) in Table 2). The second column shows the speaker's thoughts about Péter's moving to Mari's. As can be seen, the speaker (s) can readily serve as the addresser (AR) in the given speech act, since it is true that (i) she is sure that Péter and Mari live separately, (ii) and she thinks that the listener

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<sup>13</sup> The clause *he beats it*, for instance (known from the classics of DRT (see Kamp 1981)), can undergo Oishi-matching (a generalization of truth-conditional evaluation) in different ways. If an interlocutor is pointing at a farmer who is beating his donkey, it is a successful matching between some representation of the given utterance and the model of the world to pair the referents belonging to the pronouns *he* and *it* with the farmer and the donkey, respectively. If the clause in question, however, is part of a conditional sentence [*If a farmer owns a donkey,...*], then in the matching required, the aforementioned referents must correspond to certain referents in the *worldlet* (i.e., partial discourse representation) that belongs to the premise clause (namely, to the referents whose introduction is triggered by the indefinite expressions *a farmer* and *a donkey* (see also Alberti 2011)).

(l) also thinks so, (iii) she is definitely against the shift in question (which is a stance compatible with the role of an addresser who is *neutral or negative*), but (iii') she thinks, indeed, that the listener wants to move to Mari's, and (iv) she intends, indeed, to remain passive, partly by (iv') not attempting to make the listener to change his mind. As for the listener (see the third column), (i) he is naturally aware of the fact that he does not live together with Mari, but (ii) he wants to live with her, indeed. As for the real situation in the world (see the fifth column), (i) it is assumed that the speaker and the listener are friends, so the conjugation (*költözz*) used in (6a'), instead of the informal alternative *költözzön*, does fit the close relationship; (ii) the listener and Mari, indeed, live separately, but (iii) at a later moment, they already live together. This latter fact can be regarded as the realization of the listener's desire, which is compatible with the speaker's decision to remain passive (but is undoubtedly against the speaker's desire).

**Table 3:** Ideal Oishi-matching between  $\langle \text{ADDRESSER, addressee, context} \rangle$  and  $\langle \text{speaker, listener, situation} \rangle$

Speech act belonging to (6a')	Speaker	Listener	Listener's conclusion	Situation
$\langle B, M, AR, \tau, - \rangle$	$\langle B, M, s, \tau, - \rangle$			(i) Close relationship between s and l
$\langle B, nM, AR, \tau, + \rangle$	$\langle B, gr, s, \tau, + \rangle$			
$\langle B, M, ae, \tau, - \rangle$	$\langle B, M, l, \tau, - \rangle$	$\langle B, M, l, \tau, - \rangle$		(ii) Person l has not moved to Mari's yet
$\langle D, M, AR, \tau, 0- \rangle$ ;	$\langle D, M, s, \tau, - \rangle$ ;			
$\langle B, nM, AR, \tau, + \rangle$	$\langle B, gr, s, \tau, + \rangle$	$\langle D, M, l, \tau, + \rangle$		(iii) At a certain point of time in the future, l moves to Mari's
$\langle D, M, r^*, \tau, + \rangle$	$\langle D, M, l, \tau, + \rangle$			
$\langle I, sm, AR, \tau, 0 \rangle$ ;	$\langle I, sm, s, \tau, 0 \rangle$ ;			
$\langle I, M, AR, \tau, - \rangle$	$\langle I, M, s, \tau, - \rangle$			
$\langle I, M, ae, \tau^+, - \rangle$	$\langle I, M, l, \tau^+, - \rangle$			

The fourth column is left empty, because, as will be seen in subsections 4.2-4.4, the listener's conclusion about the speaker's real intention, on the basis of mismatches between what is encoded in the message and what can reasonably be thought about the speaker's hypotheses, desires and intentions, is worth considering if there *are* such mismatches. In the absence of such mismatches, the listener can reasonably retain his anterior hypotheses and accept what has been heard.

#### 4.2. Mismatches among worldlets and/or the world

Let us keep on considering the utterance presented in (6a') in section 3 but consider potential speakers and listeners who do not fit the "description" given in the six axioms that the corresponding intensional profile consists of, or whose knowledge does not suit the real world.

As for this latter case, suppose, for instance, that the listener and Mari have already lived together in secret for a month. The speaker, thus, sincerely performs (6a') but it is based on an erroneous belief. Thus, there is a mismatch between the speaker's input hypothesis according to they live separately and the world, in which they have already lived together, and there is

another mismatch between the speaker's input hypothesis concerning the listener's knowledge (they live separately) and the listener's actual knowledge.

Let us now consider another scenario in which Mari and the listener, who is now a son of a widower, who is the speaker, still live separately, and the mismatch concerns the third "axiom" in the intensional profile ( $\langle D, M, AR, \tau, 0- \rangle$ ): the speaker longs for his son's going away from his flat as soon as possible due to his new lover, but he does not want to face unpleasant questions. The father, thus, pretends as if his son's leaving served his son's interest.

Table 4 below presents a third scenario, in which the speaker and the listener are also father and son, and the son has lived together with Mari in secret for a month, before which the son lived in a dorm. Further relevant facts are that (i) the father knows the secret from Mari's best friend, (ii) his son is aware of the fact that he knows the secret, (iii) the father does know, however, that his son is aware of the fact that he knows the secret.

*Table 4: Deception*

Speech act belonging to (6a')	Speaker	Listener	Listener's conclusion	Situation
$\langle B, M, AR, \tau, - \rangle$	$\langle B, M, s, \tau, + \rangle$		(a) Person s does not want to reveal his "source".	The listener and Mari have already lived together in secret for a month.
$\langle B, nM, AR, \tau, + \rangle$ $\langle B, M, ae, \tau, - \rangle$		$\langle B, M, l, \tau, + \rangle$ ; $\langle B, M, l, \tau, + \rangle$ $\langle B, M, s, \tau, + \rangle$	(b) Person s intends to protect his face.	
$\langle D, M, AR, \tau, 0- \rangle$ ; $\langle B, nM, AR, \tau, + \rangle$ $\langle D, M, r^*, \tau, + \rangle$				
$\langle I, sm, AR, \tau, 0 \rangle$ ; $\langle I, M, AR, \tau, - \rangle$ $\langle I, M, ae, \tau^+, - \rangle$				

Let us analyze this intricate situation from the listener's aspect. The listener is now aware of a mismatch between (i) the intensional profile used, in which it is declared that the addresser thinks so that the addressee still does not live together with Mari, and (ii) the fact that the speaker knows the opposite, but without knowing that the listener is aware of this latter fact.

The listener, thus, is in a situation in which he can "create" his conclusion concerning the speaker's real intentions on the basis of two packages of information, which are now in conflict, in contrast to the case considered in 4.1. Obviously, it depends on further interpersonal knowledge to what conclusion the listener will be led by the given mismatches. The crucial point here is that *ReALIS*, due to its uniform representations, can offer a toolkit to decide listeners' "benefit" from utterances on the basis of the simultaneous consideration of linguistically encoded intensional profiles belonging to speech acts and actual information states.

In the particular case, the mismatches can lead the son to the conclusion that (a) his father wants to avoid Mari's friend from "getting caught" (he wants to avoid unpleasant questions as to how it is possible that she has served as his spy), or (b) the father attempts to



protect his face by pretending as if it depended on his permission whether his son live together with a girl.

### 4.3. Irony, calculated on the basis of mismatches

This subsection offers a development and expansion of Alberti, Vadász and Kleiber's (2014: section 5) approach to irony, which will be investigated not only in declarative sentences, like (7a) below, but also in imperative-like ones, like the *hadd*-sentence in (7b) (see column (c) in Table 2). In the *ReALIS* framework, irony can obviously be captured on the basis of, on the one hand, mismatches between what someone assumes to hear as an addressee and what (s)he considers likely as a listener, and, on the other hand, the speaker's expectations concerning the listener's such careful attitude (based on their close relationship).

- (7) a. „Megdolgozott” a sikerért.  
Perf.work.Past.1Sg the success.Cau  
'He has "worked" for the success.'
- b. *Hadd* mosogassak el utánatok!  
let wash.Subj.1Sg away after\_you<sub>PI</sub>  
'Let me do the dishes you have left here.'

As is demonstrated in the third three columns of Table 5, we follow Meibauer (2005: 1394) in definitely distinguishing telling a lie from using an ironical pattern, in spite of the fact that, quite frequently, the two cannot be discerned on the basis of the phonetic form of the utterance.

Telling a lie, at least in its most obvious form, which is the most immoral variant at the same time, can be captured as the violation of the first, and only the first, "axiom" of the declarative intensional profile (Alberti, Vadász and Kleiber 2014: 3.7.3): the speaker says *e* while knowing that *not e* is true (compare the second column to the first one). The crucial point is that such a speaker wants to implant a false piece of information in the listener's mind, in contrast to an ironical speaker (cf. the last rows in the first three columns).

**Table 5:** Irony and lying

Declarative	Lying	Irony in decl.	<i>hadd</i>	Irony in <i>hadd</i> -s.
$\langle B, M, AR, \tau, + \rangle$	$\langle B, M, s, \tau, - \rangle$	$\langle B, M, s, \tau, - \rangle$	$\langle B, M, AR, \tau, - \rangle$	$\langle B, M, s, \tau, - \rangle$
$\langle B, gr, AR, \tau, + \rangle$	$\langle B, gr, s, \tau, + \rangle$	$\langle D, gr, s, \tau, + \rangle$	$\langle B, nM, AR, \tau, + \rangle$	$\langle B, aM, s, \tau, + \rangle$
$\langle B, M, ae, \tau, 0 \rangle$	$\langle B, M, l, \tau, 0 \rangle$	$\langle B, gr, l, \tau, + \rangle$	$\langle B, M, ae, \tau, - \rangle$	$\langle B, M, l, \tau, - \rangle$
		$\langle B, M, s, \tau, - \rangle$		
$\langle B, gr, AR, \tau, + \rangle$	$\langle B, gr, s, \tau, + \rangle$	$\langle D, gr, s, \tau, + \rangle$	$\langle D, M, AR, \tau, + \rangle$	$\langle D, gr, s, \tau, - \rangle$
$\langle D, gr, ae, \tau, + \rangle$	$\langle D, gr, l, \tau, + \rangle$	$\langle B, M, l, \tau, + \rangle$	$\langle B, nM, AR, \tau, + \rangle$	$\langle B, gr, s, \tau, + \rangle$
$\langle B, M, ae, \tau^+, + - \rangle$	$\langle B, M, l, \tau^+, + - \rangle$	$\langle B, M, s, \tau, - \rangle$	$\langle D, M, ae, \tau, 0 - \rangle$	$\langle D, gr, l, \tau, + \rangle$
$\langle I, gr, AR, \tau, + \rangle$	$\langle I, gr, s, \tau, + \rangle$	$\langle I, gr, s, \tau, + \rangle$	$\langle I, M, AR, \tau, - \rangle$	$\langle I, gr, s, \tau, + \rangle$
$\langle B, M, ae, \tau^+, + \rangle$	$\langle B, M, l, \tau^+, + \rangle$	$\langle B, M, l, \tau, + \rangle$	$\langle I, M, ae, \tau^+, - \rangle$	$\langle B, M, l, \tau, + \rangle$
		$\langle B, M, s, \tau, - \rangle$		$\langle D, gr, s, \tau, - \rangle$

The third column sketches our analysis of the type of irony illustrated in (7a) above.<sup>14</sup> The second “axiom” (in the third column) expresses that the speaker expects to a certain extent ( $\langle D, gr, s, \tau, + \rangle$ ) that the listener consider it likely that *not e* is true. His or her desire and aim (see the last two rows) are nothing else but reaching (by performing the given utterance) that the listener be sure that (s)he knows that the opposite of *e* is true. The speaker is practically testing the listener, by putting their close relationship to the test. The listener can calculate the desirable conclusion if, and only if, (s)he knows the speaker well enough. The listener should decide whether *e* is true, which (s)he has heard, or *not e* is true, which is more likely on the basis of their interpersonal knowledge. Hence, (s)he should make a decision on the basis of such a mismatch as those discussed in 4.2.

Note in passing that according to an alternative analysis what is presented in the third column (modified in a way that *s* and *l* are replaced with *AR* and *ae*) is the intensional profile of an ironical declarative speech act.

The two analyses are not in conflict with each other; rather, they show the two sides of the same coin. If the listener is able to “hear” the irony in the case of an utterance and/or is accustomed to the speaker’s ironical utterances, the listener can accept him- or herself as the addressee of a special ironical speech act. This acceptance can be regarded as a stage of (their) communication, which is preceded by an earlier stage in which the calculation of the intended message rests upon noticing mismatches between a non-ironical speech act and their shared knowledge. It is hypothesized, thus, that it takes time to acquire different kinds of ironical speech acts.

The utterance presented in (7b) above exemplifies an imperative-like ironical speech act, which can also be acquired by means of noticing mismatches between the intensional profile of a “matrix” speech act (see the fourth column in Table 5) and natural assumptions about rational speakers. The particular speaker’s mind is characterized as follows in the fifth column of Table 5: (i) she is aware of the fact that the dishes have not been washed yet, (ii) she assumes that the speaker is also aware of this fact (NB: (i-ii) suit the intensional profile presented in column (c) in Table 2); in contrast to an ideal addresser, (iii) she does not long for what has been referred to (i.e., the speaker does the dishes in the future), (iii’) which is rather longed for by the listener, and (iv) she wants the listener to grasp that she does not intend to do the dishes at all. Thus, the listener is expected to notice (iii), in order to be led to (iv). As for (iii), it is not difficult to figure out that someone does not long for doing the dishes instead of other people.

#### **4.4. Politeness, calculated on the basis of mismatches**

In this subsection, a polite use will be sketched of the basic imperative-like speech act, defined in column (a) in Table 2 in section 3.

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<sup>14</sup> The literature distinguishes among different kinds of irony, not only as for their pragmatic uses but also as for their structures (Gibbs and Colston 2007). It is postponed to future research to verify that  $\Re$ ALIS theory can be applied to all of them.

Let our point of departure be that the utterance presented in (8) can be used “normally” in a situation in which it can be continued as follows: “You are so tall that I cannot see the stage.” In a case like this, thus, the speaker behaves as an ideal addresser in that (s)he wants the addressee to sit down.

- (8) Ülj            le!  
sit.Subj.Sg2    down  
‘Sit down.’

Table 6 below presents another kind of situation, in which the speaker and the listener are standing and there is only one seat free, which both long for taking. If the listener (say, a woman) realizes that the speaker (a man) is not likely to really long for  $\varphi_{res}(e)$  (a result state in which the listener is sitting), she can understand due to the mismatch that she is not an ideal addressee, at least according to the basic imperative-like speech act. As for  $\varphi_{res}(e)$ , it is *her* wish, which is easy to figure out. What she can calculate on the basis of these two factors is that (i) the speaker is likely to have recognized her wish, which is in obvious conflict with his similar wish, but is prepared for preferring her wish, being a polite person, so (ii) she should accept the offer, by deciding to take the given seat.

**Table 6:** *Politeness*

Speech act belonging to (8)	Speaker	Listener	Listener's conclusion	Situation
$\langle B, M, AR, \tau, - \rangle$				
$\langle B, nM, AR, \tau, + \rangle$				
$\langle B, M, ae, \tau, - \rangle$				
$\langle D, M, AR, \tau, + \rangle$	$\langle B, gr, s, \tau, + \rangle$ $\langle D, M, l, \tau, + \rangle$	$\langle B, gr, l, \tau, - \rangle$ $\langle D, M, s, \tau, + \rangle$ ; $\langle D, M, l, \tau, + \rangle$	$\langle B, gr, l, \tau^+, + \rangle$ $\langle B, gr, s, \tau, + \rangle$ $\langle D, M, l, \tau, + \rangle$	Persons s and l are standing. There is only one seat free. Person s intends to be polite.
$\langle I, M, AR, \tau, + \rangle$			$\langle I, M, l, \tau^+, + \rangle$	
$\langle I, M, ae, \tau^+, + \rangle$				

Just like in 4.3, noticing deviation from the intensional profile of a “matrix” speech act can be construed not only as a point of departure for the listener to calculate the speaker's real beliefs, desires and intentions, but also as another speech act systematically belonging to the same phonetic forms.

## 5. Explanations of six distinctive traits of autism in the $\Re$ ALIS framework

Since  $\Re$ ALIS provides a model of the human mind (primarily in order to explain pragmatic phenomena), it can, and hence it *must*, provide models on minds impaired in different ways. This section is devoted to the demonstration of the first results of our research into modeling the mental disorder of autism, a neuropsychiatric disorder whose leading symptom is deficient social cognition and atypical communication. We argue for the following thesis: individuals living with Autism Spectrum Disorder (ASD) demonstrate a reduced system of

worldlet structure to a milder or greater extent, even up to the absolute lack of this structure of worldlets. In order to defend this thesis, six characteristic and distinctive features of autism can be derived from it (of the ten features discussed in Alberti, Schnell and Szabó (to appear)).

Our point of departure is the model of the hypothesized intact worldlet structure presented in sections 3-4, which is assumed to serve the ability to *mentalize*, that is, to rely on a cognitive strategy that integrates background knowledge, mental states and actual signals of the other mind. In terms of the intensional profile belonging to the addresser-addressee-context triad (linguistically encoded, not related to any concrete situation) in the long-term memory model proposed by Leiss (2014), we can claim that it is stored in the semantic memory, while the intensional profile anchored to space, time, speaker's Self, listener, and (typically) to items of the external world (which may however be isomorphic, in ideal cases, see subsection 4.1), is generated in the episodic memory.

### **5.1. Deficient or absent social cognition**

This leading feature of Autism is a direct consequence of the reduced worldlet structure present in the disorder. In support of this claim it is enough to take a look at Figures 1-2 and the intensional profiles presented in sections 3-4.

The successful interpretation of the simplest declarative utterance of even the most sincere speaker requires the integration and decoding of four different worldlets, each of which may involve several levels themselves, as can be seen in Figure 1 in section 3. That is, one has to conceive that the addresser has made an assertion that they definitely believe to be true, whose truth content, they suppose, the addressee does not know, but has a desire to know it. Therefore, the addresser cooperates in a way that they share their knowledge of this information with the addressee. Furthermore, as we have mentioned several times, it shall be useful for the listener, ready to take on the addressee's role, to consider what the real intensional profile of the speaker (ready to take on the addresser's role) may be, and also, if the listeners themselves are ideal addressees of the content conveyed. These steps of mentalistic considerations concerning internal representations of the conversational partners may triple the number of worldlets to be considered. The ability to successfully read and denote such mental states is what determine our behavior, mental states, thoughts and communication, that is, our social cognition, and interpersonal relations. In autism the functions of the nervous system that are responsible for communication and social relations are affected. Living with a reduced worldlet structure (i.e., with a reduced number of internal representations of others' mental states and minds) means the loss of an enormous amount of information, for the above reason, which yields an increasing number of disadvantages, thus a cascade of difficulties in the field of interpersonal and efficient communication.

### **5.2. Scales**

Autism has a very versatile symptomatology which can be captured in a continuum and a spectrum rather than strictly defined as fitting every ASD patient. It ranges from severe cases

to outright mild forms where intellectual and linguistic abilities are almost intact. But even these cases involve atypical patterns in social bonding and stereotypical behavior rich in perseveration in movements or verbal phenomena.

The presence of these symptoms is fully accountable by the *ReALIS* framework. Györi *et al.* (2002) demonstrates that high functioning autistic individuals are able to handle two or three embedded mental states, while severe forms of the disorder mean that even one embedded mental state (e.g., ‘John thinks that the house is big’) is impossible to coordinate. In the *ReALIS* framework this is viewed as the hierarchy of mental spaces represented as boxes, and the levels of representations correspond to the levels of such mental boxes. Both approaches correlate with grammatical subordination. In the lower part of Figure 1 in section 3, the declarative speech act’s three-level and thus most complex structure can be transformed into a sentence involving subordinate clauses: “[Addresser strongly predicts that [addressee wishes [to obtain the truth value of the piece of information involved in the message]]].

Of course it is a topic of future research to map if the most severe cases of ASD mean that all the information is mixed in the same mental space or worldlet (i.e., speaker’s knowledge, somebody’s desires, someone else’s intentions, and so forth).

Even highly functioning individuals living with autism have difficulty with the previously mentioned three-level box-hierarchy of embedded representations, obviously due to its high complexity. Particularly, as speakers, they often do not consider if the listener is an ideal target, that is, if they are interested in the topic at hand, if the topic is relevant for them. They thus give the impression of a chatterbox, given that their grammatical competence and performance is almost intact, while the pragmatic aspects of language use (i.e. social-cognitive aspects if something is appropriate or not) are not in place. This dissociation is fairly well described in ASD symptomatology. Also, as listeners, they do interfere with conversations where they were not intended to be addressed, which is normally considered to be impolite and nosy.

### **5.3. Reduced interpretation**

As was thoroughly presented in sections 3-4, a sentence does not gain its information content based on sheer truth value (if it has a truth value at all), but may convey information in several different ways.

- I. The sequence of words presented in (1a) in section 3, for instance, uttered with an exclamative intonation, as is shown in (3a), conveys the message that the speaker has just learned this information, and is not indifferent concerning the content of the sentence. These subtle contextual traits are a lot more important for the hearer who already knows the information conveyed than the information or message itself.
- II. The imperative-like sentence presented in (2a) in section 3 also allows a number of inferences, depending on intonation. With a regular, calm intonation it suggests that the speaker wants the Agent to move to Mari’s. If, however, the first syllable of the verb was given emphasis and a lengthy intonation, then it designates an “I don’t mind, Péter can move to Mari’s, in spite of my aversion” meaning, which in fact builds on an

opposite presupposition: that the listener wants Péter and Mari to live together, and the speaker only gives permission with the “I don’t mind” tone.

- III. The utterances in (7a-b) and (8) in section 4 also exemplify that gaining the propositional content itself may give the listener a definitely opposite message under certain circumstances.
- IV. Note also that the information conveyed by the situational context may also be of a crucial importance. A question, for instance, may have strikingly different goals if a teacher (who obviously knows the answer) asks it in the context of an exam or a detective asks it during cross-examination, based on mixing real questions with those to which he exactly knows the answer (cf. (3b) in section 3; see also section 4 in Alberti and Kleiber 2015).

All in all, the propositional content of the message received is only an initiative factor of the calculation of speaker’s intent. Those living with autism, depending on the severity of their condition and symptoms, fall short of capturing some or all of such additional pieces of information, as a result of their reduced worldlet structure not capable of incorporating other minds’ mental representations. They cannot fully capture information conveyed by sentence type (see I above). They cannot grab meanings that are conveyed by such suprasegmental linguistic cues as specific intonation patterns and discourse particles, which serve the goal of “fine-tuning” (II). Nor can they rely on monitoring that seems to be essential in the successful decoding of speaker’s intent (III). Furthermore, they cannot grab the information conveyed by the situational context (IV).

#### **5.4. *Reduced communication toolkit***

It is well described in autism research that individuals living with the disorder cannot efficiently read metacommunicative signals. They have difficulty understanding facial mimics, gestures, body-language, and they do not use these in their repertoire either. Even those who seem to have their linguistic abilities in place and are competent language users do demonstrate atypical prosody and intonation patterns, their speech is often not structured, segmented, and often monotonous.

This latter trait is fully explained in our framework, revealing that the core problem is the reverse of the interpretation problem: those who as addressees cannot digest the multiplied amount of information resulting from the prism effect (see section 2), cannot multiply this as an addresser either. Thus they do not understand and hence do not use specific intonation patterns, or discourse particles (that many believe to be only fillers in language), which, however, act as tools and vehicles of the prism effect. The same refers to pieces of information conveyed by body-language, since those, too, transmit the information-state of the speaker, hence, mirror surface cues that may modify meanings.

### **5.5. Fear of competing alternatives**

For people living with autism it is extremely difficult to prepare for unexpected contents, therefore, they often demonstrate panic, anger and rage. The constancy of their environment and the predictability of those around them is essential in making sense of their surroundings. They often prefer monotonous activities based on repetition. This is sharply the opposite of the flexible healthy human mind ready to react to every twist of event, who build on the ability of having a “plan b” ready in case “plan a” falls short.

Storing alternatives require the existence of mental spaces or worldlets, which are stored in order in a fine-tuned system. Let us see what complex mental structures are required in the following story involving a number of alternatives (see Kleiber 2005).

“I immediately need a car because of the excursion. I can ask for Mary’s car, but then I have to invite her as well. I may invite her and hint at the awful weather that can be expected and that the most boring acquaintances will join me... Or I just honestly tell Mary that I’d like to have an excursion with Julia, just the two of us, though in this case the next day everyone will know that I have a crush on Julia. Of course we could go with Julia’s car, but then how will I explain that the car that swept her off her feet was at my place only for repair?”

People living with autism are not efficient and often not able to manage such alternative worldlets and representations, thus everything strikes them as unexpected. If they want to store pieces of information that are outright opposite to each other or implicitly incompatible, they will have a contradiction at hand that practically explodes their single worldlet, which may generate rage and panic. This is because a worldlet needs to be consistent in the inside, just like the possible worlds of model-theory semantics.

### **5.6. Genius traits?**

In two-thirds of the cases, ASD involves some mental retardation, but this can often be difficult to define due to communication problems present in the disorder. Beyond some normal cognitive abilities, however, some abilities (like memory, numerical skills) may be extremely developed, hence some movies portray people living with autism as geniuses (Gyarmathy 2009).

The explanation in the *ReALIS* framework suggests that an ASD patient, if their cognitive abilities are close to normal, will use the “bites” that serve for the creation, monitoring and manipulation of the structure of worldlets in a typical normal individual, to the creation, maintenance and manipulation of their single worldlet’s contents. That is, they will fill this single mental space with myriads of pieces of information in the same domain, instead of keeping track of who knows what, who thinks what the other believes to be true or untrue, who desires something and who not, who has no desire of someone knowing that the other person has no knowledge of something, etc.

### **5.7. Why is it difficult to diagnose autism before age three?**

It is fairly obvious from the simultaneously recursive mathematical definition of the  $\Re$ eALIS model of interpretation (see Alberti 2000, 2009, 2011) that in both phylogenesis and in ontogenesis, a gradual differentiation of the worldlet structure takes place, and parallel to this, the gradual refinement of the labeling system. This is in harmony with Leiss's (2014: 49-50) stance, who points out that a cognitive quartet differentiates *Sapiens* from animals, namely: the aspect of intensional-profile creating (Farkas and Ohnmacht 2012), time, manner and modality (Alberti, Dóla and Kleiber 2014, Alberti and Nóthig 2015). The same theory proposes that the age of acquisition (i.e. productive use and comprehension) of modal adverbs like "maybe" is around age 8, while that of modal verbs and particles takes place around age 9).

In developmental psychology, Wimmer and Perner (1983) and Astington (1993) did extensive research in the development of the understanding of mental terms of the Self and others, and for this a number of classic tests have been coined, among them the well-known false belief test based on unseen displacement, known as the theory of mind test, mirroring children's mentalizing ability at a sophisticated, verbalized level (for more on this, see Schnell 2007).

At the beginning of ontogenetic development, a basic "root-structure" forms the basic world of representations. There is a symbiosis between the child and the caregiver (mother). At this stage it is therefore not differentiated whose worldlet is the one at hand. Fiction and reality are mixed in the same mental dimension. The age at which children are competent enough to differentiate these two worlds at a verbal level which is also capable of driving behavior, is around ages 4-5, when children commonly pass standard false-belief tasks. Therefore, the modality of the worldlet does not function as a factor for differentiation.

## **6. Summary**

This paper offered such description of some imperative-like sentence types in potential well-formed Hungarian utterances which includes a parallel representation of the linguistically encoded intensional profiles of the sentence types and actual information states in potential interlocutors' minds.

Section 2 outlined the theoretical framework that makes this parallel representation possible. In Section 3, we demonstrated the intensional profiles of the five basic and two "fine-tuned" sentence types as members of a system enabling addressers' of utterances to express their beliefs, desires and intentions concerning the propositional content of the given utterances as well as the addressees' and other people's certain beliefs, desires and intentions (concerning the propositional content, too, or each other's thoughts). Section 4 provided "case studies" in which actual beliefs, desires and intentions in potential interlocutors' minds are compared to the linguistically encoded intensional profiles of Hungarian imperative-like sentence types. In this context, the listener's task is to calculate the speaker's intentions (and hidden motives) on the basis of the mismatches that this comparison reveals. Section 5



offered an insight into our attempts to model the mind of individuals living with Autism Spectrum Disorder.

This latter subproject is relevant since our framework provides solutions to pragmaticosemantic phenomena “at the cost” of undertaking the complex task of actually representing the structure of the human mind itself—which is not impossible but requires an adequate decision of the level of abstraction and the components to be used.

## References

- Alberti, G. 2000. Lifelong Discourse Representation Structures. *Gothenburg Papers in Computational Linguistics* 00–5: 13-20.
- Alberti, G. 2005. Accessible referents in “opaque” belief contexts. In H. van Ditmarsch and A. Herzig (eds.), *Proceedings of the 9th ESSLI Belief Revision and Dynamic Logic Workshop*, 1-7. Edinburgh: University of Edinburgh.
- Alberti, G. 2011. *ReALIS: An Interpretation System which is Reciprocal and Lifelong*, Paper presented at *Focus on Discourse and Context-Dependence*, Amsterdam, September 16, 2009. <http://lingua.btk.pte.hu/realispapers>.
- Alberti, G. 2011. *ReALIS: Interpretálók a világban, világok az interpretálóban*. Budapest: Akadémiai Kiadó.
- Alberti, G. 2012. Where are Possible Worlds? II. Pegs, DRs, Worldlets and Reification. In G. Alberti *et al.* (eds.), *Vonzásban és változásban*, 308–323. Pécs: Doctoral School of Linguistics at University of Pécs.
- Alberti, G., M. Dóla, and J. Kleiber. 2014. Mood and modality in Hungarian: Discourse Representation Theory meets Cognitive Linguistics. *Argumentum* 10: 172-191.
- Alberti, G., and M. Károly. 2012. Multiple Level of Referents in Information State. In A. Gelbukh (ed.), *Computational Linguistics and Intelligent Text Processing*, 349-362. Berlin, Heidelberg: Springer.
- Alberti, G., and J. Kleiber. 2012. Where are Possible Worlds? Arguments for *ReALIS*. *Acta Linguistica Hungarica* 59: 3-26.
- Alberti, G., and J. Kleiber. 2014. *ReALIS: Discourse Representation with a Radically New Ontology*. In L. Veselovská, and M. Janebová (eds.), *Complex Visibles Out There*, 513-528. Olomouc: Palacký University.
- Alberti, G., and L. Nőthig. 2015. *ReALIS2.1: The Implementation of Generalized Intensional Truth Evaluation and Expositive Speech Acts in On-Going Discourse*. *International Journal on Advances in Intelligent Systems* 8/1-2: 85-106.
- Alberti, G., Z. Schnell, and V. Szabó. to appear. *Autizmussal élni: más elmével élni [Living with Autism: Living with a Different Mind]*. Budapest: L'Harmattan.
- Alberti, G., N. Vadász, and J. Kleiber. Ideal and Deviant Interlocutors in a Formal Interpretation System. In A. Zuczkowski *et al.* (eds.), *The communication of certainty and uncertainty*, 59-78, Amsterdam: Benjamins, 2014.
- Asher, N., and A. Lascarides. 2003. *Logics of Conversation*. Cambridge: Cambridge Univ. Press.
- Astington, J. 1993. *The child's discovery of the mind*. Cambridge, MA: Harvard University Press.
- Austin, J.L. 1975. *How to Do Things with Words*. Oxford: Clarendon Press.
- Dowty, D., R.E. Wall, and S. Peters. 1981. *Introduction to Montague Semantics*. Dordrecht: Reidel.
- Farkas, J. and M. Ohnmacht. 2012. Aspect and Eventuality Structure in a Representational Dynamic Semantics. In G. Alberti, J. Kleiber, and J. Farkas (eds.), *Vonzásban és változásban*, 353-379. Pécs: PTE BTK Nyelvtudományi Doktori Iskola.
- Gärtner, Hans-Martin and Beáta Gyuris. 2012. Pragmatic markers in Hungarian: Some introductory remarks. *Acta Linguistica Hungarica* 59: 387-426.
- Gibbs, R.W., and H.L. Colston (eds.) 2007. *Irony in Language and Thought*. Lawrence Erlbaum Associates.
- Grice, P. 1975. Logic and Conversation. In P. Cole, and J.L. Morgan (eds.), *Syntax and Semantics* 3, 41-58. New York: Academic Press.
- Gyarmathy, É. 2009. Atipikus agy és a tehetség I. – Tehetség és a neurológia háttérű teljesítményzavarok valamint az Asperger szindróma. *Pszichológia* 29: 377-390.

- Győri, M., K. Gy. Stefanik, I. Kanizsai-Nagy, and A. Balázs. 2002. Naiv tudatelmélet és nyelvi pragmatika magasan funkcionáló autizmusban: reprezentációs zavar, performanciakorlát, vagy kompenzáció? In M. Racsmány and S. Kéri (eds.), *Architektúra és patológia a megismerésben*, 11-39. Budapest: Osiris.
- Jary, M. and M. Kissine. 2014. *Imperatives*. Cambridge: Cambridge University Press.
- Judge, K.E. 2014. Epistemic uncertainty and the syntax of speech acts. In S. Cantarini *et al.* (eds.), *Certainty-uncertainty – and the attitudinal space in between*, 217-237. Amsterdam: Benjamins.
- Kamp, H. 1981 A theory of truth and semantic representation. In J. Groenendijk, T.M.V. Janssen, and M. Stokhof (eds.), *Formal Methods in the Study of Language*, 277-322. Amsterdam: Mathematical Centre.
- Kamp, H., and U. Reyle. 1993. *From Discourse to Logic*. Dordrecht: Kluwer.
- Kamp, H., J. van Genabith and U. Reyle. 2011. Discourse Representation Theory. In D.M. Gabbay, and F. Guenther (eds.), *Handbook of Philosophical Logic*, 125-394. Berlin: Springer.
- Kaufman, M. 2012. *Interpreting Imperatives*. Dordrecht: Springer.
- Kleiber, J. 2005. Across world(let)s in a representationist interpretation system. In J. Gervain (ed.), *Proceedings of the 10<sup>th</sup> ESSLLI Student Session*, 112-121.
- Kratzer, A. 2012. *Modals and Conditionals*. Oxford: OUP.
- Labinaz, P., and M. Sbisà. 2014. Certainty and uncertainty in assertive speech acts. In Andrzej Zuczkowski *et al.* (eds.), *The communication of certainty and uncertainty*, 31-58. Amsterdam: Benjamins.
- Leiss, E. 2014. Modes of modality in an Un-Cartesian framework. In Sibilla Cantarini *et al.* (eds.), *Certainty-uncertainty – and the attitudinal space in between*, 47-62. Amsterdam: Benjamins.
- Meibauer, J. 2005. Lying and falsely implicating. *Journal of Pragmatics* 37: 1373-1399.
- Oishi, E. 2014. Discursive functions of evidentials and epistemic modals. In S. Cantarini *et al.* (eds.), *Certainty-uncertainty – and the attitudinal space in between*, 239-262. Amsterdam: Benjamins.
- Péteri, A. 2012. The Hungarian Imperative Particle *Hadd*. *Acta Linguistica Hungarica* 59: 439-463.
- Pollard, C. Hyperintensions. *An ESSLLI 2007 course*. Accessed January 12, 2016 <http://www.ling.ohio-state.edu/~hana/hog/>
- Reyle, U. 1993. Dealing with Ambiguities by Underspecification: Construction, Representation and Deduction. *Journal of Semantics* 10: 123-179.
- Schlangen, D., A. Lascarides, and A. Copestake. 2003. Imperatives in dialogue. In P. Kühnlein, H. Rieser, and H. Zeevat, *Perspectives on Dialogue in the New Millennium*, 287-305. Amsterdam: Benjamins.
- Schnell, Z. 2007. Metaphor Processing and the Acquisition of Idioms – A mentalistic model. *Acta Linguistica* 54: 73-104.
- Szücs, M. 2010. A *hadd* problémaköre. In Z. Gécség (ed.), *LingDok 9, Nyelvész-doktoranduszok dolgozatai*, 193-210. Szeged: University of Szeged.
- Turi, G. 2009. Kötőmód a mai magyar nyelvben. *Argumentum* 5: 25-38.
- van Eijck, J. and H. Kamp. 1997. Representing discourse in context. In J. van Benthem, and A. ter Meulen (eds.), *Handbook of Logic and Language*, 179-237. Amsterdam: Elsevier, and Cambridge: MIT Press.
- Venhuizen, N., J. Bos, P. Hendriks, and H. Brouwer. 2015. Differentiating projection phenomena in a unified semantic framework. Paper presented at *Redrawing Pragmasemantic Borders*, University of Groningen, March 19-20, 2015.
- Wimmer, H., and J. Perner. 1983. Beliefs about beliefs: representation and the containing function of wrong beliefs in young children's understanding of deception. *Cognition* 13: 103-128.
- Zuczkowski, A., R. Bongelli, L. Vincze, and I. Riccioni. 2014. Epistemic stance. Knowing, Unknowing, Believing (KUB) positions. In A. Zuczkowski, R. Bongelli, I. Riccioni, and C. Canestrari (eds.), *Communicating Certainty and Uncertainty*, 115-135. Amsterdam: Benjamins.

# Do they understand more? Turkish EFL speakers perception of sentence stress in English

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## Abstract

As one of the most prominent elements of intonation sentence stress frequently contributes to the meaning expressed by speakers. It most typically signals details of an utterance information structure, but it also performs a contrastive or emphasizing function, thus expressing focus in the spoken discourse. In English and many other languages its location, while exhibiting certain regularities it additionally determined by extra relevant or relative information. As such, either alone or in combination, it may communicate certain additional shades of meaning that, similarly to the contribution of sentence intonation, may escape the attention of EFL speakers.

The paper explores the comprehension sensitivity of Turkish speakers of English when it comes to identifying meaning details contributed by sentence stress. It investigates their awareness as detected through perception of variable sentence stress location. The target group are Turkish advanced speakers of English, with various levels of competence, and only sporadic phonetic training in English for part of them. In a perception-based experiment they were asked to identify the details they perceive. Their results were then compared and analysed, also in relation to what their native language (with a distinction into sentential and focal stress) adds in terms of this module of utterance intonation. Finally, their results were correlated with those achieved by Polish advanced speakers of English as investigated in a similar study conducted earlier. The interpretation of the results reveals that Turkish EFL speakers are more sensitive to the highlighting or contrastive function of sentence stress, achieving overall better result here than when they are to judge its contribution to notion such as politeness or impatience. They are also rather competent at detecting the prominent element in an utterance.

**Keywords:** sentence stress, discrimination, phonetic training, focus, contrast

## 1. Introduction

Sentence stress plays an important role in English verbal communication, since there seems to be a close relationship between information status and the location of the sentence prominence peak. Incorrectly applied it may confuse interlocutors, and even break down a conversation. It is also challenging for EFL learners to master as it is neither easy for them to perceive nor to produce phrasal stress. The concept and its use apparently must first get grounded in the minds of speakers in order to be used later according to what language or necessity dictates. Successful perception, therefore, is the first prerequisite for acquisition and

ultimately production, hence the preoccupation of this paper is with perceptual sensitivity to this module of intonational structure of language.

As one of the most prominent elements of intonation, sentence stress may and frequently does contribute to the meaning expressed by speakers. As observed by Nilsenová and Swerts (2012: 77), the specific prosodic functions differ across languages. In its default application, it most typically signals details of an utterance information structure. However, it also performs a contrastive or emphasizing function, thus expressing focus in the spoken discourse. In English and many other languages its location, while exhibiting certain regularities is additionally determined by extra relevant or relative information, as determined in the speakers' minds and dictated by actual use. As such, either alone or in combination with other elements of utterance prosody, it may communicate certain additional shades of meaning that, similarly to the contribution of sentence intonation, may escape the attention of EFL learners.

This paper explores the comprehension sensitivity of Turkish speakers of English as a Foreign Language when it comes to identifying meaning details contributed by sentence stress. It investigates their awareness as detected through perception of variable sentence stress location. The target group are Turkish advanced speakers of English, with various, though generally advanced, levels of competence, where part of them received infrequent occasional phonetic training in English oral skills, also with respect to sentence stress practice. Most of them, however, remain phonetically untrained. In a perception-based experiment they are to identify the details they perceive. Their results are then compared and analysed, also in relation to what their native language (with a distinction into sentential and focal stress) adds in terms of utterance intonation. Finally, their results are correlated with those achieved by Polish advanced speakers of English as investigated in a similar study in Buczek-Zawiła (2015).

## **2. Sentence stress in English and Turkish**

Not all information in a (spoken) discourse is equally important. In neutral discourse context, when words combine to form a sentence, one of them will typically receive greater prominence. The use of such phrasal/sentential stress in speech helps language users to both understand and deliver meaning in longer utterances. It is a general regularity that within utterances we emphasise tonic syllable in order to first and foremost highlight the most significant new information. It is only natural that speakers will make certain assumptions as to what is the given or the new information and express the distinction accordingly. And this function of signalling information structure is seen as the primary one for sentential stress (Szwedek 1989, Archibald 1997, Harris 2014). Katie Harris (2014: 29), though, argues that in the opinion of many researchers newness and givenness are not dichotomous entities, but points on a scale, where both discourse proximity and syntactic relations will be of significance.

Ladd (2008) explains further the distinctions in the functions of sentence stress, labelled as the normal stress view and the highlighting view. According to the former, there is one

pattern of prominence that can be specified by rule for every sentence and such normal stress has no meaning or functions, it is the direct outcome of the operations of phonological rules on surface syntactic structures. A deviation from such normal stress will always involve signalling contrast or emphasis – hence the different label “contrastive stress”. They are largely unpredictable and therefore governed paralinguistically. The latter, that is the highlighting view, essentially emphasised the idea that what speakers decide to highlight – thus focus on – is not a matter of grammar, but rather of what they are trying to say in the specific circumstances that the discourse takes place. What resides in speakers’ minds is essentially unpredictable, though may occasionally be related to societal factors. In this view, if “accent distribution functions as a ‘prosodic pointer’ to highlight new/contrastive information and render given information less salient” (Harris 2014: 29), a clear and sharp divide between normal and contrastive stress cannot be obtained, as these will represent the extreme ends of informativeness continuum.

Sawicka (1988: 169) maintains that acoustically the three major factors such as fundamental values of  $F_0$  frequency as well as duration and intensity collaborate to constitute the melodic contours of which phrasal stress is part. The actual acoustic make-up of the contours is straightforwardly correlated with the utterance and text meaning, thus far possibly performing a distinctive function. Text segmentation into phrases, through identification of pauses with identical or fairly similar  $F_0$  melodic line, can thus be meaning relevant. Sawicka (1988: 173) further clarifies that any deviation in what is the regular prominence pattern, as manifested in the change of any of the prominence parameters, signals a shift from the logical, rhematic accent to the emphatic or emotional. It is emphasised, though, that the boundary between the rhematic and the emphatic accent is often difficult to establish, both from the point of view of its communicative function (frequently, the rhematic and the emotional functions are realised simultaneously in an utterance) as well as in view of the means that express those functions (Sawicka 1988: 174). It appears that the “norm”, the prevailing tendency in a good number of languages is for the main accent to occur near the end of a phrase or sentence.

Katie Harris (2014: 28) believes English to belong to what she terms “plastic languages”, one characteristic of which is seen in the prosodic marking of referents which have been previously mentioned or are expected from a discourse. Such languages have a relatively fixed word order but a rather flexible prosodic structure. “While words cannot be easily moved between different positions in a sentence, readers are relatively free to accent different words independent of their position” (Nilsenová and Swerts 2012: 83). This is prosodically achieved through what Ladd (2008: 231ff) terms “deaccentuation”. He reports that English (and languages like English) “more or less insists on deaccenting repeated materials” (Ladd 2008: 232). This de-accenting of given information, however, is not a language universal, as pointed out by Caspers (2014). Typologically, again, there are also languages (the “non-plastic” ones) which strongly and consistently resist such deaccenting, where a fixed accent distribution is not related to conveying information status, yet even there the main accent can be shifted away from the neutral location under specific circumstances. Typically though, such non-plastic languages tend to vary their word order to shift words into locations where they will be

understood as focused, thus employing structural constraints rather than pragmatic information (Casper 2014).

As for English,<sup>1</sup> then, we talk about two major types of tonic placement. The neutral, unmarked or default type is one that does not express emphasis or contrast. This neutral tonicity typically on the last content word<sup>2</sup> in a sentence or phrase most frequently signifies the rheme, or that part of the sentence which contains new information. Therefore, it can safely be said that the main function of the sentence stress is to single out the communicative centre of the sentence. Ladd (2008: 231) observes that since the English sentence stress can be influenced by the relative informativeness of words in an utterance, it is well known that the main accent tends *not* to be placed on elements that are repeated or “given” in the discourse or those that are vague or generic. If a different word, for example, a function word or a lexical word, besides the final one is to be stressed, this will be a case of contrastive stress. This means that the item which carries the accent is consciously emphasized in opposition to what might otherwise be the case, thus being the other type of tonic placement – the dislocated tonic. It can be further allocated to two major subtypes, namely the contrastive stress – where the shifting of nuclear stress can be exploited to change meaning by contrasting one word with another that could have been used in its place, e.g. “*I love YOU*” (as opposed to some other guy/girl); and the corrective stress – here the effect of shifting tonic stress onto a particular word can be exploited to identify a mistake in something that was said, e.g. “*Oops, I meant NEXT month, not THIS month*”.

Apart from languages like English in which rightmost main accent is the overwhelming norm, there are those which allow the tonic to occur earlier in a sentence. Languages with the subject-object-verb (SOV) word order represent one group of such instances. Turkish belongs to this typological subgroup. It is a SOV language that accentually distinguishes predicates and arguments, therefore the neutral or broad focus location for the main accent will fall on the object, especially so with indefinite pronouns (Ladd 2008: 250).

According to Göksel and Kerslake (2005: 37) in a simple sentence which is uttered as a single intonational phrase the unmarked position of primary stress is the stressable syllable of the word which is situated just before the predicate. Thus Turkish seems to treat predicates and arguments unequally with respect to phrasal accentuation. Two factors may decide upon the change in the stress position: the presence of clitics or negative suffix (which both attract sentential stress) as well as focusing a constituent, which may cause primary stress to appear on a constituent other than the one immediately preceding the predicate, as long as it remains preverbal. Göksel and Özsoy (2000: 224) argue that the surface syntax of Turkish has no designated focus position as focus is indicated there solely by means of stress. As such it can be assigned to any preverbal constituent. That is because any type of constituents can be focused provided it is heavily stressed at the same time. A less common strategy, as reported by Göksel and Kerslake (2005: 345), for focusing an element is to place stress on it in its

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<sup>1</sup> For more extensive discussion of sentences stress conditions and functions in English the reader is referred to Buczek-Zawiła (2015), Mott (2005) and Archibald (1997).

<sup>2</sup> In the subject literature it is referred to as the accent-bearing location at the end of the sentence.

unmarked position. As a result, ambiguous readings become possible, yet they may be resolved phonetically by the relative degree of stress.

According to Göksel and Özsoy (2000: 227)<sup>3</sup> two types of sentence accent need to be recognized for Turkish: sentential stress proper, occurring in the immediately preverbal position, and focal stress. The latter is assigned at the level of F(ocus)-structure – a projection of S-structure marked for Topic and Focus. They write:

‘We take stress to be the indicator of the leftmost boundary of the focus field. A phrase which denotes non-recoverable information has to occur in the focus field, whether it be directly under the stressed position or anywhere to the right of this position, as long as it is preverbal.’

(Göksel and Özsoy 2000: 225)

Thus, the areas between the constituent which takes focal stress and the position indicative of the verbal complex is where the non-recoverable information is to be found.

The situation becomes blurred not when two elements compete for accent – since the leftmost bears it – but because there is only one stress per simple sentence in Turkish. Since all phrases are stressed on their left-branching nodes, the Verb Phrase is no exception and so the immediately preverbal position is the most plausible site for the main sentential accent. It is also possible – though much less plausible – that this position can also bear focal stress. Which one it is can only become apparent through phonetic clues and evidence with contrastive focus.

All this testifies to the fact that although largely having to do with the function of singling out the communicative centre of the sentence, the sentence stress in Turkish works slightly differently than it does in English. The existence of cross-linguistic differences and variability in sentence stress and prosodic marking of information structure will naturally mean that speakers of languages other than English, when speaking it, may decode the message in a different way than native speakers do. They may also produce it in positions different than the typical. Therefore, the acquisition of these properties may prove difficult for EFL speakers.

### 3. Motivation for the current study.

It is interesting to be able to observe whether L1 Turkish speakers of English consciously perceive the intricacies of the English system. It has been noted (Ladd 2008: 239) that the production of sentence stress will largely depend on speaker’s assessment of what is likely to be in the hearer’s consciousness or at the centre of hearer’s attention. The other end of communication – the hearer is likewise likely to contribute their perceptions and understandings. Therefore, the current investigations – like those in Buczek-Zawiła (2015) – are heavily biased towards perception, in the hope that well-developed recognition awareness will translate into more conscious and more deliberate use of this particular suprasegmental feature.

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<sup>3</sup> For a slightly different view and interpretation see Çetin and Coşkun (2016).

### 3.1. *The specific interest*

This research survey investigates several areas related to sentence stress use in L2 English as used by Turkish speakers. The can be expressed in terms of the following research aims:

- To determine whether speakers can auditorily discriminate between utterances with sentence prominence marked through sentence stress in English, that is, whether they recognize that an utterance contains a more prominent element
- To examine the speakers ability to interpret the meaning communicated through the different positions of the accent in English, especially that in terms of grammatical structure it differs from what they are familiar with in their own language
- To investigate the possibility of interactional relationship between the relevant abilities acquired through basic training in prosodic prominence marking: does better perception of meaning created through sentence accent is related to earlier experiences in producing relevant oral skills
- To compare the perception abilities of English sentence stress meaning awareness of Polish and Turkish EFL speakers, basing on the same material yet in conditions of different cross-linguistic variation

### 3.2. *The study*

#### 3.2.1. Participants

An overall number of 74 respondents participated in the survey. Age-wise they range from 18 to 23 year of age (SD= 2.1086).<sup>4</sup> They comprise the 2014 (or earlier) secondary school leavers, currently taking first year degree courses in the Department of Translation at Istanbul University (38 participants) as well as students of the third year in the same department (36 participants). Table 1 summarizes the information about the two groups. It should, however, be pointed out that the participants' gender, age details or specific experience with and in English were not taken into account when analyzing their performance. Rather, group-characteristic tendencies were tried to be extrapolated from the results obtained.

*Table 1: The participants*

		YEAR 1		YEAR 3	
<b>Total number</b>		38		36	
<b>Men</b>	<b>Women</b>	16	22	17	19
<b>Mean age - total</b>		19.263		22.27	
<b>SD</b>		1.08		1.79	
<b>Men</b>	<b>Women</b>	19.375	19.181	22.64	21.94
<b>Phonetic training</b>		none		occasional, unsystematic	

<sup>4</sup> Plus one extra class member who was a mature student, participating in the classes as part of his rehabilitation program from the host penitentiary institution.



Their estimated level of Proficiency in English is slightly above the FCE level (save in one case, where the participant is known to have passed the CPE exam and with a very good grade). All are untrained phonetically when it comes to English, though in the course of the degree they have classes called Oral Skills (Speaking), where they practice oral communication abilities.

### 3.2.2. Procedure

The experiment procedure was as follows: originally in 2014 two sets of short sentences were recorded for the purposes of the survey; a male native speaker of Polish read the Polish examples, a female native speaker of English read the English ones. The two sets were not translational equivalents of each other, but represented characteristic patterns of both languages. Of these only the English ones were selected for the present investigations. The sentences were then converted into MP3 files, labeled according the sequence of questions in the actual quiz. The actual survey consisted of 15 questions and took place between the 23-27 of March 2015. The participants were to read the question, listen to the relevant audio file or files and provide an answer, choosing from the options listed. Only one question was of a true/false type (Q 13). The questions called for recognition of a perceptual difference in the way two sentences were said, providing an interpretation of an utterance meaning or selecting a context in which a given sentence was likely to be heard. Occasionally, reference was made to speakers communicating other related notions such as politeness or impatience. There was no limit set on the number of times the participants could play the recordings, additionally they had no access to the written version of the utterances, so that in their judgments they had to rely solely on the auditory impressions. The full list of actual questions as well as the sentences serving as audio material are provided in the appendix to this paper. As an example, we show two instances below, together with the incriminated sentences:

*In which of the two utterances (A and B) it took longer to find the mysterious thing?*

*Which of the two (A or B) sounds more polite and nicer?*

A     *Is this what you're looking for?*

B     *Is **this** what you're looking for?*

### 3.2.3. Limitations

In May 2013, during an Erasmus Staff Mobility exchange visit the then first year freshmen had some classes with the author where we practiced tonic placement in English and certain basic intonational contours as well as discussed the meaning contributed by these elements of sentence prosody. This group were the 2015 third year students, who constituted one group of participants, and were met again in March 2015 during another Erasmus Exchange. A month earlier, in February 2015, a colleague from the Pedagogical University of Cracow, Piotr Okas, had some classes with the same group(s), but he concentrated more on word stress, also in compounds, and on individual segment articulation.

The same set of practice activities related to sentence stress as in 2013 was planned for the 2015 Year I, these, however, took place after they completed the quiz.

The format of the quiz was such that they had no access to the written form of the sentences, so that they had to rely solely on the aural input. For some among them this may have constituted additional point of difficulty. On the other hand, they still had to do a substantial amount of reading during the quiz, in order to be able to judge the recorded material accordingly and to mark the selected answer. The recordings themselves were somewhat idealistic, read at a pace that was slower than in ordinary conditions of casual conversation. This also could affect the participants performance in both groups.

Thus, we have two groups of respondents who differ in the years of experience as students in this particular department and, consequently, in having more training in their English language skills. Additionally, the older group had some instruction in the matters being tested beforehand, though the training was only occasional and unsystematic.

### 3.3. *The results*

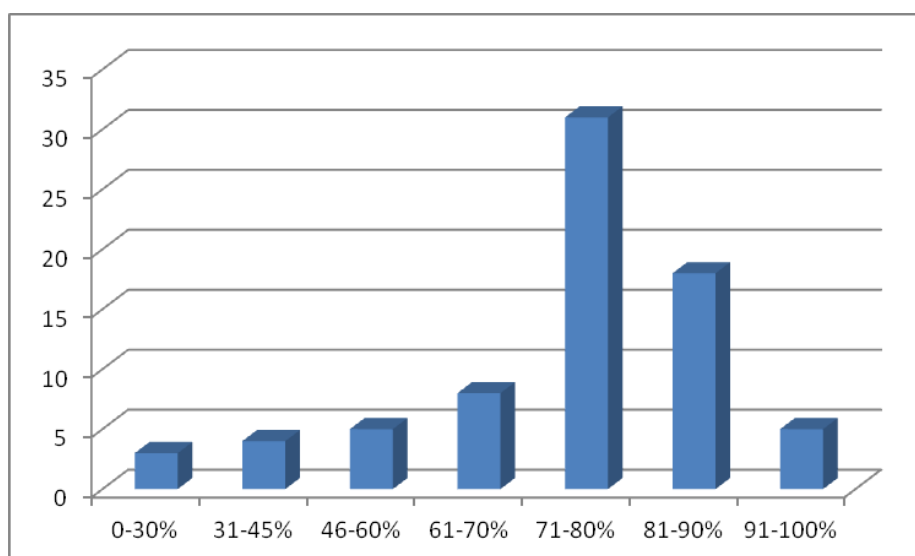
The formula decided upon by the researcher was such that the participants were informed of the score they received in this quiz-format survey, both as feedback to individual questions as well as the final score of correct/incorrect answers. In that way it could be assured that the quiz itself was a good starting point for class practice that followed. For the purposes of analyzing the participants' performance, only the correct – incorrect ratio was taken into account, with no further analysis of the incorrect options selected (in the case where more than one invalid/erroneous interpretation was offered). Such evaluation procedure was decided upon a priori as a means of arriving at conclusions related to the relative difficulty of the perceptual tasks.

The general statistical information about the survey is summarized in the following table:

**Table 2:** *Survey statistical information*

<b>Quiz name</b>	Sentence stress survey_1
<b>The quiz date</b>	23-27.03.2015
<b>Total number of complete graded attempts</b>	74
<b>Average grade of all attempts</b>	74.63%
<b>Median grade (for all attempts)</b>	74.34%
<b>Standard deviation (for all attempts)</b>	11.58%

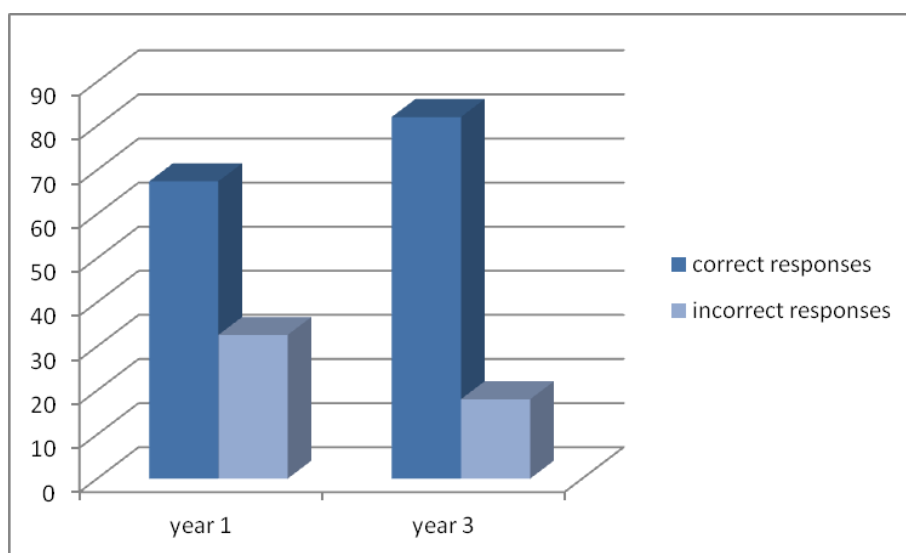
The overall score overview for all participants is presented in the graph that follows:



**Figure 1:** *The overall score graph*

The graph immediately demonstrates that the highest number of participants in both research subgroups achieved the score between 71 and 80 per cent of correct responses, with very few of them demonstrating either poor or very good perception and understanding of sentence stress related meanings. The results are not evaluated here as being desirably or satisfactorily high or low. They are presented in order to reveal the dominant pattern evident in students' perception skills.

However, when we compare the number of correct responses, as calculated from the statistical facility index, given in relation to scores obtained by Year 1 students with those of Year 3 students, the scores turn out to differ, though at first sight not terribly dramatically:



**Figure 2:** *Scores of correct to incorrect answers for English in two groups of respondents*

The results are respectively 67,41% and 82% for the percentage of correct interpretations of English utterances by Year I and Year III respondents. Additionally, the average scores on an item show that students are more aware of what is being said to them when contrastive stress

is effected (e.g. question 11 and 12), not when notions such as politeness or other emotions are being communicated (questions 3 or 6 for example).

In order to evaluate whether the results obtained in the survey can be generalized beyond the population tested, a non-parametric statistical tool, the chi-square test, was used to determine the statistical significance (or lack thereof) of the actual scores. The particular test was believed to be appropriate here as the subjects' perceptions were judged to be either the right or the wrong interpretation of particular utterances. As such, the scale applied was nominal, not interval. For the purposes of calculation, an interactive online tool was used (Preacher 2001). Since the basic comparison related to how well – or how badly – respondents of different level of advancement performed on the questions pertaining to English sentence stress, the observed figures of correct and incorrect answers were entered into appropriate cells and then sums of elements within rows and within columns were computed. As a result, the following values were obtained:

*Table 3: Chi-square basis*

	Turkish year 1	Turkish year 3	Sum of elements
<b>Correct answers</b>	67.41	82	149.41
<b>Incorrect answers</b>	32.59	18	50.59
<b>Total percentages</b>	100	100	200

For the figures defined, the following chi-square values were obtained:

*Table 4: Chi-square values*

<b>Chi-square</b>	5.632
<b>Degree of freedom</b>	1
<b>p-value</b>	0.0176355
<b>Yates' chi-square<sup>5</sup></b>	4.887
<b>Yates' p-value</b>	0.02705967

The calculated p-value of 0.017 certifies to the fact that the results obtained in the survey are statistically significant. At first sight it appears that there is a relation between the experience of participants as students of English, conceived of in terms of their being a year 1 or year 3 students, and their performance in the experiment. This is a substantially general observation and more detailed comments are necessary here.

The specific survey structure analysis for both groups of respondents is depicted in Table 5. The table presents the actual data for each question separately as obtained from the participants. The questions differed in terms of random guess scores, yet the correlation between this variable and the result obtained (the facility index figures) is not always straightforward. As could be expected, where the choice was between only two options, the scores are rather high. However, this is hardly surprising especially in view of the fact that the questions related to whether two sentences sound the same or different (Q 1 and 2) or to whether the items in the utterance sound equally important (Q 13). Yet, even with questions

<sup>5</sup> This correction is often employed to improve the accuracy of the null-condition sampling distribution of chi-square.

where guessing was not very easy, namely those with multiple options provided, the scores were frequently relatively high (e.g. Q 11 for both groups, Q 4-6 for Year 3). The standard deviation figures, on the other hand, demonstrate that there were considerable differences among the individual participants in both groups in terms of their perceptual abilities. Still, they were on the whole better with purely auditorily orientated tasks than with those involving actual meaning or attitude interpretation.

**Table 5:** Survey structure statistics and analysis.

Question number	YEAR 1				YEAR 3			
	Attempts	Facility index	Standard deviation	Random guess score	Attempts	Facility index	Standard deviation	Random guess score
Q 1	38	89.47	22.62	50.00%	36	100	0	50.00%
Q 2	38	89.47	22.62	50.00%	36	97,22	16.66	50.00%
Q 3	38	68.42	47.10	50.00%	36	88,88	47.10	50.00%
Q 4	38	68.42	47.10	33.33%	36	86,11	47.10	33.33%
Q 5	38	73,68	44.62	33.33%	36	86,11	44.62	33.33%
Q 6	38	52,63	50.60	33.33%	36	69,44	50.60	33.33%
Q 7	38	57,89	50.03	33.33%	36	75	50.03	33.33%
Q 8	38	60,52	49.53	33.33%	36	75	49.53	33.33%
Q 9	38	52,63	50.60	33.33%	36	72,22	50.60	33.33%
Q 10	38	52,63	50.60	25%	36	69,44	50.60	25%
Q 11	38	73,68	44.62	25%	36	83,33	44.62	25%
Q 12	38	68,42%	47.10	25%	36	75	47.10	25%
Q 13	38	84,21	36.95	50%	36	94,44	36.95	50%
Q 14	38	61,15	48.88	20%	36	77,77	48.88	20%
Q 15	38	57,89	50.03	20%	36	77,77	50.03	20%
TOTALS	38	67.41	9.45	---	36	82	13.72	---

Mediana: 68.42

Mediana: 78

Without further going into details of the specific calculations, let us present certain dominant tendencies. The first observation to be made is that the average value score of insufficient interpretation of the meanings related to English utterances is attributable to the novelty of the phenomenon in the case of Year 1 respondents. The erroneous judgments made by the informants may be stemming from their relative uncertainty in the command of English – they do not feel particularly competent in their responses, but may also be associated with other factors, such as (too) much weight attached to performing well (information acquired through personal interviews via online communicators). The different mediana values in both groups also demonstrate that Year 3 students felt much more confident in their judgments as well as more sensitive to the minor intricacies.

A closer inspection of the attempts with average scores (between 71 to 80%) reveals that in a vast majority of cases the ratio of good to erroneous answers was directly correlated to the type of question difficulty. The discrimination efficiency was highest with questions showing contrastive/corrective phrasal stress as opposed the default reading.

To further compare the validity of these observations with what was determined in the case of Polish speakers of English as a Foreign language, a further comparison of results was computed. The scores obtained in a similar quiz in the spring of 2014 by Polish advanced learners of English were juxtaposed with the results of the Turkish students perceptions. It needs to be added, though, that the research on Polish students sentence stress awareness tried to correlate their perception of this phenomenon and its meaning contribution in Polish and in English. The data on English material had to be extrapolated. On the face value it looks alarmingly worse than that of the Turkish subjects. It needs to be borne in mind, however, that the Polish respondents had to simultaneously deal with two languages and two sets of sentences. Both groups were largely phonetically naive and comparably untrained.

*Table 6: Chi-square basis for Turkish and Polish respondents*

	Turkish participants	Polish participants	Sum of elements
<b>Correct answers</b>	74.63	57.86	126.51
<b>Incorrect answers</b>	25.37	42.14	67.51
<b>Total percentages</b>	100	100	200

Again, the non-parametric statistical chi-square test was used to evaluate the statistical significance of the actual scores.

*Table 7: Chi-square values for Turkish and Polish respondents*

<b>Chi-square</b>	6.288
<b>Degree of freedom</b>	1
<b>p-value</b>	0.01215581
<b>Yates' chi-square</b>	5.561
<b>Yates' p-value</b>	0.01836492

The calculated p-value of 0.012 certifies to the fact that the results obtained in the survey are once again statistically significant with a potential to be generalised beyond the research sample. That is strengthened by the fact that the number of respondents in both experiments was comparable.

### **3.4. Interpretation**

The interpretation of the survey results proves rather problematic. First of all, the survey involved recognition tasks rather than production. This necessarily eliminates certain broad or wide-ranging conclusions. In personal interviews, when trying to explain their willingness to participate in the survey, the respondents claimed they wanted to find out whether they can hear what is being said to them and interpret it unambiguously, that, in turn could constitute some initial training in actually using this element of sentence intonation more consciously. A good number of them actually proved very sensitive to this characteristic feature when asked about the context in which they would be likely to utter a particular sentence, for example as a warning, mild suggestion, to signal irritation etc. This, however,

was mostly observed with third year students. They also stressed, though, that their impression is that in English it all sounds markedly different than in Turkish.

As for discriminating between the sentences where the only difference was in the position of sentence stress: one in its default, sentence-rightmost position, in the other it was moved leftwards to signal narrow focus, the respondents proved very perceptive, the success ratio was consistently rather high for both groups.<sup>6</sup> This implies that their perceptive and discriminating skills have been put to good use. We can therefore legitimately claim that Turkish advanced speakers of English can auditorily discriminate between utterances with sentence prominence marked through sentence stress in English and they can recognize that an utterance contains an element which is more prominent than those in its neighbourhood. They also perceive the difference in marking the location of new and/or important information by a conspicuous change in pitch and the absence of such prosodic marking where less important or given information is communicated (Caspers 2014).

As to the speakers' ability to interpret the additional shades of meaning or focus communicated through the different positions of the accent, they turn out to be generally better when it comes to the non-default accent position. This is conceivably due to the fact that English is not their primary means of (oral) communication, being reduced to either class or not numerous social situations. The more extensive and frequent online communications in English are of no significance here, the oral element being utterly absent there. A closer analysis of the informants' choices reveals their confusion with notions such as politeness, slight boredom, distinguishing between a simple statement of a fact and a suggestion as to the proposed course of action. It appears that the year I students have never before been made aware that such details can be communicated via accent and/or intonation, while Year III group could vaguely remember – but not immediately put to use – the minimal training they received two years before. In their opinion, this could be the factor that allowed them to generally perform better in the quiz. Another factor could possibly be that the grammatical structure of the English sentences differs from what they are familiar with in their own language, also in terms of default and marked positions for main accent. In their opinion, they were constantly involuntarily first looking for a verb.

The most difficult to determine is the possibility of interactional relationship between the relevant abilities in the two languages, English and Turkish: it cannot be unequivocally stated that better perception and meaning awareness created through sentence accent in their native language contributes to increasing the interpretational skills in the foreign one. Rather, those who obviously underachieved reported that it happened because they were constantly thinking of Turkish equivalents of the relevant sentences and the meanings thus created. Yet, in view of the fact that sentence prominence in Turkish is marked solely through prosodic means rather than sentence structure, it appears logical that there must be some relationship involved. What exactly is the nature of this interaction, and how powerful it can be, may possibly be better revealed when the production side of communication is examined. Even if we accept the view that Turkish may belong to the “non-plastic” (or “less-plastic”) languages (Harris 2014), the recent research findings of Çetin and Coşkun (2016) strongly suggest that a

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<sup>6</sup> Compare averages for questions 4 and 5 in Table 5, likewise questions 10 to 12 there.

good degree of prominence freedom is effected in the language, supporting their statement with experimental research and machine pattern recognition devices. As a result they state the following:

‘Reserving the position before the verb for the stressed word or phrase as stated in many grammar and text books can only serve the function of limiting the creativity of Turkish language. This also reduces the verbal expression power of a language.’

(Çetin and Coşkun 2016: 7)

‘In spoken discourse, proximity of the element to be emphasized to the verb and putting stress on the same word may lead to emergence of compounded stress. However, it is not necessary to put the main stress on a word or phrase only because it is next to the verb.’

(Çetin and Coşkun 2016: 8)

Therefore, it may at least be suspected that the documented growing plasticity of Turkish has a bearing on the actual awareness and performance of Turkish EFL speakers when it comes to English.

Finally, when comparing the achievements of Polish respondents in 2014 (Buczek-Zawiła 2015) and those of Turkish subjects, it looks like the latter outperformed the former. The demographic variables were similar in both experiments, and so was their competence in English. However, the Polish respondents had to simultaneously deal with two languages and two sets of sentences, which may have contributed to their poorer results in English. It also appears that Turkish, as a ‘non-plastic’ language, i.e. one in which the location of accents is more structurally constrained and largely intertwined with word order, produces in fact a more contrastive background against which some discursal information is coded. It may thus be easier for speakers of Turkish to become sensitive to auditive prosody in a language where primary accents in utterances are primarily determined by pragmatic factors (Caspers 2014: 29).

#### **4. Conclusions**

This study confirmed the predictions that language users of a younger generation, that is those whose opportunities for actually using English and its command are on the whole much greater than those of their parents, do not fully realize that during speech they may be communicating shades of meaning not expressed through lexis or sentence structure. That seems to be a true prediction for Turkish as well as Polish advanced speakers of EFL. They are competent in the structure of language(s), they may even be familiar with certain non-standard uses of that structure, but the idea to express more of what is in the mind simply through playing with the prosodic domain is not well-established among them. Additionally, since Turkish apparently belongs to languages that do not exploit accent distribution consistently for informational purposes, the speakers had to overcome the limitations stemming from cross-linguistic variability and potential prosodic transfer.

The ratio and the interaction may turn out to be different if a similar survey was conducted again, after some time. The new awareness, reportedly acquired through the present survey, can be strengthened through more practice in authentic social and



professional communicative situations. A sort of unification of language structure and use as accepted in the language societies they function can be seen as desirable.

Additionally, it needs to be remembered that the judgments only concerned individual sentences, taken out of longer stretches of discourse. This fact may have contributed to the confusion evident in some of the answers provided.

Therefore it may prove interesting to see if the awareness of the role and meaning of sentence stress, and of other suprasegmental features can be developed and transformed into actual productive use.

## References

- Archibald, J. 1997. The acquisition of second language phrasal stress: a pilot study. In S.J. Hannahs, and M. Young-Scholten (eds.), *Focus on phonological acquisition*, 263-289. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Buczek-Zawiła, A. 2015. Do they know what they are saying? Sentence stress awareness of phonetically-untrained speakers. *Linguistica Silesiana* 36: 253-274.
- Caspers, J. 2014. Pitch accent placement in Dutch as a second language. In J. Caspers, Y. Chen, W. Heeren, J. Pacilly, N.O. Schiller, and E. van Zanten (eds.), *Above and beyond the Segments. Experimental linguistics and phonetics*, 28-41. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Çetin, D., and M.V. Coşkun. 2016. Turkish sentence stress. *The International Journal of Research in Teacher Education* 7(2): 1-8.
- Göksel, A., and A. Sumru Özsoy. 2000. Is there a focus position in Turkish? In A. Göksel, and C. Kerslake (eds.), *Studies on Turkish and Turkic Languages*, 219-228. Wiesbaden: Harrassowitz.
- Göksel, A., and C. Kerslake. 2005. *Turkish. A Comprehensive Grammar*. London: Routledge.
- Harris, K. 2014. The Prosodic Marking of Givenness in English and Italian: A Comparative Study. *Newcastle and Northumbria Working Papers in Linguistics* 20: 28-43.
- Ladd, D. 2008. *Intonational phonology*. Cambridge: Cambridge University Press.
- Mott, B. 2005. *English Phonetics and Phonology for Spanish Speakers*. Barcelona: Publicacions i Edicions de la Universitat de Barcelona.
- Nilsenová, M., and M. Swerts. 2012. Prosodic Adaptation in Language Learning. In J. Romero-Trillo (ed.), *Pragmatics and Prosody in English Language Teaching*, 77-96. Dodrecht: Springer.
- Preacher, K.J., 2001. Calculation for the chi-square test: An interactive calculation tool for chi-square tests of goodness of fit and independence [Computer software]. Available from <http://quantpsy.org>. [accessed: 17.09.2015]
- Sawicka, I. 1988. *Fonologia konfrontatywna polsko-serbsko-chorwacka*, Wrocław: Ossolineum.
- Szwedek, A. 1989. Funkcja akcentu zdaniowego. *Rozprawy Komisji Językowej XXXV*: 171-178.

## Appendix: the quiz format

(the actual sentences are marked in italics)

1. Do these two sound the same or different (A and B)?
2. In which of the two utterances (A and B) it took longer to find the mysterious thing?
3. Which of the two (A or B) sounds more polite and nicer?
  - A *Is this what you're looking for?*
  - B *Is **this** what you're looking for?*

4. This utterance (C) can most probably be heard in which context?  
 a. A: She didn't come to see us    B: She isn't .....  
 b. Even she wouldn't believe your story, she .....  
 c. You may be surprised to find out she .....  
     C    *She isn't that stupid.*
5. This utterance (D) can most probably be heard in which context?  
 a. A: She didn't come to see us    B: She isn't .....  
 b. Even she wouldn't believe your story, she .....  
 c. You may be surprised to find out she .....  
     D    *She isn't **that** stupid.*
6. This utterance (E) may be interpreted as:  
 a. Statement of a fact: I do not decide here  
 b. A little bit of speaker anxiousness ("Leave me alone")  
 c. A good piece of advice – I do not make decisions here  
     E    *Don't talk to me, Bob's the person you have convince.*
7. Which of the utterances: F, G or none is the expected answer or reaction in the context given below:  
     \_\_\_\_\_. You've given him a peach!
8. Which of the sentences: F, G or none is the expected answer or reaction in the context given below:  
     Are you sure he can do it with an apple?
9. Which of the sentences: F, G or none is the expected answer or reaction in the context given below:  
     He's a weakling, he can't even break an apple into halves!  
     F    *He can break an **apple** into two.*  
     G    *He **can** break an apple into two.*
10. Match what you hear in H to the interpretations given below:  
 a. If were you, I would do it  
 b. In the normal course of events this will be your duty  
 c. No, not him, it's your task  
 d. This is my opinion  
     H    *I think you should try it.*
11. Match what you hear in I to the interpretations given below:  
 a. If were you, I would do it  
 b. In the normal course of events this will be your duty  
 c. No, not him, it's your task  
 d. This is my opinion  
     I    *I think **you** should try it.*

12. Match what you hear in J to the interpretations given below:
- If were you, I would do it
  - In the normal course of events this will be your duty
  - No, not him, it's your task
  - This is my opinion
- J     *I think you **should** try it.*
13. In this utterance (K) all words sound equally important: Yes/NO
- K     *My sister doesn't like apples.*
14. Choose the appropriate end to utterance L from the options provided
- ..., your sister is a different matter
  - ..., my wife, my daughter – they are a different story
  - ..., she prefers pears
  - ..., she loves them dearly and eats tons!
  - ..., she simply hates them
- L     *My sister doesn't like apples.*
15. Choose the appropriate end to utterance M from the options provided
- ..., your sister is a different matter
  - ..., my wife, my daughter – they are a different story
  - ..., she loves them dearly and eats tons!
  - ..., she prefers pears
  - ..., she simply hates them
- M     *My sister doesn't **like** apples.*

## Some reflections on Chomsky's notion of reference

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### Abstract

In this paper, I will focus on Chomsky's interpretation of the notion of reference. I will summarize Chomsky's criticisms against the externalist interpretation of such notion, and I will then focus on the internalist (and syntactic) interpretation that the MIT linguist provides. Then I will focus on the relation between the internalist interpretation and the notion of truth, discussing in particular Casalegno and Hinzen's objections: I will point out that truth does not represent a particular problem for the internalized reference. Finally, I will show how Chomsky explains, inside the internalist perspective, the phenomenon of communication. In Conclusions, I will sketch two important points.

**Keywords:** internalized reference, internalist vs. subjective truth, communication, reference vs. referential acts, constitutional uniformity of speakers, I-language, truth conditions

### 1. Introduction

The notion of reference is relevant in Chomsky's thought for at least three reasons: because it represents a topic of debate between the MIT linguist and many scholars; because it is the crucial notion of Binding Theory (BT, Chomsky 1981), especially in the Minimalist Program (see Chomsky 1995: 211); and because Chomsky has provided an internalist interpretation of this notion.

Since the Seventies, Chomsky has often judged the notion of reference interpreted as a hypothetical relation between expressions and objects as a non-scientific notion, which has no place in the scientific discourse (while it has in the philosophical debate). This position was expressed by Chomsky to answer against those scholars who sustained that his, of Chomsky, use of the notion of logical form was inadequate, since it did not involve the notion of reference. In fact, the logical form (which should be written as "Logical Form", to point out that we are dealing with a technical notion of generative grammar) used by Chomsky describes only those semantic aspects which are determined by the syntactic structure of the sentence (like quantifier raising, scope relations, etc.), ignoring many other semantic contents which are usually expressed by the logical form used in the philosophical tradition, since Frege to Williamson. To stress the distinction between the traditional logical form and the

notion used in generative grammar, in a first time Chomsky used the notion of *syntax of logical form* (see Rizzi 1978: 168), while then he introduced the (technical) notion of Logical Form. In the same time, however, he defended his criticism against the notion of reference, that I have just mentioned.

The notion of reference is the crucial notion of BT. As it is well-known, BT is an attempt to describe the universal restrictions to the coreferential relations between the syntactic constituents of a hierarchical syntactic tree (see Chomsky 1981, Reuland 2001). Actually, in a first time the notion privileged by Chomsky was that of index (see i.e. Chomsky 1981: 6): BT explained when two or more constituents can be coindexed, and when they cannot. However, since the Minimalist Program, the notion of index has been replaced by the notion of reference (see i.e. Chomsky 1995: 211), and BT has been formulated focusing on the probe-goal relation between syntactic constituents (see i.e. Chomsky 2007, 2008). Since the Eighties (see i.e. Chomsky 1986: 44-45), Chomsky has interpreted the notion of reference used in BT as a *syntactic* notion, which could be conceived as a relation between expressions and internal entities of some (unspecified) cognitive domain (see i.e. Chomsky 2000: 37-39). Chomsky assumes, in other words, that the notion of reference can be interpreted only as an internal notion, and every theory of reference which supports a hypothetical relation between words and *external objects* must be rejected (so, both the Fregean theory and the Direct Reference Theory). Furthermore, Chomsky explicitly points out that it would be perverse to try to find a relation between the internal (mental) entities and the external objects in the world.

Some scholars (see i.e. Casalegno 1997, Hinzen 2002) pointed out that Chomsky's internalized reference does not permit to understand how communication is possible. Let's summarize the problem this way: if the reference is an individual and internal relation, how do speakers converge in their truth judgments and in their use of language? In other words: how do speaker can successfully communicate? Chomsky (2000) briefly focuses on communication: I will try to reconstruct his argument and to stress its relation with Davidson's theory of language.

## 2. Chomsky's criticism against the notion of reference

The notion of reference interested Chomsky since *Syntactic Structures*, where the MIT linguist supports the idea that the notion of meaning can be reduced to the notion of reference:

'To understand a sentence we must know much more than the analysis of this sentence on each linguistic level. We must also know the reference and meaning of the morphemes or words of which it is composed; naturally, grammar cannot be expected to be of much help here. These notions form the subject matter for semantics.' (103-104)

'Goodman has argued – to my mind, quite convincingly – that the notion of meaning of words can at least in part be reduced to that of reference of expressions containing these words.' (103, n. 10)

In particular, Chomsky thinks that a theory of meaning could be constructed on the notion of reference, as Goodman (1943, 1954) suggested:

‘Goodman’s approach amounts to reformulating a part of the theory of meaning in the much clearer terms of the theory of reference, just as much of our discussion can be understood as suggesting a reformulation of parts of the theory of meaning that deal with so-called “structural meaning” in terms of the completely nonsemantic theory of grammatical structure. Part of the difficulty with the theory of meaning is that “meaning” tends to be used as a catch-all term to include every aspect of language that we know very little about. Insofar as this is correct, we can expect various aspects of this theory to be claimed by other approaches to language in the course of their development.’ (104)

Chomsky tells us that a semantic theory based on the notion of reference would allow a reformulation of the “structural meaning” in non-semantic terms. By “structural meaning”, Chomsky means those semantic aspects determined by the syntactic structure: for example, to explain the meaning of *to hit*, we must consider such notions as subject and object, which are grammatical (syntactic) notions; consequently, “the syntactic devices available in the language are being used fairly systematically” (Chomsky 1957: 104). The problem, when we deal with the structural meaning, is that “to assign ‘structural meanings’ to grammatical categories or constructions just as ‘lexical meanings’ are assigned to words or morphemes, is a step of very questionable validity” (104). Chomsky’s thought can be summarized this way: we cannot deny that the grammatical structure contributes in determining the (structural) meaning; however, we do not dispose of any theory which explains the meaning of the single syntactic constituents of a sentence. This is evident, Chomsky says, if one considers that the notion of meaning is used to refer to several aspects which instead should remain separate. To sustain that it is impossible to establish the meaning of the single lexical items, Chomsky proposes the following argumentation. If *P* is a lexical entry, we can adopt two hypothesis: we can suppose that the meaning of *P* is fix, so that in every occurrence *P* maintains its meaning; or we can assume that every occurrence of *P* has a different meaning, even if the difference in the meaning is only partial. In this latter case, Chomsky says, we should explain how two occurrences (two identical phonetic expressions) have the same meaning; to do so, however, we should dispose of a rigorous method to measure the degree of convergence of two meanings, a method that we do not have. In the former case, instead, we should assume that the constant meaning of *P* can be expressed by a fixed set of words, combined among them; but this way we would fall in the circularity (Chomsky 1957: 97-98). In fact, the meaning of *P* would consist in the combination of a specific set of other lexical items  $P_1, \dots, P_n$ , which should be further decomposed, etc. One must remind that Chomsky is not mentioning the Quinean argument against the analytic-synthetic distinction or the componential analysis of concepts and meaning. This analysis, in fact, would have been formulated in the Sixties by Katz and Fodor (1963, see also Katz 1972), and would have been immediately hardly criticized (see i.e. Weinreich 1966). Quine’s radical interpretation argument, instead, even if very influential in the philosophical debate, is not relevant for Chomsky, who has always criticized it. According to Chomsky, the analysis of our linguistic intuitions let us understand that there is “a rather clear distinction between truths of meaning and truths of fact”, a distinction determined by the “a priori framework of human thought” which “provides necessary connections among concepts, reflected in connections of meaning, among words and, more broadly, among expressions involving these words”. Quine’s conclusion, in fact,

‘has been supported by reflection on an artificially narrow class of examples; among them concepts that have little or no relational structure. [...] When we turn to concepts with an inherent relational structure such as *persuade* or *chase*, or to more complex syntactic constructions such as those exhibiting referential dependence or causative and relative constructions, then it seems that semantic connections are readily discerned.’

(Chomsky 2000: 63-64)

After *Syntactic Structures*, Chomsky’s faith in a theory of reference rapidly disappeared. Since the Seventies, in fact, Chomsky has rejected the externalist(s) interpretation(s) of reference: according to Chomsky, to postulate a relation between words and the world is not scientific; is a “kind of neo-scholastic picture” (Chomsky 2012: 28). Chomsky (2000) devotes many reflections to the criticism against the notion of reference. I quote one:

‘A good part of contemporary philosophy of language is concerned with analyzing alleged relations between expressions and things, often exploring our intuitions about the technical notions “denote”, “refer to”, “true of”, etc. said to hold between expressions and something else. But there can be no intuitions about these notions, just as there can be none about “angular velocity” or “protein”. [...] it is not at all clear that the theory of natural language and its use involves relations of “denotation”, “true of”, etc. in anything like the sense of the technical theory of meaning.’

(Chomsky 2000: 130)

Chomsky’s thought can be summarized this way: the notion of reference is not a common sense or a scientific notion; it is a pseudo-scientific notion, which cannot enter in the theoretical apparatus of the naturalistic analysis (see Casalegno 1997: 356).

The externalized notion of reference, instead, can be part of the analysis of artificial languages. Chomsky thinks that the notion of *Bedeutung* is adequate for the scientific languages. In these languages, in fact, we can construct symbolic objects which “may well aim towards the Fregean ideal”, since they have “a semantics, based on the technical notion of *Bedeutung*, a relation between symbols and things” (Chomsky 2000: 131). This is not possible, instead, in natural language, where

‘There are complex conditions – poorly understood, though illustrative examples are not hard to find – that an entity must satisfy to qualify as a “naturally nameable” thing: these conditions include spatiotemporally contiguity, *Gestalt* qualities, functions within the space of human actions [...] A collection of leaves on a tree, for example, is not a nameable thing, but it would fall within this category if a new art form of “leaf arrangement” was devised and some artist had composed the collection of leaves as a work of art. He could then stipulate that his creation was to be named *serenity*. Thus it seems that there is an essential reference even to willful acts, in determining what is a nameable thing.’

(Chomsky 1975: 43-44)

and where

‘Even the status of (nameable) thing, perhaps the most elementary concept we have, depends crucially on such intricate matters as acts of human will, again something understood without relevant experience, determined by intrinsic properties of the language faculty and others. A collection of sticks in the ground could be a (discontinuous) thing – say, a picket fence, a barrier, a work of art. But the same sticks in the ground are not a thing if left there by a forest fire.’

(Chomsky 2000: 127)

Briefly, according to Chomsky, *relata* do not exist (see Voltolini 2001).

To sustain his criticism against the notion of reference, Chomsky has proposed some examples which appear frequently in his works: if one thinks to the names *London*, *journal* or *book*, Chomsky says, one must recognize that these words can be used to denote different things:

‘Such notions as desk or book or house, let alone more “abstract” ones, are not appropriate for naturalistic inquiry. Whether something is properly described as a desk, rather than a table or a hard bed, depends on its designer’s intentions and the ways we and others (intend to) use it, among other factors. Books are concrete objects. We can refer to them as such (“the book weighs five pounds”), or from an abstract perspective (“who wrote the book?”; “he wrote the book in his head, but then forgot about it”); or from both perspective simultaneously (“the book he wrote weighed five pounds”; “the book he is writing will weigh five pounds if it is ever published”). If I say “the deck of cards, which is missing a Queen, is too worn to use”, that deck of cards is simultaneously taken to be a defective set and a strange sort of scattered “concrete object,” surely not a mereological sum. The term *house* is used to refer to concrete objects, but from the standpoint of special human interest and goals and with curious properties. A house can be destroyed and rebuilt, like a city; London could be completely destroyed and rebuilt up the Thames in 1,000 years and still be London, under some circumstances. It is hard to imagine how these could be fit concepts for theoretical study of things, events, and processes in the natural world. Uncontroversially, the same is true of matter, motion, energy, work, liquid, and other common-sense notions that are abandoned as naturalistic inquiry proceeds [...]’

(Chomsky 2000: 20-21)

It can be noticed that in these examples Chomsky does not distinguish between common names and proper names. The philosophical tradition, since Mill to Kripke and Putnam, shows that while common names denote their *relata* in virtue of some properties of them, proper names directly denote specific objects: the meaning of proper names is their referent (see i.e. Putnam 1975, 1992, Kripke 1972, 1980). Chomsky seems to radicalize this conclusion, and extend it to common names too: according to Chomsky, not only proper names but also common names are not adequate for the distinction between *Sinn* and *Bedeutung*. Let’s notice, however, that this conclusion is not fully satisfactory: in fact, even if it is hard to establish how *book*, *journal*, etc. denote their references, in the same time one must recognize that they do not denote *radically different* entities; perhaps, they denote *different aspects* of the same content (the “concrete” aspect of a book, and the “abstract” one: notice, furthermore, that we usually have only the “abstract”-“concrete” couterposition).

The *pars construens* of Chomsky’s theory concerning reference consists in two hypothesis: the idea that the relation of reference is a syntactic and internal notion (see the next section) and the idea that speakers, not words, refer to objects in the world (see Delfitto and Graffi 2005: 19). As Chomsky (2000: 42) says, “there seems to be little reason to that a” notion of reference – intended as a relation between words and the world – “can be given a coherent and useful formulation as a relation holding between expressions and some kind of things, divorced from particular conditions and circumstances of referring. If it is so, there will also be no reasonable inquiry into a notion of “sense” or “content” that ‘fixes reference’ (*R*), at least for natural language”. The linguistic behavior of speakers is the topic of psycholinguistics, cognitive science, and other disciplines, and we cannot expect to study it by mental experiments. Concerning Putnam’s Twin Earth experiment, for example, Chomsky says that



‘In one version [of Putnam’s experiment], we are to explore our intuitions about the extension or reference of the word “water” on Twin Earth, where speakers identical to us use it to refer to XYZ, which is not H<sub>2</sub>O. But we can have no intuitions about the question, because the terms *extension*, *reference*, *true of*, *denote*, and others related to them are technical innovations, which mean exactly what their inventors tell us they mean: it would make as little sense to explore our intuitions about tensors or undecidability, in the technical sense.’

(Chomsky 2000: 148)

This kind of experiments is useless in the naturalist inquiry, and does not help the formulation of technical notion of reference, truth, sameness, etc.: “with its questionable invocation of natural sciences, [in Putnam’s experiment] we find that whether something is water depends on special human interests and concerns, again in ways understood *without relevant experience*” (Chomsky 2000: 128).

### 3. The internalized reference

The notion of reference is the crucial notion of BT (see Chomsky 1981, Reuland 2001). In the Eighties, Chomsky did not always use the notion of reference, but more often he talked about co-indexicalization; however, since the Minimalist Program (see in particular Chomsky 1995: 211, but also 2007 and 2008), Chomsky has explained the binding relation in terms of co-reference. This notion has been interpreted by Chomsky as a *syntactic* notion, which could be defined as a “relation *R* (read “refer”) that is postulated to hold between linguistic expressions and something else, entities drawn from some stipulated domain *D* (perhaps semantic values). The relation *R*, for example, holds between the expressions *London* (*house*, etc.) and entities of *D* that are assumed to have some relation to what people refer to when they use the words *London* (*house*, etc.), though that presumed relation remains obscure”. The MIT linguist does not shed light on the ontology of such entities, but he argues that “it would be perverse to seek a relation between entities in *D* and things in the world – real, imagined, or whatever – at least, one of any generality” (Chomsky 2000: 39).

Chomsky does not explain what entities are, but we can suppose that they correspond to concepts or to representations. On my opinion, the former hypothesis is the most plausible; however, if it was, it would not be clear why “it would be perverse to seek a relation between” such entities and the things in the world: concepts, if they exist, *are involved* in denotation. The latter hypothesis requires instead a clarification about the notion of representation. Chomsky (2000: 170) writes that

‘The internalist study of language also speaks of “representations” of various kinds, including phonetic and semantic representations at the “interface” with other systems. But [...] we need not wonder what is represented, seeking some objectives constructions from sounds or things. The representations are postulated mental entities, to be understood in the manner of mental image of a rotating cube, whether it is the consequence of tachistoscopic presentations or a real rotating cube, or simulation at the retina in some other way; or imaged, for that manner.’

Following this quotation, representations correspond to mental entities, so that also the latter hypothesis seems plausible. Furthermore, let’s consider that Chomsky, as in the case of concepts, argues that (a) there are innate semantic representations and (b) such

representations are created by the combination of primitive elements (see Chomsky 2000: 184-189, where he answers to Putnam 1986a, b). In the interview with James McGilvray, Chomsky explicitly states that

‘the term “representation” is used in a kind of technical sense in the philosophical literature which I think basically comes back to the theory of ideas. You know there’s something out there and the impression of it becomes an idea, and then there’s a relation – so, say, in Jerry Fodor’s representational theory of mind – there’s a causal relation between *the cat over there* and the concept *cat* in your language of thought. And Kripke, Putnam, Burge have a picture roughly like that.

[...] There is some causal relation, and then, yes, it sets up the semantic relation of reference. And there is a factual question as to whether any of that happens. Obviously, there’s some causal relation between what’s outside in the world and what’s in our head. But *it does not follow that there’s a symbol-object relationship* [something like the reverse of causal one]

[...] If you look at the literature on cognitive science and neurology and so on and so forth, people are constantly talking about internal representations. But they don’t mean that there’s a connection between what’s inside and some mind-independent entity. The term “internal representation” just means that something’s inside.’ (31-32) (my emphasis)

The problem in this words is that the notion of representation and that of concept seem to be complementary, while they cannot be, as Descartes explained with his chiliagon. The distinction between concepts and representation is even more clear if we consider that no representation is associated to many concepts (let’s think i.e. to the concepts *kilogram*, *weight*, *excretion*, etc.; for a different proposal, see Prinz 2002), that we can however use. Furthermore, it is not easy to sustain that concepts like *excretion*, *kilogram* or *weight* are acquired – are learned – by a causal relation between the mind and the outside world (even if some scholars support this idea: see i.e. Borghi 2009 and Borghi and Cimatti 2009, 2010); perhaps, if we respect Chomsky’s innateness theory of concepts (see Chomsky 2000 and Piattelli-Palmarini 1986), we can assume that concepts *emerge* (like syntactic structures do) in the speakers. That the concept and the representation are two different things is even more clear if we consider that a Fodorian causal relation between concepts and objects entails the impossibility of error in recognition and denotation, contrarily to what empirical studies show:<sup>1</sup> as Putnam (1981: 19) pointed out, “one could possess any system of images you please and not possess the ability to use the sentence in situationally appropriate ways” (let’s consider, furthermore, that there are many theoretical objections against Fodor’s causal relation<sup>2</sup>).

<sup>1</sup> As Marconi (1997) explains, naming is a two steps processing, which consists in the recognition and in the recovery of the name. It is possible that only one of these steps is jointed, while the other fails, as it happens in the case of some brain-damaged patients who are able to recognize the objects but not to name them (see i.e. Warrington 1985: 341-342, Riddoch and Humphreys 1987: 132 and Shallice 1988: 292 and ff.), or *vice versa* (see i.e. Kay e Ellis 1987, Miceli, Giustolisi e Caramazza 1991, Hart e Gordon 1992).

<sup>2</sup> As Marconi (1997: 102-104) rightly points out, Fodor’s explanation of Twin Earth experiment (see Fodor 1987, 1990) does not show that the causal relation of reference (the “aboutness”) can be expressed in “nonsemantic and nonintentional terms” (Fodor 1987: 98); instead, it strongly involves the notion of intention, since “intending to refer to local samples is not a purely causal connection between a speaker and such samples”. Furthermore, the notion of asymmetry dependency that Fodor proposes to explain the case where Twin Earthians name water both XYZ – which is the water on their planet – and H<sub>2</sub>O does not respect Fodor’s

A further criticism concerns the notion of representation as used by Chomsky. This notion seems to have, for Chomsky, three different meanings: it can denote the phonetic and semantic representations that are mapped to the sensory-motor and conceptual-intentional systems (see Chomsky 2000, 2007, 2008); it can denote the syntactic representation (the X-bar) (see Chomsky 1995); or it can denote the traditional – and more ingenuous – notion of representation, like the “mental image of a rotating cube” (see Chomsky 2000: 170 just mentioned). However, while the first and the second interpretation of representation are plausible – they are technical notion of generative grammar – the third one lacks plausibility: even if it has been adopted for a time in Artificial Intelligence (see i.e. Rosenfeld 1988, Tye 1991, Meini and Paternoster 1996), the hypothesis that the representation associated to a concept is an *image* “stored” in our mind meets many criticisms: for example,

‘Images are things, not rules. Thus they cannot connect anything to anything else (in particular, they cannot connect themselves to the output of perception or compare themselves to other images or generate other images with themselves as a pattern). On the other hand, as they are things, images are particular things (there are no other kinds of things). Consequently, they are different (in some respect) from most other images of the same kind or “falling under the same concept.” Therefore, if to “fit” something else, in particular, another image, it is required that an image be exactly like it, then no image can fit most other images of the same kind. Of these two difficulties, the former is more basic, for, to repeat, even if an image were exactly like another (in some relevant sense), still a method of comparison would be needed by way of which it could be found to be exactly like it.’

(Marconi 1997: 177)

These reflections allow to stress two points. From a historical point of view, one can notice that Chomsky’s thought concerning a theory of reference rapidly change in the Seventies (compare the quotations from *Syntactic Structures* with the others). From a theoretical point of view, it seems to me that the notions of entity, concept and representation need a serious work of clarification.

#### 4. Internalized reference, truth, and communication

##### 4.1. Internalized reference and truth

The Chomskian notion of internalized reference involves two different problems. The first one concerns the truth judgments of speakers, and can be summarized by this question: if the

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assumptions: if reference was a purely causal relation, why must Twin Earthians and Earthians examine the liquids and associate to them a formula to distinguish them? Namely, if they had a causal relation with the local samples, this causal relation should permit to them to distinguish their samples from any other samples in every circumstance. The problem, in Fodor’s theory, is represented by the notion of cause: “to say that symbols of the language of thought refer to what causes them, without specifying a context which may determine which causal connections are relevant, is to say nothing at all” (Casalegno 1997, ch. 13 cited in Marconi 1997: 104). Casalegno’s objection can be appreciated considering that Fodor’s relates the causal relation of reference to the chemical properties of the liquids: *from a chemical point of view*, all the samples on Twin Earth (and on Earth) are identical among them; but *from another point of view* (position, quantity, etc.), they are completely different.

reference of expressions is internal and individual, how can speakers converge in their truth judgments? Of course, we are dealing with common truth judgments, namely with judgments concerning the truth of “simple” sentences, like *The table is brown*, *John is running*, etc. This problem has been pointed out by Casalegno (1997: 336):

‘it is unclear what must be thought, in Chomsky’s perspective, about the notion of truth. As we know, according to the tradition, reference and truth are two inseparable notions. That single words have a reference is important to determine the truth values of the sentences in which they appear. If now we reinterpret the notion of reference in an internalist perspective, as Chomsky would like, we should force to do the same with the notion of truth: we should, in other words, try to reduce the truth to a property of sentences which depends only on the internal structure [...] of the mental representations which correspond to the worlds. But it is hard to imagine such a property, and yet Chomsky does not offer any indication concerning this matter. On the other hand, if the connection between the notion of reference and that of truth failed, we could not state that the new [internalized] notion of reference “has many of the properties of the reference” (see Chomsky 1986: 44-45) intended in the traditional way, and we could not invoke the notion of reference to justify the practice of model-theoretic semantics.’ (my translation)

Casalegno’s words contains three different arguments. The first one: if we assume the internalized reference, and if truth and reference are inseparable (the truth depends on the reference), then it is necessary to provide an internalist interpretation of the truth; but this interpretation does not permit to explain the convergence of speakers in truth judgments. The second one: if the first argument is right, then the Chomskian notion of reference lacks “many of the properties of reference”, as interpreted in the philosophical tradition. The third one: if the first and second arguments are right, then it follows that the notion of truth in model-theoretic semantics cannot be justified.

It is surprising that Casalegno considers these argument relevant for criticizing Chomsky’s notion of reference. The second and the third arguments are, in fact, wrong: the aim of semantics is not to determine the truth values of a sentence; it is to express the truth conditions of a sentence. Model-theoretic semantics *does not* involve the notion of truth; it involves – and it expresses – the truth *conditions* of a sentence, judged in a specific model. So, even if we assume, as Casalegno does, that the truth depends on the reference, then this assumption is not a problem for model-theoretic semantics, which explains *when – under which conditions* – a sentence is true, not *if* it is true or false (see Dowty 1979, Bonomi 1983). As Marconi (1997: 107) pointed out, model-theoretic semantics is

‘a theory of semantic effects of composition. What MT [model-theoretic] semantics says, the kind of information it provides, concerns how composition affects meaning: what the effect is of combining certain constituents in a certain way. *In principle*, MT semantics has nothing to say concerning the constituents’ meaning; however, it has a lot to say concerning the semantic contribution of syntactic structure. MT semantics is *functional* semantics: the meaning of a linguistic expression is (expressed as) a specific function of ultimately unspecified constituents meanings. Alternatively, it could be presented as a theory of meaning for syntactic classes of linguistic expressions that does not distinguish among individual members of the same class.’

(Marconi 1997: 107)

The first argument – the relation between internalized reference and truth – has been discussed also by Wolfram Hinzen, in his *Internalism About Truth*, where the author

proposes an argument which can be summarized the following way: assuming that the notion of truth as proposed in the externalist perspective is implausible, the only alternative is to interpret it in an internalist perspective, as Chomsky does, where the concept of truth, Hinzen explains, is not a material concept, but a formal or structural concept (see also Hinzen 2003), strictly connected with the mental representations and the meta-representations generated by the computational system. Assuming, following Fodor (1998), that there does not exist a theory for the concept of truth (such concept is in fact simply given, as any primitive concept), Hinzen wonders about how it is possible to justify the objectivity of reference – namely, its realistic component in the sense of Dworkin (1996) and Nagel (1997) – inside Chomskian internalist approach. The author does not provide a solution, but he highlights that we must not think that an *internalist* version of truth corresponds to a *subjective* version of truth.

The author is right in pointing out that the internalist reference alone does not explain how speakers converge in their denotations, truth judgments, etc. However, it seems to me that Chomsky provides a sufficient answer to this problem, even if he does not deeply analyze it: he thinks in fact that denotation and reference are determined by many factors (beliefs, desires, etc.) which interact with the faculty of language and determine how speakers use the formal expressions generated by the grammar in their speech acts (see i.e. Chomsky 2000: 70 and ff.). However, no scientific theory can consider and study all these factors together, since “no one seeks to study everything” (Chomsky 2003: 290). This scepticism concerning a naturalistic account of the whole linguistic behavior pushed Chomsky to sustain that the most interesting approach for studying the linguistic behavior is that inaugurated by the philosophers of ordinary language (the later Wittgenstein, Austin, and many others) (see Chomsky 2005: 4). So, assuming the theoretical distinction between the (philosophical) notion of reference and the referential act (denomination, denotation, etc.), it is not clear why a supporter of Chomsky’s perspective should justify the objectivity of reference; eventually, she must justify the converge of speakers in their referential acts, and Chomsky has never denied that psycholinguistics, cognitive science, etc. can tell us something about such matter.

#### **4.2. Is an internalist account to communication possible?**

I have said that, according to Chomsky, reference is determined by many factors which interacts with the faculty of language, and I have pointed out that this hypothesis can be used to explain the speakers’ convergence in truth judgments and in referential acts, which represent a part of a major problem, that I can formulate this way: if the language is internal, individual and intensional – and the reference is – how can we explain the fact that through the language speakers can express their thoughts, command, ask, compose a poetry, etc.; namely, that they can communicate? This question has never particularly interested Chomsky, who has provided a brief answer that I will examine here. First of all, however, it must be reminded that, according to Chomsky, language *did not* emerge for communication. Chomsky does not agree with the adaptive hypothesis, according to which language developed for communicating:

‘The purpose of language is communication in much the same sense that the purpose of the hearth is pump blood. In both cases it is possible to study the structure independently of the function but pointless and perverse to do so, since structure and function so obviously interact. We communicate primarily with other people, but also with ourselves, as when we talk or think in words to ourselves.’

(Searle 1969: 80)

This hypothesis is rejected by Chomsky, who thinks instead that language emerged when the recursion principle was activated in the human mind (or in the brain). Recursion and discreteness are two biological isolated properties of the human species (Chomsky 2000: 52), and it is possible to assume that the emergence of language is the result of a sudden and rapid evolution of human brain: language, according to Chomsky (see i.e. 2001: 89-90), functions optimally (for a different hypothesis inside the generative perspective, see Pinker and Jackendoff 2005). As Chomsky (2000: 163) says,

‘Informal discussion of evolutionary processes makes use of such locutions as “solving problems,” but again that is not to be taken too seriously. Physical law provides narrow channels within which complex organisms may vary, and natural selection is doubtless a factor in determining the distribution of traits and properties within this constraint. A factor, not *the* factor...’

Chomsky quotes what Darwin wrote in the Introduction of the last edition of *The Origin of the Species*:

‘in the first edition of this work, and subsequently, I placed in a most conspicuous position – namely, at the close of the Introduction – the following words: “I am convinced that natural selection has been the main but not the exclusive means of modifications”. This has been no avail.’

(1859, in Gould 1982: 45)

Furthermore, Chomsky argues that the idea summarized by Searle cannot be accepted because it is not easy to draw a relation between the structure of the faculty of language (the syntactic modulo) and the communication:

‘When it can be shown that structures serve a particular function, that is a valuable discovery. To account for or somehow explain the structure of UG, or of particular grammars, on the basis of functional considerations is a pretty hopeless prospect, I would think; it is, perhaps, even “perverse” to assume otherwise.

... the need of locomotion influenced the humans developed legs and birds wing. This observation is not very helpful to the physiologist concerned with the nature of human body.’

(Chomsky 1975: 57-58)

Chomsky’s “pop up” hypothesis has implausible consequences. For example, is it plausible to assume that language, as we know it, suddenly appeared in primates, namely that a primate suddenly began to play Shakespeare’s sonnets (see Medawar 1957)? Another problem has been pointed out by Bates, Thal and Marchman (1991: 30-35), who have argued that if we deny that language is the result of an adaptive process, we can assume only two hypothesis: the divine creation or the Big Bang.

In *The Language Instinct*, Pinker defends the adaptive hypothesis from Chomsky’s attack. He states that evolution must not be represented as a chain, but as bush, so that the creatures most similar to us, the chimpanzees, could be our cousins, and not our parents.

Consequently, there have probably been many extinguished species whose members gradually developed the language. So, to assume that language is property unique to our species is like to assume that trunks are the unique property of elephants if no other animal on the Earth had the trunk. Pinker concludes that

‘Natural selection is not just a scientifically respectable alternative to the divine creation. It is the *only* alternative that can explain the evolution of a complex organ [...] [...] natural selection is the only process that can steer a lineage of organisms along the path in the astronomically vast space of possible bodies leading from a body [...] The alternatives to natural selection can, in contrast, only grope randomly.’ (360-361)

Furthermore, as Lappin *et al.* (2000a, b, 2001) pointed out, there are not empirical reason to assume, as Chomsky does, that language is a system which functions perfectly.

On the Chomskian side, there are some scholars who tried to defend Chomsky’s “pop up” hypothesis focusing on the advantages that the language would have led in the natural selection. Here is what Premack (1985: 281-282) wrote:

‘I challenge the reader to reconstruct the scenario that would confer selective fitness on recursiveness. Language evolved, it is conjectured, at a time where humans and protohumans were hunting mastodons [...] Would it be a great advantage for one of our ancestors squatting alongside the embers, to be able to remark: “Beware of the short beast whose front hoof Bob cracked when, having forgotten his own spear back at camp, he got in a glancing blow with the dull spear he borrowed from Jack”?’  
Human language is an embarrassment for evolutionary theory because it is vastly more powerful than one can account for in terms of selective fitness. A semantic language with simple mapping rules, of a kind one might suppose that the chimpanzee would have, appears to confer all the advantages that one normally associates with discussions of mastodons hunting or the like.’

Actually, the challenge is not hard. To be able to communicate has many advantages for the survival of a specie: communication allows the cooperation among the members of a group, and we can think that more and more complex messages can be generated by the recursion principle.

I do not want to focus any more on the debate concerning the evolution of language; I think that these few and inevitably incomplete quotations are useful to understand that Chomsky’s “pop up” hypothesis is as plausible (and as implausible) than the adaptive hypothesis. Anyway, let me point out an objection against the adaptive hypothesis defended by Pinker and others: if the recursion principle *is* a consequence of an adaptive process, why do not humans use such principle in all its power? In other words, what is the reason why human beings have memory limitations which prevent them to construct longer sentences (perhaps, language could consist in a single, infinite sentence)? There is a discrepancy between the potentialities of recursion and the memory limitations of human mind: how can we justify this discrepancy in the adaptive hypothesis?

Coming back to the problem of communication in the internalist approach, let’s analyze how Chomsky himself solved this problem. In the Sixties, Chomsky explained communication focusing on the notion of *homogeneous speech-community*. We read in *Aspects*:

‘Linguistic theory is concerned primarily with an ideal speaker-hearer in a completely *homogeneous speech-community*, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions, as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance.’ (3)

Since *Aspects*, many scholars argued that it was not possible to postulate a (perfectly) homogeneous speech-community. The MIT linguist answered pointing out that those who rejected the notion of homogeneous speech-community were obliged to assume or that “people is so constituted that they would be incapable of learning language in a homogeneous speech community” or that “though people could learn language in a homogeneous speech community, the properties of the mind that make this achievement possible do not enter into normal language acquisition in the real world of diversity, conflicts of dialects, etc.” (Chomsky 1980: 25-26; see also 1986: 17); however, both these conclusions are implausible. It is not clear how to judge the notion of homogeneous speech-community. Probably, it is adequate only when we look at the syntax of human language: if syntactic principles are “stored” in the faculty of language – so that they are innate – then it is plausible to say that they are perfectly shared by all the speakers (considering the activation of different parameters and the Saussurian arbitrariness of the lexicon). However, focusing on the shared syntactic principles is not sufficient to explain all the linguistic phenomena that are involved in the communication (semantic inferences processing, pragmatic principles, etc.).

The notion of homogeneous speech-community was rapidly abandoned by Chomsky. In *Rules and Representations*, the MIT linguist replaced the notion of language with the notion of grammar. Some years later, in chapter 2 of *Knowledge of Language*, Chomsky distinguishes between E-language and I-language, defined, respectively, as “a pairing of sentences and meanings [...] over an infinite range” (19-20) and “some element of the mind of the person who knows the language, acquired by the learner, and used by the speaker-hearer” (22). Fodor and Lepore (1992) argued that the notion of I-language entails that it is impossible to study communication between time slices of an idiolect. Chomsky (2000: 30) answered this way:

‘These views are not well founded. Successful communication between Peter and Mary does not entail the existence of shared meanings or shared pronunciations in a public language (or a common treasure of thoughts or articulations of them), any more than physical resemblance between Peter and Mary entails the existence of a public form that they share.

[...] It may be that when he listens to Mary speak, Peter proceeds by assuming that she is identical to him, modulo M, some array of modifications that he must work out. Sometimes the task is easy, sometimes hard, sometimes hopeless. To work out M, Peter will use artifice available to him, though much of the process is doubtless automatic and unreflected.’

During the linguistic interaction, Peter constructs a modulo M assuming that Mary is enough similar to him; he will try, so, to construct an “adequate theory” for M: “insofar as Peter succeeds in these tasks, he understands what Mary says as being what he means by his comparable expressions” (see again Chomsky 2000: 30).

Graffi (1995) pointed out many relations between Chomsky’s thought and Hermann Paul’s one (see Paul 1910, 1920). As Graffi reminds, Paul (1920: 29) explained the communication focusing on the notion of linguistic average: according to Paul (1920: 15), the



use of language determines a linguistic average drawn from the interaction between single linguistic organisms, and the mutual comprehension is possible because

‘Everything that we believe to know about the representation of another individual only rests on conclusions which have been drawn about our own. We further presuppose that the mind of the other is in the same relationship with the external world as our own mind, that the same physical impressions bring about in it the same representations as in our own, and that such representations connect with each other in the same way.’ (Graffi’s translation)

The constitutional uniformity of individuals (see Graffi 2001: 46) allows to understand Chomsky’s thought, which can be summarized this way: the communication is possible because (1) there is a generative procedure (the faculty of language) that constructs syntactic structures and (2) human beings are constitutionally uniform, so that they can read other speakers’ human behavior. This interpretation of Chomsky’s thought is supported by what the MIT linguist says about Davidson’s theory of language. According to Davidson (1986), “there is not such thing as a language, not if a language is anything like what many philosophers and linguists have supposed” (446): during every linguistic interaction, the speaker-hearer disposes of a “antecedent theory” which is modified during communication to produce a “transitory theory” (or “contingent”); however, it is not possible to define such theories by using the common notion of language. Communication consists in the ability of the speaker-hearer “to converge on a passing theory from time to time” (445). Consequently, according to Davidson, we must “abandon [...] not only the ordinary notion of language, but we have erased the boundary between knowing a language and knowing our way around the world generally [...] In linguistic communication, nothing corresponds to a linguistic competence” (445-446). Chomsky agrees with Davidson in arguing that the usual notion of language must be abandoned, but thinks that “no reason has been offered to doubt that there is a “prior theory” in the usual sense of the study of language and knowledge of language; that is, a specific generative procedure incorporated in a specific mature state of language faculty” (Chomsky 2000: 69), which corresponds, as Chomsky writes (70-73), to the I-language.

## 5. Conclusions

Let me highlight some problems which are relevant in this discussion and which do not find a solution in Chomsky’s works. First of all, even if Chomsky’s criticisms against the notion of externalized reference is plausible, Chomsky does not explain why such a notion – that of *Bedeutung* – is instead valid in the case of artificial and scientific languages: what is the difference between natural language and artificial-scientific languages? Perhaps, considering the quotations mentioned in Section 1, we could provide two answers, both of them in accordance with Chomsky’s arguments: (1) the notion of *Bedeutung* is adequate for scientific languages because the symbols of these languages denote *abstract* entities; (2) the notion of *Bedeutung* is adequate for scientific languages because in these languages the reference is rigidly established through convention. I do not know the right answer, but I think that it could be an interesting topic of discussion.

I have shown, I hope, that Chomsky's theory is immune from Casalegno and Hinzen's criticism; this does not mean, however, that Chomsky is clear in his arguments: it seems to me that to better understand Chomsky's thought it would be necessary to better define the ontology of the notions that Chomsky introduces, and their place in the generative grammar architecture. This work of conceptual clarification is necessary also to solve an important problem, namely the relation between syntax and semantics (and pragmatics) in generative grammar: how can model-theoretic semantics be interpreted in an internalist perspective? And, so, what is its role in generative grammar? These questions are crucial for the future of generative linguistics, especially if one considers the recent "semantic turn" of generative grammar (see i.e. Chomsky 2007, 2008).

## References

- Bates, E., D. Thal, and V. Marchman. 1991. In N.A. Krasnegor, D.M. Rumbaugh, R.L. Schefelbusch, M. Studdert-Kennedy (eds.), *Biological and behavioral determinants of language development*. Hillsdale: Erlbaum.
- Bonomi, A. 1983. *Linguistica e logica*. In C. Segre (ed.), *Intorno alla linguistica*, 148-171. Milano: Feltrinelli.
- Borghi, A.M. 2010. Comprensione del linguaggio: Movimento, azione, socialità. *Teorie & Modelli XVI*: 67-76.
- Borghi, A.M., and F. Cimatti. 2009. Words as tools and the problem of abstract words meanings. *Proceedings of the 31st Annual Conference of Cognitive Science Society*: 2304-2309. Amsterdam: Cognitive Science Society.
- Borghi, A.M., and F. Cimatti. 2010. Embodied cognition and beyond: Acting and sensing the body. *Neuropsychologia* 48: 763-773.
- Casalegno, P. 1997. *Filosofia del linguaggio*. Firenze: La Nuova Italia Scientifica.
- Chomsky, N. 1955. Logical Syntax and Semantics. Their Linguistic Relevance. *Language* 31(1): 36-45.
- Chomsky, N. 1957. *Syntactic Structures*. The Hague: Mouton.
- Chomsky, N. 1964. *Current Issues in Linguistic Theory*. The Hague: Mouton.
- Chomsky, N. 1975. *Reflections on Language*. New York: Pantheon.
- Chomsky, N. 1976. Conditions on Rules of Grammar. *Linguistic Analysis* 2: 303-351.
- Chomsky, N. 1977. On wh-Movement. In P.W. Culicover, T. Wasow, and A. Akmajian (eds.), *Formal Syntax*, 71-132. New York-San Francisco-London: Academic Press.
- Chomsky, N. 1980. *Rules and Representation*. New York: Columbia University Press.
- Chomsky, N. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, N. 1986. *Knowledge of Language. Its Nature, Origin and Use*. Praeger.
- Chomsky, N. 2000. *New Horizons in the Study of Language and Mind*. Cambridge MA: The MIT Press.
- Chomsky, N. 2001. *On Nature and Language*. Siena: Università degli Studi di Siena.
- Chomsky, N. 2005. Three Factors of Language Design. *Linguistic Inquiry* 36(1): 1-22.
- Chomsky, N. 2012. *The Science of Language and Mind. Interviews with James McGilvray*. Cambridge MA: Cambridge University Press.
- Davidson, D. 1986. A Nice Derangement of Epitaphs. In E. Lepore (ed.), *Truth and Interpretation*, 307-319. Oxford: Blackwell.
- Davidson, D. 1991a. Epistemology Externalized. *Dialectica* XLV: 191-202.
- Davidson, D. 1991b. Three Varieties of Knowledge. In A. Phillips Griffiths, A.J. Ayer (eds.), *Memorial Essays*, 153-166. Cambridge, MA: Cambridge University Press.
- Delfitto, D., and G. Graffi. 2005. Chomsky fra storia della scienza e filosofia del linguaggio. In N. Chomsky. 2000, trad. it. *Nuovi orizzonti nello studio del linguaggio e della mente*, 9-33. Milano: Il Saggiatore.
- Darwin, C. 1857/1968. *The Origin of Species by Means of Natural Selection*. Edited by J.W. Burrow. Harmondsworth: Penguin.
- Dworkin, R. 1996. Objectivity and Truth: You'd Better Believe It. *Philosophy and Public Affairs* 25(2): 87-139.

- Dowty, D. 1979. *Word meaning and Montague Grammar: the semantics of verb and time in generative semantics and in Montague PTQ*. Dordrecht: Reidel.
- Fodor, J.A. 1975. *The Language of Thought*. Hassocks: Harvester.
- Fodor, J.A. 1998. *Concepts: Where Cognitive Sciences Went Wrong*. New York: Oxford University Press.
- Fodor, J.A., and E. Lepore. 1992. *Holism: A Shopper's Guide*. Oxford: Blackwell.
- Goodman, N. 1949. On likeness of meaning. *Analysis* 10(1): 1-7.
- Goodman, N. 1953. On some differences about meaning. *Analysis* 13(4): 90-96.
- Gould, S.J. 1982. *The Panda's Thumb*. New York: Norton.
- Graffi, G. 1975. Equivalenti o inconciliabili? Su alcuni sviluppi recenti della linguistica trasformazionale. In U. Vignuzzi (ed.), *Teoria e storia degli studi linguistici. Atti del VII Convegno della Società Italiana di Linguistica, Roma 2-3 giugno 1973*, 2, 281-338. Roma: Bulzoni.
- Hart, J., and G. Gordon. 1992. Neural Subsystems for Object Knowledge. *Nature* 359: 60-64.
- Hinzen, W. 2003. Truth's Fabric. *Mind and Language* 18(2): 194-219.
- Hinzen, W. 2006. Internalism About Truth. *Mind and Society*, 5(2): 139-166.
- Katz, J.J., and J. Fodor. 1963. The Structure of a Semantic Theory. *Language* 39: 170-210.
- Kay, M.J., and A. Ellis. 1987. A Cognitive Neuropsychological Case Study of Anomia. *Brain* 110: 613-629.
- Kripke, S.A. 1972. Naming and Necessity. In G. Garman, and D. Davidson (eds.), *Semantics of Natural Language*. Dordrecht: Reidel.
- Kripke, S.A. 1980. *Naming and Necessity*. Cambridge, MA: Harvard University Press.
- Lappin, S., R.D. Levine, and D.E. Johnson. 2000a. The Structure of Unscientific Revolutions. *Natural Language and Linguistic Theory* 18: 665-771.
- Lappin, S., R.D. Levine, and D.E. Johnson. 2000b. The Revolution Confused: A Reply to our Critics. *Natural Language and Linguistic Theory* 18: 873-890.
- Lappin, S., R.D. Levine, and D.E. Johnson. 2001. The Revolution Maximally Confused. *Natural Language and Linguistic Theory* 19: 901-919.
- Marconi, D. 1997. *Lexical Competence*. Cambridge, MA: The MIT Press.
- Medawar, P.B. 1957. An unsolved problem in biology. In P.B. Medawar (ed.), *The uniqueness of the individual*. London: Methuen.
- Meini, C., and A. Paternoster. 1992. Understanding Language Through Vision. In P. McKeivitt (ed.), *Integration of natural language and Vision Processing, 3, Computational Models and Systems*. Dordrecht: Kluwer.
- Miceli, G., L. Giustolisi, and A. Caramazza. 1991. The Interaction of Lexical and Non-Lexical Processing Mechanisms: Evidence from Anomia. *Cortex* 27: 57-80.
- Nagel, T. 1997. *The Last Word*. New York and Oxford: Oxford University Press.
- Paul, H. 1910. Ueber Volkerpsychologie. *Suddeutsche Monatshefte* 10: 363-373.
- Paul, H. 1920. *Prinzipien der Sprachgeschichte*. Halle: Niemeyer.
- Piattelli-Palmarini, M. 1986. The Rise of Selective Theories: A Case Study and Some Lessons from Immunology. In W. Demopolous, and A. Marras (eds.), *Language Learning and Concept Acquisition: Foundational Issues*, 117-130. Norwood, N.J.: Ablex.
- Pinker, S. 1994. *The Language Instinct*. New York: Harper Perennial Modern Classics.
- Pinker, S., and R. Jackendoff. 2005. The Faculty of Language: What's Special About It? *Cognition* 95: 201-236.
- Premack, D. 1985. *Gavagai! or the future history of animal language controversy*. Cambridge, MA: The MIT Press.
- Prinz, J.J. 2002. *Furnishing the Mind. Concepts and Their Perceptual Basis*. Cambridge, MA: The MIT Press.
- Putnam, H. 1975. The Meaning of 'Meaning'. In H. Putnam (ed.), *Philosophical Papers, 2, Mind, Language and Reality*, 215-271. Cambridge, MA: Cambridge University Press.
- Putnam, H. 1986a. Meaning Holism. In L.E. Hahn, and P.A. Schilpp (eds.), *The Philosophy of W.V.O. Quine*, 405-426. Open Court: La Salle.
- Putnam, H. 1986b. Meaning in Our Mental Life. In E. Ullmann-Margalit (ed.), *The Kaleidoscope of Science*, 17-32. Dordrecht: Reidel.
- Putnam, H. 1988. *Representation and Reality*. Cambridge, MA: The MIT Press.
- Putnam, H. 1992. Replies. *Philosophical Topics* 20: 347-408.
- Quine, W.V.O. 1951. Two Dogmas of Empiricism. *The Philosophical Review* 60: 20-43.

- Rizzi, L. 1978. Chomsky e la semantica. *Studi di grammatica italiana* 7: 161-182. Firenze: Accademia della Crusca Edizioni.
- Reuland, E. 2001. Primitives of Binding. *Linguistic Inquiry* 32(3): 439-492.
- Riddoch, M.J., and G.W. Humphreys. 1987. Visual Object Processing in Optic Aphasia: A Case of Semantics Access Agnosia. *Cognitive Neuropsychology* 4: 131-185.
- Rosenfeld, A. 1988. Computer Vision. *Advances in Computers* 27: 265-308.
- Searle, J.R. 1969. *Speech Acts*. London: Cambridge University Press.
- Shallice, T. 1988. *From Neuropsychology to Mental Structure*. Cambridge, MA: Cambridge University Press.
- Tye, M. 1991. *The Imagery Debate*. Cambridge, MA: Cambridge University Press.
- Voltolini, A. 2001. Why the Computational Account of Rule-Following Cannot Rule Out the Grammatical Account. *European Journal of Philosophy* 9(1): 82-105.
- Warrington, E.K. 1985. Agnosia: The Impairment of Object Recognition. In J.A.M. Frederiks (ed.), *Clinical Neuropsychology, Handbook of Clinical Neurology*, 333-349. Amsterdam: Elsevier Science Publishers.
- Weinreich, U. 1966. Explorations in Semantic Theory. In T.A. Sebeok (ed.), *Current Issues in Linguistics*, 3, 395-798. The Hague: Mouton.

# Being at home: Global citizenship in Norwegian schools. A study of children's poems

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## Abstract

The paper addresses the question of self-perceived identity in children attending international schools in Norway. In this population, the distinction between “home culture” and “host culture” is no longer relevant, since most of the children represent “hyphenated” (e.g. Asian-British or American-Scandinavian) or merged nationalities and cultures. The goal of the study is to investigate how these pupils define themselves and the notion of “home”. To achieve at least a preliminary picture of the children's self-perception, the authors have analysed poems on two topics: *Me* and *Home*, written by pupils of an international school and a Norwegian school, both informant groups aged 11-13. A semantic analysis of the poems indicates that the international school children present strong assertions of individual identity as defined against societal roles, while the Norwegian school pupils do not conceptualize identity formation as a struggle and their poems reflect a high degree of social, familial and national integration.

**Keywords:** identity, international schooling, self-perception, multicultural network, children's poems, semantic associations

## 1. Introduction

During the last three decades, the issue of children growing up in multicultural environment has attracted researchers' attention in several scientific fields: sociology, psychology, intercultural studies and linguistics, just to mention the most prominent areas. Even if globalization is by no means a modern (20<sup>th</sup> and 21<sup>st</sup> century) phenomenon, we are confronted today with an unprecedented acceleration of ethnic migration and intercultural contacts. Both are enhanced by technological and economic development, including the accessibility of cheap travel, the increasing internalisation of commercial companies, and the widespread use of electronic media.

All these factors contribute to the fact that the issue of cultural identity has become much more intricate than it was in the midst of the 20<sup>th</sup> century. Methods focusing on differences between “home culture” and “host culture” are no longer relevant, if the subjects of the study have grown up in a multilayer and multidimensional cultural network. Joerchel (2006: 1),

following Hall, Held and McGrew (1992), emphasises the need for research involving “hyphenated individuals”, for example Asian-British, African-American, Turkish-German. Research from Norway (Østberg 2003) indicates that this work is well under way, with young people embracing both hyphenated and merged identities. Some evidence (Block 2007, Darvin and Norton 2015) suggests that the very notion of an identity integral to self-representations may be interrogated among some multilingual and multi-cultural populations.

## 2. Background: International schooling

While schools for expatriate children have their roots in the 19<sup>th</sup> century, the accelerating pace of globalisation and mass migration has led to a dramatic rise in the numbers of such schools. In addition, international schooling is in the process of transforming its scope. Changes in structure, goals, curriculum, students and teachers have transformed international schools from institutions designed to teach the children of diplomats, international business people and other expatriates to institutions serving not only this clientele but, increasingly, local children and young people from families preferring an internationally-oriented education for their children. Thirty years ago, 80% of the children and young people attending international schools were foreign passport holders. Today, 80% of those attending international schools carry host country passport (Brummit and Keeling 2013). International schools have thus been transformed from establishments dedicated to teaching foreign children living abroad to institutions providing an international education to locals. This shift in mission has broadened and changed the philosophies governing many of these schools, leading to a greater focus on English language skills, intercultural communication, and some sense of global understanding or responsibility.

There is no consensus as to what characterises an international education. Most international schools self-identify as such and many – but not all – are associated with the European Council of International Schools, and/or with curricular plans like those associated with the International Baccalaureate program (IB), International Primary Curriculum or the Cambridge International Examinations<sup>1</sup> (Clark 2014). Most teach primarily in English and their relationships with the governing educational authorities vary from location to location. Some schools are entirely private and charge large fees, while some are public and represent magnet programs available to all residents in a given municipality. Many, like the international school involved in our study, are joint private/public enterprises. Given these differences and the changing character of international education, international schools have been forced to articulate their own philosophies, the nature of their relationships with their host countries, and their language policies to a greater extent than when they simply functioned as English-language schools for expat children. No longer simply English-medium schools, international schools now possess mission statements reflecting the kinds of global realities that have led to parents choosing these sorts of educational experiences for their

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<sup>1</sup> The International Baccalaureate website reports that between 2011 and 2016 the number of registered IB schools increased by over 46%.

children. Recently, some of the most influential international curricular programs like the International Baccalaureate have begun using terms like ‘international-minded’ or ‘international perspective’ to define the kind of education they provide and to distinguish these offerings from those provided by the host country education system (Roberts 2003). These curricular organisations believe that what they increasingly offer is a kind of education that emphasises a global outlook or which contextualises subject learning within a global framework.

The extent to, and manner in which these global commitments are implemented in the running of the school and in class activities, however, have been a matter of discussion and certainly vary from institution to institution. At least at the rhetorical level, many international schools claim to develop their pupils’ sense of self in relation to global realities and even to encourage pupils to think of themselves as global citizens. This orientation contrasts starkly, however, with a global outlook that increasingly sees the movement of people as, if not threatening, problematic and where national policies restrict much of the world populations’ ability to attain the kind of trans- or supra-national identities encouraged by many international schools, at least as expressed in their literature and mission statements.

Pupils enrolled in international schools are often acutely aware of the tension between the commitments of their schools and their parents to an expansive sense of world community, and political rhetoric surrounding the restriction of personal mobility. In its broadest scope the project hopes to investigate how children at an international school and at a normal public school in Norway conceptualise home and its attributes in the service of studying how influential the rhetoric of global citizenship found within International schools is in impacting the pupils’ ideas about their place in the world.

### **3. Research questions and method**

Our study aims at investigating how international school pupils in Norway see themselves in relation to their countries of origin (or their parents’ home countries), as well as to the kinds of global identities being encouraged by their learning environments. We were also interested in finding an answer to the question whether there would be any difference in self-perception between the pupils of an international school and children attending a public school with Norwegian as the main instruction language.

As a rapidly diversifying country, Norway has invested in a number of government funded programs investigating the education offered to migrant pupils in the country’s schools. Even schools that are not overtly defined as “international” display a considerable degree of ethnic multitude;<sup>2</sup> the differences lay, however, not only in the main instruction language, but also in the educational policy. Migrant children enrolled in purely public Norwegian schools are eligible for special Norwegian language instruction, and in some cases, a limited amount of instructional support in their home languages until they are able to

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<sup>2</sup> The most recent (2014) statistics from the Ministry of Education report that 82,830 pupils from immigrant backgrounds attend primary school in Norway.

follow Norwegian medium instruction. Care is taken to introduce migrant children to traditional Norwegian cultural touchstones and sporting traditions.

### **3.1. *The Participants***

For the purpose of our investigation, we chose two schools in Kristiansand (southern Norway): Kristiansand International School and Aasen Elementary School (this school name has been fictionalised). Kristiansand International School is a fee-free joint public school founded in 2008. It currently has slightly over 100 students in grades 1 to 10.

The International School is an IB school, which receives many pupils and some funding from the large multinational oil drilling companies located in the Southern Norway region. The school itself negotiates between the international idealism embodied in the IB, the corporate parents' desires for a complete education in English, and the local pupils' parents' investments in high quality English-medium education from a global perspective. An IB diploma program is offered by the neighbouring upper-secondary school to allow International School pupils to complete an entire education both in English and within the IB system.

Aasen Elementary School is a public primary school located in suburban Kristiansand enrolling approximately 250 students at the same grade level as the International School. Like all public Norwegian schools, Aasen School is charged by the government with providing an education to all pupils according to the curricular guidelines established by the Norwegian Directorate of Education and Training. This means that the school is obliged to provide Norwegian-language assistance to immigrant pupils, and to help immigrant pupils integrate into Norwegian culture as soon as possible. Integration is seen by and large as a process whereby the immigrant pupils become more like Norwegian children in terms of interests, language, and worldview. The International School resists the model of integration encouraged by the government and encourages their pupils to develop identities in dialogue with a multitude of cultural impulses and, while they offer the pupils Norwegian language instruction, Norwegian is not a curricular focus area and Norwegian cultural assimilation is not an educational goal.

### **3.2. *Method and procedure***

After an initial observation period at the International School, we identified two classes at the 5<sup>th</sup> and 6<sup>th</sup> grade levels to act as informant classes in order to investigate their perceptions of themselves in an international context. As with most international schools, English is the language of instruction and the pupils also have obligatory Norwegian language tuition. Bilingualism is both an outcome of the instructional program, and an every day reality for the students, but is not a large feature of the philosophy of the school. The school itself strives to offer an education program aimed at encouraging pupils to develop a sense of themselves within global perspectives and does not take the Norwegian national curriculum as a starting point. Although many of the pupils have at least one foreign parent, however, their own



international experiences are often limited. Both the municipality and the school itself are eager to discourage local parents with no international ties from enrolling their children in the school, although as a part of the public school systems it is not possible to prevent them from doing so against institutional advice. The classes we observed were mainly made up of pupils with some international experience gained either from living abroad or from having at least one foreign-born parent. This classroom environment contrasts with that at the public school, Aasen, where the class was mainly composed of Norwegian children from the local neighbourhood.

An investigation of children's feelings about migration, identity and belonging could be performed by different methods. One could employ a written questionnaire or oral interviews (open, semi-structured or structured); the pupils could also be asked to write an essay on the given topic. However, all those methods resemble traditional school tests and assignments. Thus, they imply the danger of not getting sincere answers, reflecting the pupils' true feelings, but rather "politically correct" task solutions, following the school's policy. Furthermore, in the situation of a face-to-face-interview conducted by a stranger, children often feel shy and uncomfortable, and they avoid extensive spontaneous utterances (Labov 1973).

Another method for discovering the respondents' emotions and connections between concepts in their minds would be a classic association test (Aitchison 1994), i.e. elicitation of words that occur in the informant's mind as the first response to a stimulus word. However, researchers disagree as to whether the results of psycholinguistic association tests reflect cognitive relations between concepts, or rather linguistic connections between lexical items (Aitchison 1994: 41, Miller and Johnson-Laird 1976: 12, Johnson-Laird 1983, Murphy 1991). Another shortcoming of this method lies in the fact that the researcher may be (more or less consciously) biased when choosing the prompting stimuli, and the respondents may be affected by the spatiotemporal setting of the experiment (for example, if the test is performed shortly before Christmas, the thoughts of the informants may be occupied by concepts related to Christmas celebration). Furthermore, although a correctly conducted association test eliminates the risk of getting deliberate, non-spontaneous responses, it often results in a complicated, quite blurry and fragmentary picture; to discover recurrent association patterns, very extensive studies involving hundreds of informants are needed. Since our study contains a limited number of informants, we investigated other means of approach.

Having considered advantages and shortcomings of several methods, we decided to employ a procedure that should differ both from conventional school tasks and from regular association tests. The method might be called "semi-structured text elicitation": the respondents were presented a short poem written by a child approximately their age, and then asked to produce their own poems on a similar topic. Our hope was that this method would encourage the children to reveal their emotions and associations without too much self-censorship, yet with a certain degree of self-reflection.

In both schools, we conducted a lesson where we discussed the global journey of Maryam Sathat Sobhani, a 12 year-old refugee from Iran who won a national Australian poetry prize. Maryam came to Australia through the asylum system and had in fact lived in the notorious offshore detention center Christmas Island before being allowed to settle in Melbourne. Maryam thus embodies the limitations of the kinds of globalised identities encouraged by

international, particularly IB schools. Approximately the same age as our informant pupils, Maryam presented both a figure they could identify with – a child of their own age – and simultaneously the kind of migrant child they do not encounter in their educational lives. We introduced both groups to Maryam and her journey before displaying her prize-winning poem. Her poem, *Me* is a reflection on the difficulties a migrant young person encounters when attempting to find or develop an identity that functions and make sense in several geographic and linguistic contexts. Below, we quote the stimulus poem.

*Me*

*I wonder who I am?  
Or where I am meant  
to be?  
Or where I could be?  
Or how to leave?  
Or how to be a true person?  
I wonder!  
I wonder how I can fit in this world  
Or how to be right?  
But no one can answer my questions.*

After the presentation of Maryam's story and her poem, we had a brief discussion concerning poetry as a genre. It turned out that the children had previously written short poems in their language class, and they were reasonably aware of the distinctions between prose and poetry. They mentioned some formal exponents of poetry (*You can have short lines, You don't have to write sentences that are correct all over, In a poem, words often start or end in similar letters*) as well as functional features (*You write about your feelings, A poem cannot be right or wrong, what matters is that it says how you feel about things*).

Those and similar utterances indicated that the chosen method would – with a quite high degree of probability – reveal some reliable data regarding the informant pupils' self-perception and their attitudes to both Norway and the multicultural society of today.

The children were given approximately 25 minutes in class to compose their poems. During this time, Maryam's poem was not available to them. The *Me* poem was intended to function as an association stimulus, directing the minds of the informants towards concepts like "I", "true person", "being", "leaving", "where", "how", "world". It was not thought to be used as a facit for a "good poem".

The poems we collected were anonymous; the children were only asked to provide them with information about their first language and countries they come from or countries of origin of their parents. All of the children but one International School pupil (not included in this study) willingly wrote a poem and many of the children also decorated their work with pictures of their homes, with objects mentioned in their text or, in the case of Aasen pupils, with drawings of stylised hearts.

The qualitative and quantitative analysis of the responses focused on semantic fields most frequently associated with the concepts ME and HOME.

#### 4. Analysis and results

Our experiment resulted in elicitation of 46 children's poems: 21 from Kristiansand International School and 25 from Aasen Elementary School.

As the main topic of their writing efforts, the pupils mostly chose the concept of HOME: it occurs as the poem title in 34 responses, although this particular word is not explicitly present in Maryam's text.

It was rather striking that the minority of respondents who decided to entitle their poems *Me* instead of *Home* were the oldest of the informant children, aged 13-14. This confirms earlier psychological and psycholinguistic findings (Hurford 1991, Miller and Gildea 1987, Snow and Hoefnagel-Höhle 1978), according to which the capability of abstract and meta-thinking rapidly increases beyond the threshold of adolescence.

##### 4.1. The International School

In Table 1 and Table 2, we show the results of the analysis of the poems written by Kristiansand International School pupils. The results are ranked by frequency and examples of student language presented.

The differences in association patterns seem to be partially due to the pupils' age. In absolute numbers, the age discrepancy was not big (the youngest informants were 11, the oldest 14), but it clearly has an impact on the children's social and cognitive development level. This is reflected in the choice of the main topic of the poems: the younger groups preferred the HOME-topic, while the older group focused on the more abstract issue of identity (ME). Another significant difference between the two age groups is the prominence of the concepts FAMILY and FRIENDS in the poems. In the texts produced by the 13-14-year old respondents, friends are mentioned most frequently as a crucial factor in identity development, more important than family (rank 1 and 5, respectively), while in the younger International School informant group, the ranking of these two concepts is opposite.

**Table 1:** Recurrent concepts in the poems by International School pupils, ME-topic

Concept	% poems	Sample linguistic exponents (spelling and grammar preserved)
Friends	80	"Free with my friends" "I love my friends/when they make me laugh and cheer me up" "The comfort of my friends/provide fuel for my fire"
Individuality, freedom	70	"Create the person I want/to be" "Me is good enough" "Forever striving to be different" "My friends, my family, the language I speak"
Country/ethnicity	40	"Yes, I'm Norwegian/and in Norway I live/But inside me I know/that I'm half Indonesian"
Language	30	"I speak fluently English and Norwegian" "My languages are now/Much more than one"
Favourite things/ activities	30	"I love diving into the water" "I love the hot tea/and melty chocolate on cold winter days"
Family	20	"My friends, my family, the language I speak"

**Table 2:** Recurrent concepts in the poems by International School pupils, HOME-topic

Concept	% poems	Sample linguistic exponents (spelling and grammar preserved)
Family	100	“I am at home/when I am with my family/with my mother and father and me myself” “You have family/ You eat food/You have siblings”
Individuality, freedom	50	“I feel at home when I can be who I truly am” “I am free and my creativity runs wild” “I feel at home when I can do as I want” “When there is the privacy I need”
Safety	40	“What is home?/ Is it where I feel safe?” “When everything is peaceful and calm and undisturbed”
Language	20	“Talking with your family/in mother tongue” “When I talk my language/It can be Telugu or Tamil/it is so easy”
Favourite things/ activities	20	“When I am in my room/with my origami and some origami papers/I am at home” “Playing minecraft”
Pet animals	20	“When I am with my cat”
Physical elements of a home (room, bed...)	20	“When the bed is ready to sleep in!” “When my room is messy” “When I see goosey sitting on my table/ It is a very perfect toy...”
Friends	10	“Home is where there are family, friends and animals I know”

Sample poem A below, written by a 12-year-old boy, demonstrates association to several semantic fields that occur frequently in the younger informant group (FAMILY, SAFETY, FREEDOM):

**Poem A**

**Home**

*I feel at home when  
the warm  
comfortable feeling hits me  
When everything is peaceful and calm  
and undisturbed  
I feel at home when  
I am free  
and my creativity runs wild  
When the brave  
encouraging feeling follows me  
I feel at home when  
my family is with me*

The following poem (B) is very representative for the ME-topic: as many texts produced by the older International School pupils, it focuses on the question of individual freedom and the issue of discovering one's true personality.

**Poem B****Me**

*I have been told to be  
as still as water  
as sharp as ice  
as balanced as a scale  
I have been told to believe  
I have been told how to look  
I have been told how to think  
I have been told to fit in  
I have been told where my place is*

*But I have met some people  
who taught me to love  
they helped me believe in whatever I want and  
stand up for it  
through them I know that  
it doesn't matter how I look  
or what I believe  
but the important thing is for  
me to be me, for me to  
create the person I want  
to be and most importantly  
that me is good enough.*

The issue of developing one's true identity, of personal freedom, the right to make one's own decisions is very prominent in the poems written by both age groups.

Several International School children formulate reflections on ethnicity and nationality, and language. They stress the fact that different ethnicities are part of their identity:

*Yes, I'm Norwegian  
and in Norway I live,  
but inside me I know/  
that I'm half Indonesian*

but a recurrent thought is that there exists a part of one's personality that is independent both of the parent's culture and the Norwegian culture: *a part of me that/I still have to discover*, as one of the International School pupils puts it.

Words and phrases referring to country/ethnicity and language are never associated with conflicts or clashes; they are frequently linked to the concepts of ME and HOME through FRIENDS or FAMILY, for example:

*My friends are from Canada  
England, Peru,  
I also have friends  
from France, and then you*

or

*Talking with your family  
in mother tongue  
When I talk my language  
It can be telugu or tamil  
it is so easy*

The pupils' texts often describe an easy movement between national identities:

*Wherever I am  
Whatever I see  
I will always be me.  
Different,  
That is what I strive to be.*

*Whether I'm in the United States,  
or in the forests of Norway  
I will strive to be  
Different.*

A common feature of the pupils' reflections on language is perceiving multilinguality as something natural:

*My languages are now  
Much more than one  
I can also speak English  
And of course Indonesian.*

International School children are nevertheless preoccupied with the question which language is their main, "home" language:

*What do I speak then?  
Norwegian I'd say...*

However, the different languages and ethnic backgrounds are not presented as competing; they coexist without clashes. Individuality is generally perceived as more important than nationality/ethnicity. If the children make reflections of conflicts, the conflicts and clashes do not concern nationalities or cultures, but the tension between individual vs. collective, authority vs. personal freedom. Phrases like *clash*, *border*, *two worlds* occur not in relation to ethnic differences or country borders, but to the individual vs. collective distinction:

*Two worlds, clashing, the social  
and individual.  
(...)  
My home is on the  
border  
between these two worlds.*

The concept of collective (larger than one's family and/or close friends) is sometimes associated with fear and unwanted pressure:

*Surrounded by loud individuals  
Hiding within the crowd  
Scared of others' opinions  
Only comfortable around known things...*

Being different, unique, not entirely defined by the collective is generally regarded as a positive value, as illustrated by the quotations below, taken from several poems:

- *Forever striving to be/Different*
- *Being myself and not someone else*
- *Create the person I want to be/and most importantly/that me is good enough*
- *Home (...) Somewhere I can be my true self*
- *Who am I? (...) A person!*

Children from both age groups are interested in the notion of identity, and demonstrate considerable interest in developing and asserting their own identities as authors, young people, and language users in highly individualistic ways. Several pupils in the international group openly discuss their hybrid identities in linguistic terms but the major conflict noted in both informant groups is between the individual and the society he/she inhabits. Friendship across languages and cultures is the best way to overcome the individual-collective clash:

*My friends (...) inspire me to be who I am  
Being myself and someone else.  
Lovely they are...*

#### **4.2. Aasen School**

The poems written by our informants from Aasen School were analysed with respect to recurrent association patterns in the same manner as the texts produced by International School children. Table 3 shows the results with topics ranked and representative examples listed.

FAMILY in Aasen texts was the most frequent association to HOME, as it was the case in the poems written by the younger International School children. A striking difference between the two younger informant groups lies in the low ranking of the concept of FREEDOM/INDIVIDUALITY in the Norwegian pupils' texts. The importance of making own choices, of being a free and unique person, is explicitly formulated only in one poem out of 25.

Aasen pupils do not reflect on language, which is certainly connected to the fact that they identify themselves with Norway, their home city and region; No nations or countries other than Norway are mentioned. An interesting feature of this group's texts is frequent associations to outdoor sports and activities, some of them deeply rooted in the Norwegian culture (as boat trips and fishing lobsters).

**Table 3:** Recurrent concepts in the poems by Aasen School pupils, HOME-topic

Concept	% poems	Sample linguistic exponents (spelling and grammar preserved)
Family	80	“My family is home” “I am home when I am with my family” “Home is where my sisters is” “I feel home with my family,/my dog, my sister, my brother,/ my mum and my dad./They are my home!”
Sports/outdoor activities	48	“I feel home when I am with my father/When we play football together” “But home can too be when I am playing tennis and handball” “Home for me/ is on the football court” “Home is with the sea and in the boat with the lobsters” “I feel home when I am/ sitting in the saddle”
Friends	47	“Home can be when I am playing with my friends” “Home for me is with my friends”
Pet animals	36	“I feel home with my family,/my dog, my sister, my brother” “My home is with my cat” “I feel home where/my family and/my cute dog are” “I love my cats!”
IT-devices (PC, Ipad, wi-fi, ...)	20	“I feel me home on WiFi” “Home is in my sofa with my Ipad” “I feel home where ever my i-pad is./” “I feel home where ever my PC is”
Physical elements of a home (room, bed...)	20	“Home is in my house” “my room is home/ my bed is home”
Country(Norway)/ Region/City/ restaurants and stores	20	“I feel home when I am in Norway” “Home is Norway” “Kristiansand is where I live” “I feel me home on MCDonald’s and burger king/ and on Unisport store”
Safety	20	“Home for me is safe!” “Home is a safe place to stay”
Freedom/ Individuality	< 10	“Home for me are a place everyone be herself, and a place I could be myself”

Below, we quote two poems (C and D) written by children from Aasen School that are quite prototypical for this group of informants, since they contain associations to several semantic fields that are prominent in Aasen School pupils’ texts: FAMILY, PET ANIMALS, FRIENDS, SPORTS, PHYSICAL ELEMENTS OF A HOME.

**Poem C****Home**

*my family is home  
my cat is home  
my room is home  
my bed is home  
football is life*

**Poem D****My Home**

*I love my home.  
Home is fun.  
I have cats in my home.  
I love my cats!  
  
My home is where my family is.  
My friends come to my home sometimes.  
I draw in my home.  
I love my home.*



Poem D (*My Home*) displays another characteristic feature of the texts produced by Aasen children, namely a quite high frequency of the word *love* (both verb and noun). *Love* occurs in 7 Aasen poems (out of 25), while in the poems by International School pupils the concept of love is explicitly mentioned in 4 texts out of 20. The statistical distinction is not very large, but it is worth noting that *love* is the only abstract noun (apart from the abstract aspects of *home*) that occurs in the poems by Aasen pupils. In the next section, we take a closer look at linguistic and stylistic characteristics of the children's texts.

### 4.3. Linguistic and stylistic variation

As expected, the poems written by our International School informants displayed a higher degree of lexical and stylistic variation and grammatical complexity than those by Aasen School children, due to the difference in main instructional languages. In Table 4, we summarise the most distinct analysis results.

**Table 4:** Formal features of the poems

Formal text features	International School	Aasen School
Abstract nouns and noun phrases	+	- (the only abstract noun is <i>love</i> )
Similes and metaphors	+	-
Noun phrases with adjective modifiers	High frequency (16)	Low frequency (4)
Alliteration	+	+
Rhyme	+	-
Sentence type variation	declarative/interrogative/ exclamatory	declarative/exclamatory

International School pupils (both age groups) produced longer noun phrases, often with adjective modifiers, while prenominal adjectives were extremely sparse in Aasen texts. Aasen children produced almost entirely short noun phrases structured in accordance with the simplest pattern possible for English NPs with common nouns: article/possessive pronoun + noun (*my family, my room, a place*). The extremely few adjectives that occurred as noun modifiers were limited to general evaluative attributes (*good, safe, cute*). Also, the use of abstract nouns in Aasen poems was very limited compared to the frequency of abstract words and phrases in International School informants' production.

Although the poems written by the younger international group contained more concrete associations than the older children's poems, abstract nouns and complex noun phrases were not infrequent, e.g.:

*the warm comfortable feeling*  
*the brave encouraging feeling*  
*my creativity*  
*the privacy I need*  
*'trust' combined with 'love'*  
*no more happiness*

All children employed such formal exponents of poetry as short lines and, to some extent, alliteration, but the International School pupils, especially the older group, made even use of rhyme, deliberate similes and metaphors, and even combined the means of expression, for example:

*Free as the wind*  
*I'm a scale,*  
*My thoughts as big as a whale*  
*The touch of the sun light*  
*as still as water*  
*as sharp as ice*  
*as balanced as a scale*

We found no evidence of calques or attempts to import Norwegian figurative language into the English texts.

The relatively high frequency of interrogative sentences in the poems by international pupils may indicate that those children became more impressed by the stimulus poem (Maryam's *Me*), both with respect to its form and its content, and that they regarded the issue of constructing own identities across and beyond cultures, languages and nationalities as an interesting, yet demanding task. Our Aasen informants expressed their feeling of being home in and belonging to a given culture (national and regional) in a more affirmative manner, marked by exclamatory sentences, mostly constructed around the verbs *love* and *like*.

## 5. Conclusions

Table 5 (below) brings together the topic tallies for both Aasen and the two International School groups. It presents a frequency ranking for the semantic fields most frequently associated with ME and HOME.

**Table 5:** Ranking of concepts associated to ME and HOME

Prominent associations	International School, older group – rank	International School, younger group – rank	Aasen School – rank
Family	5	1	1
Friends	1	5	3
Individuality/freedom	2	2	7
Safety	-	2	5
Country/region/ethnicity	3	-	5 *)
Language	4	3	-
Favourite activities	4	3	2 **)
Physical elements of a home (room, bed...)	-	4	5

\*) only Norway and Norwegian regions and cities are mentioned

\*\*\*) all favourite activities mentioned in the poems by Aasen pupils are sports and outdoor activities, often conducted together with family members

As mentioned in Section 5.1, some differences in association patterns seem to be partially due to the pupils' age (the preference for the ME-topic in older children and the HOME-topic in younger respondents, the different ranking of the concepts of FAMILY and FRIENDS). Generally, the poems written by the older group display most signs of abstract thinking (metaphors, many interrogative sentences, no references to physical elements of a home). Another striking fact is the absence of expressions referring to SAFETY in the poems by older pupils, while phrases like feel safe and a safe place are quite frequent in the younger children's texts.

There are, however, certain characteristics of the association patterns in our respondents' poems that cannot be attributed to the age difference and that seem to be related to the multiethnic and multicultural background and environment of the International School pupils and its curricular focus.

In Aasen children's poems, the notion of language is never mentioned, while several International School respondents make the question of language a central topic (2 poems in the older group, 3 poems in the younger).

The notion of ethnic, national and regional identity occurs both in the texts written by International School pupils and Aasen pupils, but reflections on ethnic and geographic belonging differ clearly between informant children from the two schools. Aasen children define themselves as Norwegian (Norway is home) and identify themselves with their home city and/or region.

Individual freedom, personal integrity, the right to choose own values, to create/discover own personality constitute a very prominent topic in the poems by international pupils; these concepts are highly associated both with the notion of HOME and the one of ME. The difference between the Aasen pupils and the International School pupils is striking on this point. The International School children present strong assertions of individual identity as defined against societal roles (*two worlds, clashing, the social and individual*). The Aasen children do not conceptualise identity formation as a struggle and their poems reflect a high degree of social, familial and national integration.

One limitation of the study is the lack of a corresponding informant group from migrant children who are enrolled in public Norwegian primary schools. These children are often divided between different schools and thus studying a class containing all migrant children would be difficult. Such a study is, however, important and presents a future opportunity for research.

## References

- Aitchison, J. 1994. *Words in the mind: An introduction to the mental lexicon*. Oxford, UK: Blackwell.
- Block, D. 2007. *Second language identities*. London: Continuum.
- Brummitt, N. and A. Keeling. 2013. Charting the growth of international schools. In R. Pearce (ed.), *International education and schools: Moving beyond the first 40 years*, 25-36. London: Bloomsbury.
- Cheah, P. 2006. *Inhuman conditions: On cosmopolitanism and human rights*. Cambridge, MA: Harvard University Press.
- Clark, N. 2014. The Booming international schools sector – WENR. Accessed July 08, 2016. <http://wenr.wes.org/2014/07/the-booming-international-schools-sector/>.

- Darvin, R., and B. Norton. 2015. Identity and a model of investment in applied linguistics. *Annual Review of Applied Linguistics* 35: 36-56.
- Dower, N. 2003. *An introduction to global citizenship*. Edinburgh: Edinburgh University Press.
- "Facts and Figures." 2016. <http://www.ibo.org/about-the-ib/facts-and-figures/>.
- Hall, S., Held, D. and A.G. McGrew. 1992. *Modernity and its futures*. Cambridge: Polity Press in Association with the Open University.
- Hurford, J.R. 1991. The evolution of critical period for language acquisition. *Cognition* 40: 159-201.
- Joerchel, A. 2006. A qualitative study of multicultural identities: Three cases of London's Inner-City children. *Forum: Qualitative Social Research* 7(2). Accessed February 16, 2016.
- Johnson-Laird, P.N. 1983. Which comes first: Logic or rationality? *Behavioral and Brain Sciences* 6(2): 252.
- Labov, W. 1973. *Sociolinguistic patterns*. Philadelphia, PA: University of Pennsylvania Press.
- Miller, G.A., and P.N. Johnson-Laird. 1976. *Perception and language*. Cambridge: Cambridge University Press.
- Miller, G.A. and P.M. Gildea. 1987. How children learn words. *Scientific American* 257(3): 86-91.
- Murphy, G.L. 1991. Meaning and concepts. In P.J. Schwanenfugel (ed.), *The psychology of word meanings*, 11-35. Hillsborough, NJ: Erlbaum.
- Ostberg, S. 2003. Norwegian-Pakistani adolescents: Negotiating religion, gender, ethnicity and social boundaries. *Young* 11(2): 161-181.
- Roberts, B. 2003. What should international schools be; from emergent theory to practice. *International Schools Journal* 22(2): 69-79.
- Snow, C.E. and M. Hoefnagel-Höhle. 1978. The critical period for language acquisition: Evidence from second language learning. *Child Development* 49(4): 1114-1128.
- Sobhani, M.S. *Me*. 2014. *The Australian*. August 29, 2014. Accessed September 01, 2014. <http://www.theaustralian.com.au/arts/books/who-i-am-asylum-child-and-poet-of-repute/news-story/698975249d06effeb4934d5ef43471b4>.
- Steen, G. 2013. *The cognitive-linguistic revolution in metaphor studies*. Academia.edu. 2013. [https://www.academia.edu/3499506/The\\_cognitive-linguistic\\_revolution\\_in\\_metaphor\\_studies](https://www.academia.edu/3499506/The_cognitive-linguistic_revolution_in_metaphor_studies).

# The influence of the language of new media on the literacy of young people in their school assignments and in leisure

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## Abstract

The authors of this research study try to explore the real literacy among young people of today resulting from the influence of the language of new media (especially Facebook and the mobile phone). The impetus for this study comes from frequent complaints that the language of young people has deteriorated due to the negative impact of the language that young people are using in the new media. The authors have done this through an analysis of the way students write in their school assignments and in writings done in their spare time in the new media with regard to (non) existence of the language of new media (such as abbreviations, emoticons and other iconic signs, capitals, dialecticisms, anglicisms, vulgarisms, etc.). In their analysis, the researchers used a computer programme WordSmith Tools 6.0 (Scott 2006). The authors aimed to find out whether or not students in their private language texts use the language of new media (written language with many elements of spoken language and with many abbreviations) and whether or not the students in their school assignments consistently use the standard language without the elements that they normally use in their own language in the new media. The results have shown that secondary school students do consistently write in the standard language in their school assignments, whereas in their leisure activities they use all the elements of the language of new media.

**Keywords:** Internet, Facebook, mobile phone, young people, language of new media, standard

## 1. Introduction

Today's young people spend a lot of time on the Internet (particularly Facebook or smartphone) surfing and looking for different information or by writing their own texts or messages. They are more than any other group aware of the fact that the language of new media is different and this is reflected in their usage of those media. Crystal (2011) has already pointed to the fact that daily millions of lines of spontaneous written language flow into a network of networks (the Internet) and SMS and it is widely known that they are

largely produced by young people. Such spontaneous written language also helps to explain the framework presented by Koch and Österreicher (1994). It distinguished between the two interrelated concepts of literacy: the conceptual literacy and the conceptual orality, whereby, to put it in a nutshell, those two concepts take turns in a new transformed kind of language. It means that conceptual literacy (the use of standard language) alternates with conceptual orality (elements of spoken language such as abbreviations, clippings, repetitions, anacoluthon, emoticons, varieties of alloglottic elements, regional dialects, etc.). This new phenomenon itself could be termed everyday written language. Crystal refers to this new phenomenon by using the term *netspeak*. Unavoidable in any serious research of the language of new media are his books (Crystal 2006, 2011) in which he describes the language of various Internet services, from e-mail and the blog and the chat to the social networks, for whose language he notes that it is characterized by 'writing as well as talking' and adds the interactivity as well. Thus for Crystal *netspeak* is a kind of linguistic articulation in the above mentioned Internet services or 'a type of language displaying features that are unique to the Internet, and encountered in all of the above situations, arising out of its character as medium which is electronic, global and interactive' (Crystal 2006: 19f). All these features speak in favour of a new variety of language that is worth of being explored in detail. Therefore, this research study presented in this article will be going in that direction.

## 2. Literature review

With no doubt Crystal was a pioneer in the research of the language of new media, but there exist many other praiseworthy authors from the English-speaking world who have dealt with the language of new media. A small selection of them includes Werry (1996), who emphasizes the fact that in chat participants play with language and create hybrid forms, Herring *et al.* (2004, 2013) who have been analyzing blogs describing them as being asynchronous like websites or forums and tweets that are more similar to SMS communication, Krishnamurthy *et al.* (2008) who give something like a sociological view of the communication on Twitter stating that most contributions are sent from the web (60%), Tagg (2009) who in her doctoral dissertation presents a detailed description of the language of the SMS finding deviations from the norm as well as shortenings and clippings, creativity and play with words, Boyd *et al.* (2010) who describe conversational aspects in addition to a sociological and IT aspects of the communication on Twitter. The first mentioned above Crystal (2006, 2011) is famous for his comprehensive description of the communication in all online services other than Facebook.

Literature in German has also yielded a wide variety of research results dealing with the topic of the language of new media. Mention must be made of Döring (2002), who was the first to describe SMS communication and primarily its abbreviations, clippings and acronyms, Huber (2002) who while describing hypertext wonders whether this means that this prefix indicates something more than a normal text or the text above text, Schlobinski (2005 and in many other works) and Schlobinski and Siever (2005), who describe the language and communication in different online services and point to a number of deviations from the language norm, Schlobinski has even published a dictionary of the language of the SMS with

an interesting title *Von HDL bis DUBIDODO* ;-), Storrer (2001) who invented the term *typed conversations* to describe the chat communication, Tuor (2010) who has described the language of social networks and who has found significant deviations from the norms in the texts from the German, English, Spanish and French corpora, Bieswanger (2007) who has made a contrastive analysis of the strategies of time and space saving in German and English SMS's, Dürscheid *et al.* (2010), who give detailed information about their project about the literacy of the young Swiss people and linguistic description of the language of new media used by young people and who have concluded that in the students texts written as part of the school assignments there are no negative influences caused by the language of new media. The authors of these books and articles do not only describe the language of the online services, but also the language of the SMS, as young people of today do not go anywhere without their smartphone which they use for texting or going on Facebook to send their messages or for editing their status and similar things. Even the titles of the works often reveal features of the language of new media. It is impossible to avoid being startled by the amazing creativity (which is generally a very common feature of the language of new media) of the titles like Binswanger's *2 abbrevi8 or not 2 abbrevi8...* (2007) and of many other titles.

Croatian linguistics has also recently seen an upsurge in research studies dealing with the topics relating to the language of new media (the language of e-mail, Facebook, SMS and all the online services). This can primarily be noted among the following authors: Tuđman-Vuković (1999), who was among the first to describe the language of Croatian e-mails, and who has concluded that Croatian Internet users take the English language patterns in their e-mails written in Croatian, Žic-Fuchs and Tuđman-Vuković (2008), who point out that information technology in SMS's influences the Croatian language and its verbal system by causing the 'reassortment' of Croatian past tenses, Pavličević – Franić (2009), who sees SMS messages as a new linguistics of communication in the discourse of new media, Pavličević-Franić *et al.* (2010), who have recognized the influence of the English language (which is frequently used in new media) on the functional grammar of the Croatian language, Filipan-Žigni<sup>ć</sup> (2012a), who has given a detailed description of all linguistic levels of the language of all the Internet services and who has advocated the inclusion of the language of new media into school syllabus with the aim of raising awareness about the differences of communication in formal and informal situations, Filipan-Žigni<sup>ć</sup> *et al.* (2012b), who have concluded that there are no significant differences in language features in SMS communication in English, German and Croatian, Filipan-Žigni<sup>ć</sup> (2013, 2015b), who point to language changes on the Internet and who have described blogs, Vlastelić and Vrbanec (2014), who have explored the influence of the language of new media on the vocabulary of university students, Filipan-Žigni<sup>ć</sup> *et al.* (2015a, c), who have concluded that there are no significant differences in the language communication on Facebook in German and in Croatian and who have explored the language corpora of secondary school students with regard to the presence of elements of the language of new media.

Before proceeding to the description of the features of the language of new media as they are seen by the latest research results, and which have served as the basis for postulating hypotheses for this research study of the literacy of young people, the authors of this study would like to mention some important works in the field of corpus linguistics and in the filed

of the study of students' corpora. That literature was of great help for the authors because this current study dealt with a corpus of student texts in the native (Croatian) and foreign languages (English and German) by using WordSmith 6.0 programme as a tool.

Highly prominent in the above mentioned fields of corpus linguistics are works by Granger, Granger *et al.* and Horvath. Granger *et al.* (2002) and Granger (2013) as well as Horvath (2001, 2002) describe in detail the criteria for compiling the corpus of students and they were taken into consideration in the description of the current study. Unfortunately, at present in Croatia there does not exist a corpus of student works in Croatian, nor does it exist of student works in English or German as a first foreign language, although there is an international corpus of students of English, the *International Corpus Learner English* ICLE (Granger *et al.* 2002), which contains works from 15 countries and includes Slavic countries like Czech Republic and Bulgaria, but unfortunately no student works from Croatia. It can serve as an impetus that one day in the future this corpus that the authors of this text have compiled for the purpose of this current research study of students texts in English as a foreign language could be included into the above mentioned international corpus called ICLE. The principles for compilation of a corpus of student works in English that have been given and described in detailed by Horvath (2001) could be used as guidelines.

In the above mentioned Croatian corpus of student works (as well as in the Facebook corpus) that the authors of this article had compiled for the purpose of this research study, they investigated the presence of elements of the language of new media. It is, therefore, necessary to describe in detail, what kind of language it is.

### **3. Features of the language of new media on Facebook and SMS services**

Detailed analyses (Filipan-Žigni<sup>ć</sup> *et al.* 2012b, Filipan-Žigni<sup>ć</sup> and Mošmondor 2015) of the two most widespread services among today's youth (Facebook and SMS) according to the language level indicate that they use many elements of the language of new media in their writing primarily in their free time that are primarily characterized by a deviation from the standard language in many respects.

At the orthographic level of Facebook, Filipan-Žigni<sup>ć</sup> and Mošmondor (2015a) have noticed a very popular use of lower case letters joined by the hybrid writing with small and capital letters followed by exclusive use of capitals. They additionally report about the occurrences of omissions of empty spaces between words. Obvious and repeated use of different punctuation marks has also been recorded as quite common. According to Filipan-Žigni<sup>ć</sup> and Mošmondor, most apparent among them is the use of three dots, slightly less common is the use of exclamation and question marks, followed by the repetition of sounds with the purpose of making the statement more emphatic. The presence of errors caused by these modern media cannot be overseen in chatrooms and the timeline of Facebook.

At the graphostylistic level of Facebook, most common are the expressions of feelings, the so-called emoticons, which can be found in practically every sentence or utterance. They are used as a substitute for a variety of facial expressions and the expressions of feelings. The most common are the initial smiling and crying emoticons ( :-), :D, :-(, ) and heightened



expressions of laughter :-))))), :DD, but one can also come across the signs :P or :O and similar ones. Extremely rare are ^^ emojis (Japanese emoticons) and emoticons that are otherwise unavoidable on the web 😊😏. The occurrence of logograms and other iconic signs such as a heart, ♥♥, stars \*\*\*\*\*, \$, etc. must also be mentioned. Logograms often appear with a photo. Links like calls for interaction and other expressions to mark laughter (hehe, hihi, hahahaha...) are also quite common (Filipan-Žigni<sup>ć</sup> and Mošmondor 2015a).

At the morphological level one can observe various types of shortenings and abbreviations, although it should be noted that the use of abbreviations is not so frequent on Facebook as is the case in the SMS. These are, according to Filipan-Žigni<sup>ć</sup> and Mošmondor (2015a), primarily acronyms of English origin (e.g. BTW, LOL, GL, IMO), but there are also Croatian syllabic abbreviations (e.g. *nmg, dns, ugl, hrv, odg, fkt*, etc.). Researchers have also noticed a large number of shouts, cries, exclamations and interjections as well as instances where young authors of texts try to imitate sounds, describe what is happening or express emotional condition.

At the syntactic level very visible are frequent ellipses of all kinds (Filipan-Žigni<sup>ć</sup> and Mošmondor 2015a). Those two researchers thus point to frequent dropping of auxiliary verbs, the use of *aorist* and *imperfekt* rather than *perfekt*, leaving out the subject, shortening of sentences by using three points at all imaginable locations, telegram style, etc. Incomplete sentences marked by three points is one of the essential features of the language of Facebook. The results of the research of those two researchers have also shown that the use of intertextual elements, phraselogsms as well as collocations and all kinds of rhymes can be quite often.

The analysis of the semantic level has revealed all the possible topics that depend on the age of the users. Thus in older adolescents Filipan-Žigni<sup>ć</sup> and Mošmondor (2015a) have mainly found topics about free time, but they have noticed that younger ones are more concerned about school so that the two researchers have come across topics related to teachers, assignments, seminars, etc., but one can also find that they are also dealing with love, music and free time. Music and a variety of songs are usually most common on *timelines* although sometimes quotations from literature and wise proverbs can also be found. Less frequent are more serious topics like science. Nonetheless, according to the above mentioned authors, it should be noted that on Facebook timeline the vast majority of the texts are dealing with leisure activities and personal reflections.

The analysis of the lexical level reveals the frequent use of anglicisms. Besides anglicisms some germanisms can also be found. Furthermore, unavoidable are regional dialectal expressions. This is quite logical as all these texts are written in colloquial language. In addition to anglicisms and regional dialectal expression, vulgarisms and blasphemies can also be found (Filipan-Žigni<sup>ć</sup> and Mošmondor 2015a).

On Facebook, the same authors have found many hypertext elements. These are primarily hyperlinks, navigation bar with elements (timeline, info, photos, notes, messages, friends, events) comments, advertisements, audio and video recordings, join, like, share, poke and other options.

Due to the number of characters as one of the characteristics of SMS, the situation with that kind of service is somewhat different.

Thus at the orthographic level, punctuation marks, writing in upper case and in lower case letters, repeated graphemes, writing of words spelt together or separated, as well as the errors attributed to the medium have been investigated (Filipan-Žigni<sup>ć</sup> *et al.* 2012b).

The analysis of punctuation marks that was done by Filipan-Žigni<sup>ć</sup> *et al.* (2012b) has shown that they were adequate in 60.4% messages, mixed in 25.1% (meaning that correct and incorrect punctuation marks appeared in the same message) and improper in 14.7% cases.

Concerning capital and small letters, writing was correct in 33.8% messages, while 17% SMS messages used lower case letters only and in 49.2% mixed writing was present (Filipan-Žigni<sup>ć</sup> *et al.* 2012b).

Furthermore, the same authors mention (Filipan-Žigni<sup>ć</sup> *et al.* 2012b) that graphemes were often repeated, words were not separated in some messages as well as that errors attributed to the medium occurred quite often, which made some messages hardly understandable and rather problematic.

Many graphostylistic marks or emoticons (Smilies) were recorded in the collected SMS messages: (e.g. :-), :-(, ;-), :->, >:->, :-P-, :-D, :-| :-/, :-9, :-'-( ;-(, :-<, etc). Smilies in the SMS discourse are used to express things that are in oral communication reserved for particles, interjections, mime and gestures. Smilies can be also looked at as creative impulses expressed by limited abilities of a mobile phone.

Furthermore, SMS message language analysis of Filipan-Žigni<sup>ć</sup> *et al.* (2012b) has revealed that there were no significant deviations at the morphological levels, the only exception being abbreviations. A great number of them were invariably used in the SMS discourse. Acronyms were most often encountered, followed by syllable abbreviations, while complex abbreviations were rather uncommon. The analysis of the origin of foreign abbreviations, has shown that mostly English ones (BTW, CU, CID, EOD, FU, FYI, ILU, JK, UOK, etc.) were frequently used, but Croatian ones (AMR, BMK, PDF, SAJB, LP, etc.) were not uncommon (Filipan-Žigni<sup>ć</sup> *et al.* 2012b).

The syntactic level was characterised by medium-dictated syntax, or the usage of ellipses in the collected SMS messages, as was cited by the previously mentioned authors. According to them, the main characteristics of this type of syntax were the omission of the subject, omission of prepositions and auxiliary verbs, as well as the usage of *aorist* and *imperfect* tenses instead of the *perfect* tense and telegraphic style.

The analysis of the semantic level has led the authors to conclude that all the topics from everyday life were represented in the collected messages. Most common aspects of life present in the researched collection of SMS messages were love, family, school, friendship, going out, free time, holidays, birthdays, sports, politics, society in general, etc. This clearly shows that almost any topic can be covered by sending an SMS message.

The most important finding of the lexical analysis of Filipan-Žigni<sup>ć</sup> *et al.* (2012b) has shown that a wide variety of anglicisms were recorded in the collected Croatian messages. When looked at more thoroughly, it can be noted that they are primarily those that are frequently used as stylistic variants in the message texts (for example *cool*, *sorry*, *ok*, *happy*, etc.). The most frequently encountered examples were in greetings, such as *hi*, *hello*, *hey*, *haj*, etc.). It is interesting to note that the etymological analysis of the abbreviations used in the

sample has shown that almost 90% of those used in the corpus of messages were English in origin (as it was cited by the above mentioned authors).

According to the same above mentioned source, the use of regional dialectal expressions was also quite frequently encountered. When used in Croatian messages, they are often used as a sign of intimacy. Other reasons for their frequent use are speed and imitation of spoken language. Vulgarisms and blasphemies were also recorded in the corpus and they were sometimes from the Croatian language, but much more often used were those of the English origin /f\*\*\* you, shit, etc./ (Filipan-Žignić *et al.* 2012b).

Comparative analysis of the Facebook and SMS discourse in Croatian, German and English revealed that the language present in the Facebook and SMS messages exhibited no significant differences; on the contrary, noticeable similarities were recorded.

Based on the results of all the studies we mentioned above, both in English and German as well as those from the Croatian linguistics (outcomes do not differ greatly in all three linguistics), it can be concluded that the language of new media has considerably changed if compared to the traditional language at almost all language levels, i.e. from the orthographic level, over graphostylistic, morphological, syntactic, semantic, lexical to the (hyper)textual. Due to the fact that it is impossible to list all the results of the research of the new media, only the most important ones will be mentioned. Thus the individual features of the language of the Internet and in particular of the language of the services like Facebook or Twitter and the language of SMS-texts are emoticons (smiles ☺ etc.), abbreviations, graphical-stylistic means (e.g. @; \*\*\*; !!! !!; ????; \$\$\$\$; ###; hahaha, etc.), repetitions of the same sounds and letters used to describe various emotional states (e.g. hey !!!!!!!), usage of capitals, ellipses of the abbreviations, loan-words (primarily anglicisms in the case of other languages) vulgarisms and profanities, regional dialectal expressions, logos, web addresses, links, audio and video recordings, etc.

All this points to the fact that the writing style is not different in different languages, but is immanent to the nature of the services of new media and to that kind of communication regardless of the fact whether Croatian, English or German is used.

Consequently, the authors of this research study try to explore the real literacy among young people of today resulting from the influence of the language of new media (especially Facebook and the mobile phone).

This current research study is a follow-up study to an earlier research of the literacy of young people in Croatia that was also carried out as part of a research project like this one described here in this article. In the earlier research, young people of the same age were only surveyed about their writing practices by means of a questionnaire. Hereinafter, the authors of this paper will describe in detail all the elements of the research study which was a follow-up study to an earlier questionnaire survey and they will explain the reasons why it was necessary to conduct this new study.

#### 4. Study

The research of the influence of the language of new media on language literacy of the secondary school students in their final year of Croatian elite schools (grammar schools) has been conducted in three different counties since 2014 as part of a research project funded by the biggest Croatian university, the University of Zagreb, and whose leaders and researchers are the authors of this paper. In Croatia, in recent years certain voices have been getting louder with their opinion that the use of the language of modern media has been leading to deterioration of the language literacy of young people because of their massive use by the youth of today. As some linguists share the same opinion, it was thought to be necessary to proceed to field research to determine if this was indeed the case. Pilot research was done with a smaller group of 7<sup>th</sup> grade primary school students (Filipan-Žigni<sup>ć</sup> 2012) that gave rise to a systematic study of a larger number of students. Students from elite Croatian secondary schools (grammar schools) in their final year were selected for the first study. After graduating from secondary school, they continue their education at the best colleges in Croatia and all around the world. The researchers wanted to see whether it was possible to detect and follow some linguistic discrepancies in their school works that are regularly written and evaluated twice a year. It is quite natural that in their leisure time the same students frequently use all the Internet services, and presumably, most of them Facebook messages and chat, and they are very familiar with the characteristics of the language of new media. The guiding principle was that they should indeed be able to distinguish and become aware of the fact that the language of new media belongs only to the world of new media and that at school they will have to use the standard without any deviations and without the use of the elements of the language of new media. The first questionnaire survey was done in 2014 (conceptually, it followed Dürscheid *et al.* 2010) and it consisted of four sections referring to the information on the languages they learn, information on how they write (i.e. whether they use elements of the language of new media and what they are) in the mother tongue and in foreign language(s) as well as the information on how much time and for what purpose they spend on new media. The results of that research have shown that the surveyed students are familiar with the standard and that they continue to use it in formal situations without any elements of the language of new media and that in the new media they systematically use the distinctive language of new media (Filipan-Žigni<sup>ć</sup> *et al.* 2015c).

This current research study presented in this article was a follow-up study to the above mentioned earlier research of the literacy of young people in Croatia. In the earlier research, young people of the same age were only surveyed about their writing practices by means of a questionnaire. The section of the questionnaire dealing with the use of the elements of new media contained 13 elements of the language of new media: abbreviations and clippings, emoticons, small letter writings, capital letter writings, hybrid (mixed letter) writings, use of repeated punctuation and of other characters, shouts and laughter marks, use of phrases

without the subject, phrases without auxiliary verbs, use of *aorist* and *imperfect* tenses instead of *perfekt*, regional dialectal expressions, vulgarisms and anglicisms.<sup>1</sup>

It should be noted that this current research focused on abbreviations, emoticons (iconic signs), capital letters, the use of anglicisms in Croatian and in German as a foreign language, dialectisms and vulgarisms. This was done because of the obtained results from the questionnaire survey. It was in those elements that they were very different from what had been previously expected. Regarding the previously mentioned fears present in Croatian society, this research study wanted to examine the real situation by using the WordSmith programme to explore the corpus of collected student works. Following this here presented current study, the authors plan to proceed to a new third research study of the literacy that will focus on the writings of students in their final years of vocational schools. This will enable the authors to cover the whole generation of secondary school graduates. The final stage of the possible project will focus on the writings of the 8<sup>th</sup> grade primary school students in order to compare the literacy of students at the end of primary with the literacy of students at the end of secondary school.

#### **4.1. Participants and Corpus**

The sample consisted of fourth grade grammar school students from 3 towns in Croatia (Čakovec, Varaždin and Karlovac). It is the final year of the elite secondary school. Participants in the study were 132 students for mother tongue and 132 for foreign language aged 18 or 19. Data collection was in autumn 2015 for mother tongue and for foreign language (mainly English – 75%, with some students studying German as their first foreign language – 25%. Every year German is less learned as a first foreign language by secondary school students in Croatia, so it was impossible to collect more students' texts in that language).

The corpus that was used in the research consisted of two kinds of texts written by grammar school students. One of them were texts that students had written in school. The other one were texts that they had written in new media during their leisure activities.

School texts consisted of the so-called *zadaćnicas*. They are essays that Croatian students write twice a year (at the end of the first and the second term) on a given topic and are part of the final assessment of the mother tongue and the foreign language (English and German) as prescribed by the curriculum. Usually they are compositions that have to follow a default structure with an introduction, a body or plot and a conclusion. They must be written in a formal style with some possible, occasional use of elements of colloquial Croatian, English and German respectively.

In terms of the criteria for corpus compilation prescribed and specified by Granger (2002, 2013) and Horvat (2001, 2002), these are authentic text data or writings in varieties of language that are mostly standard Croatian, English and German that had been written in the

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<sup>1</sup> One of the features of the Croatian language is that in speech *aorist* and *imperfekt* (Latin *imperfekt* or German *Präteritum*) are practically not used at all. However, following the recent boom of new media, they are increasingly being used on Facebook and in the SMS.

context of instruction of the mother tongue and foreign language (EFL, GFL) immediately prior to the collection (in synchronic time). The mother tongue corpus contained 64 282 words, the English corpus 29896, and the German corpus 7185.

Texts from students' leisure time activities (mostly Facebook) were written in a variety of the language that is mostly appropriate of the language of new media with many elements of spoken language. They refer to texts in the timeline of Facebook, messages and chat, and had been written in the native and foreign language (English and German) immediately before students voluntarily made them available to the authors of this article. The leisure time activities corpus contained a similar number of words as the school texts corpus (Croatian – 63301, English – 29767 and German – 7199).

#### **4.2. Aim of research**

The aim of the research was primarily to explore the writing of these students in their school assignments and those that they write in their leisure time in new media with regard to the existence and non-existence of the elements of the language of new media (such as abbreviations, emoticons and other iconic signs, capitals, dialecticisms, anglicisms, vulgarisms and profanities, etc.). The aim was also to compare the results obtained through the earlier questionnaire survey and the results obtained from real students' texts by means of the WordSmith 6.0 programme (Scott 2006) primarily with regard to the existence of abbreviations, emoticons (iconic signs), capital letters, anglicisms in mother tongue and German as a foreign language, regional expressions, vulgarisms and profanities.

#### **4.3. Hypotheses**

The starting hypotheses were the following:

- H1: the literacy of the students in the sample does not deteriorate because of the influence of the language used by them to write on the Internet and mobile phones;
- H2: in the texts written in their leisure time, students write in the language of new media;
- H3: in the texts written as their school assignments, students write using the standard language with practically no elements that they normally use in their language used in the new media;
- H4: there are no significant differences between the texts written in their native and foreign language with regard to the elements of the new media;
- H5: significant differences with regard to the results obtained through the questionnaire survey will be visible in the following elements of the language of new media: abbreviations, emoticons and iconic signs, capital letters, anglicisms, regional dialectal expressions and vulgarisms and profanities.

#### 4.4. Design and procedure

In order to examine the real literacy among young people of today, we examined their modes of writing in their school assignments (both for native and foreign language /English and German/) as well as their writing that they do in their free time in new media with regard to the existence or non-existence of the elements of the language of new media (such as abbreviations, emoticons and iconic signs, use of capital letters, dialecticisms, anglicisms, vulgarisms and profanities, etc.). This current research study, as it has already been stated, has been a follow-up study to an earlier research of the literacy of young people in Croatia in which students of the same age were only surveyed about their writing practices by means of a questionnaire that contained 13 elements of the language of new media. They were abbreviations and clippings, emoticons, small letter writings, capital letter writings, mixed (hybrid) letter writings, use of repeated punctuation, use of other signs, exclamations and laughter signs, phrases without subjects, phrases without auxiliary verbs, use of *aorist* and *imperfekt* tenses instead of *perfekt*, use of regional dialectal expressions and the use of anglicisms. For this study, students' pieces of work were first digitalized (264), and then excerpted into a WordSmith Tools 6.0 application (Scott 2006). The use of the elements of the new media in school texts was explored by means of WordSmith 6.0 programme (the application Wordlist – compare 2 Wordlists was used).

The research focused on abbreviations, emoticons (iconic signs), capital letters, the use of anglicisms in Croatian and in German as a foreign language, dialectisms and vulgarisms because in the earlier questionnaire survey the obtained results were in those elements very different from what had been expected. The lists of anglicisms, regional expressions, abbreviations, vulgarisms, emoticons (iconic signs) and words with capital letters were made and they were then compared with the corpus of students' pieces of work in their mother tongue and in foreign language by means of the wordlist application of the WordSmith Tools 6.0 programme. An additional analysis of the use of the elements of new media was made in private texts that students write in the leisure time (primarily texts written on Facebook). Data processing was made and the differences with respect to the earlier results obtained through a questionnaire survey have been found.

#### 4.5. The instruments of the research

The instrument used in this research study was WordSmith 6.0 programme. Two different kinds of wordlists (corpora) were compared:

- a) a list based on digitalized students' texts that were excerpted into WordSmith 6.0 programme and made by means of the Wordlist application
- b) and a list with anglicisms (*okej, sorry, mail, lajk, kul, cool, klik, share...*), regional dialectal expressions (*kaj, zakaj, delas, ve...*), abbreviations (*poz, dns, lp...*), vulgarisms and profanities (*jebi ga, peder...*), emoticons / iconic signs (:), ;)...), and capital letters

(*COMPUTER, HTmobile...*) excerpted into WordSmith and made by means of the Wordlist application.<sup>2</sup>

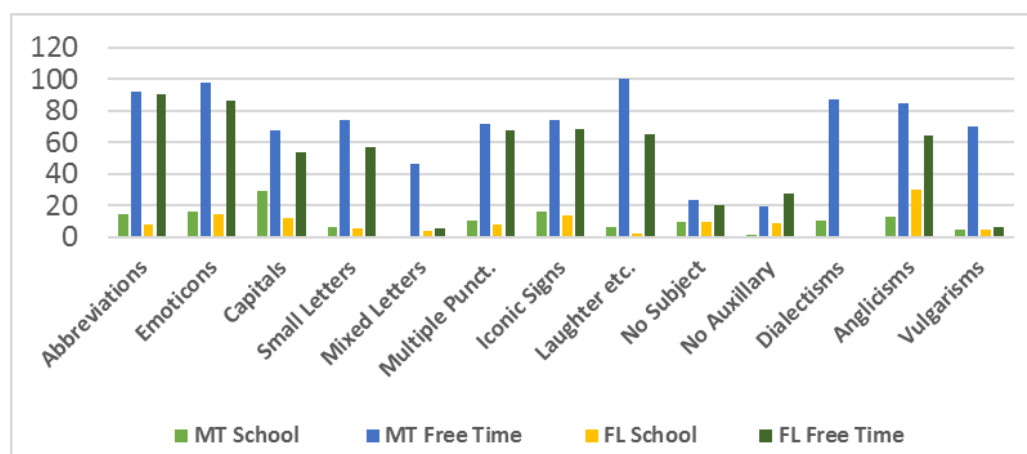
The two lists were compared by using the Wordlist application of the WordSmith Tools 6.0 programme (wordlist – compare 2 wordlists) i.e. the lists with the corpora of students school works and the private pieces of work in mother tongue and in foreign language were compared with the lists with abbreviations, regional dialectal expressions, emoticons (iconic signs), capital letters, vulgarisms and profanities and anglicism in mother tongue and in German as a foreign language.

## 5. Results and Findings

### 5.1. School Text Results

Students use elements of the language of new media in a high percentage only when using new media in their leisure time while at school the same elements are visible only to a very small extent.

Respondents in our study write almost without using the elements of the language of new media if they write at school for school purposes. On the other hand, in the texts that they write in their free time in the new media, they consistently use the language of new media with almost all its elements. The situation was virtually identical for the mother tongue and for foreign languages (English and German). The following is a graph showing the data of the previous survey, which was the origin of our new research using WordSmith 6.0 program.



**Figure 1:** Use of Elements of New Media in Assignments Written at School and for School Purposes and in Texts Written in Leisure Time in New Media (in Mother Tongue and in Foreign Language)

As it was shown in our previous study, participants in our sample generally write in standard both in the mother tongue and in the foreign language when writing at school and for school purposes whereas they use the language of new media with all its characteristic elements when writing in the new media in their leisure time. As the results obtained from the

<sup>2</sup> Filipan-Žignić, Legac and Sobo (2015c: 177).



questionnaire survey had been unexpected in elements such as: abbreviations, emoticons (iconic signs), capitals, dialectisms, vulgarisms, anglicisms (where according to the opinion of the authors the percentages of certain elements of the language of new media in school texts were too high) we had to proceed to the use of WordSmith.

As already stated, lists of anglicisms, regional expressions, abbreviations, vulgarisms, emoticons (iconic signs) were made and they were compared with the corpus of students' pieces of work in their mother tongue and in foreign language by means of the wordlist application of the WordSmith Tools 6.0 programme (see some examples of comparisons in Figs. 2 and 3).

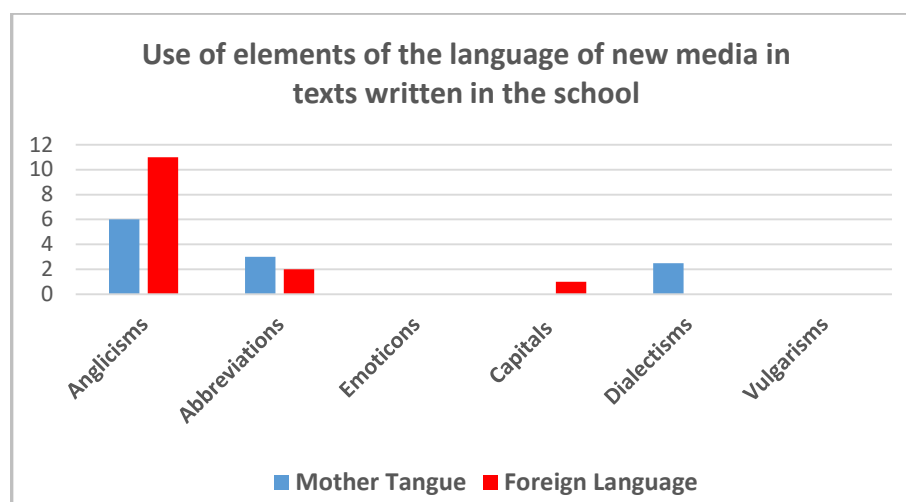
N	Word	Freq	%	Texts	% Lemmas	Set
2	ABANDONED	2		1	50,00	
3	ABILITIES	3	0,01	1	50,00	
4	ABILITY	4	0,01	1	50,00	
5	ABILITY	1		1	50,00	
6	ABLE	34	0,12	1	50,00	
7	ABOUT	80	0,27	1	50,00	
8	ABOVE	4	0,01	1	50,00	
9	ABRDAD	1		1	50,00	
10	ABSOLUTELY	1		1	50,00	
11	ABSURD	1		1	50,00	
12	ABUSE	1		1	50,00	
13	ABUSING	1		1	50,00	
14	ACCEPT	7	0,02	1	50,00	
15	ACCEPTABLE	17	0,06	1	50,00	
16	ACCEPTATED	1		1	50,00	
17	ACCEPTED	3	0,01	1	50,00	
18	ACCESS	2		1	50,00	
19	ACCIDENTS	1		1	50,00	
20	ACCORDANCE	1		1	50,00	
21	ACCORDING	4	0,01	1	50,00	
22	ACCURANCE	1		1	50,00	
23	ACCURATE	3	0,01	1	50,00	
24	ACHIEVE	4	0,01	1	50,00	
25	ACHIEVED	1		1	50,00	
26	ACHIEVING	1		1	50,00	
27	ACHIVE	1		1	50,00	
28	ACQUAINTANCES	1		1	50,00	

**Figure 2:** List of the corpus of texts in foreign language (English) compared with abbreviations (shows no match) – Results Obtained by WordSmith 6.0

N	Word	Freq	%	Texts	% Lemmas	Set
74	PUESMA	85	0,15	1	100,00	
75	BOGA	84	0,14	1	100,00	
76	ONA	84	0,14	1	100,00	
77	NJEMU	83	0,14	1	100,00	
78	JOS	82	0,14	1	100,00	
79	ONO	82	0,14	1	100,00	
80	JA	81	0,14	1	100,00	
81	TOGA	81	0,14	1	100,00	
82	ODNOS	79	0,14	1	100,00	
83	OTAC	79	0,14	1	100,00	
84	ROMAN	79	0,14	1	100,00	
85	SMO	79	0,14	1	100,00	
86	GOVORI	77	0,13	1	100,00	
87	FILIP	76	0,13	1	100,00	
88	NEŠTO	76	0,13	1	100,00	
89	ROMANA	76	0,13	1	100,00	
90	TAKODER	76	0,13	1	100,00	
91	TOME	76	0,13	1	100,00	
92	ČOVJEK	75	0,13	1	100,00	
93	KOLJEH	75	0,13	1	100,00	
94	PUESME	75	0,13	1	100,00	
95	DJELO	74	0,13	1	100,00	
96	LJUDI	74	0,13	1	100,00	
97	NI	74	0,13	2	100,00	
98	ILI	73	0,13	1	100,00	
99	ME	73	0,13	1	100,00	
100	TAJ	73	0,13	1	100,00	

**Figure 3:** List of the corpus of texts written in mother tongue (Croatian) compared with regional dialectal expressions (indicates that there is match – /indicated in red – ni = 2, 100,00%) – Results Obtained by WordSmith 6.0

The same was done for all the lists in mother tongue and English and German as foreign languages. As it would be impossible to present here the whole process of obtaining the final results of the comparisons of the two different lists, only a summary result for all the compared features is given below in Figure 4.



**Figure 4:** Use of the Elements of the Language of New Media in Texts Written in School in Native and Foreign Language – Summary Results Using WordSmith 6.0

Below is a presentation of the results obtained in the follow-up study (according to particular features) and a comparison with previous studies because the results are similar with minor variations and their separation and detailed presentation elsewhere would not be so evident.

#### 5.1.1. Anglicisms

Results of our previous research using the survey showed the following results for the use of anglicisms (questionnaire = 13% – mother tongue; 29.7% – foreign language) whereas the research results obtained in our follow-up study using WordSmith 6.0 programs were largely different (WordSmith = 6% – mother tongue; 11% – foreign language). Anglicisms are in fact those that have been in use for quite a while (e.g. *sport, hotel, klub, bestseler, diler*, etc.). In questionnaires, students had exactly those anglicism in mind, and not those that have only recently come into use and have become part of the language such as: *cool, like, click, Facebook*. Examples of that kind are represented in small numbers in the texts.

A high percentage of anglicisms (confirmed 11%) relates to the German language, which is already known for the fact that it comprises a large number of anglicisms especially in the language of young people (*star, look, fan, show, story*). But even in the students' texts in the German language they are anglicisms that had earlier become part of that language and they are not anglicisms that belong to the new wave and that are widely used by young people on Facebook.

#### 5.1.2. Abbreviations

As far as abbreviations are concerned (questionnaire = 14,5% – mother tongue; 7,6% – foreign language. WordSmith = 3% – mother tongue; 2% – foreign language) we have noticed another misconception: students were thinking of the common abbreviations like *itd., etc., tj.*,

*i.e.* and not those that have started to be used only recently in modern media like *btw*, *tnx*, *lol*, and similar.

### 5.1.3. Capitals

Regarding the use of capitals (questionnaire = 29.1% – mother tongue; 12.2% – foreign language; WordSmith 0% – mother tongue; 1% – foreign language) it was noticed that students were thinking about the regular use of initial capital letters at the beginning of the sentence or proper names, but the statement in the questionnaire aimed at the use of capitals within words e.g. *HTmobile*, *eBay*, *eBook*, *supaČ*, *eDemokracija* and similar. Those 1% that were confirmed by means of the WordSmith programme related to those terms that students were writing about and that appear on the Internet, e.g. titles and names like *RoboCop*, *eBook*, *Fly onLine* and similar.

### 5.1.4. Emoticons

The result obtained through the questionnaire for emoticons and iconic signs remains a mystery (questionnaire = 15.9% – mother tongue; 14.5% – foreign language). The analysis of the students texts by means of WordSmith 6.0 programme did not show any evidence for that (WordSmith – 0%). Theoretically possible is substitution with punctuation, but it seems pretty unlikely. It is more likely that students put some emoticons into the texts for which they do not get any grades. In the follow-up study, the authors used the texts that were marked with grades.

### 5.1.5. Vulgarisms

WordSmith 6.0 has recorded no vulgarisms or profanities (WordSmith 0%), whereas in the questionnaire it was approximately 4.6% (questionnaire = 4.6% both for mother tongue and for foreign language). The only possible interpretation is that in the questionnaire students were thinking of vulgarism that only by mistake slip into some of the school works for which they do not get any grades, whereas the texts that we explored by using the WordSmith 6.0 programme were only graded texts.

### 5.1.6. Dialectisms

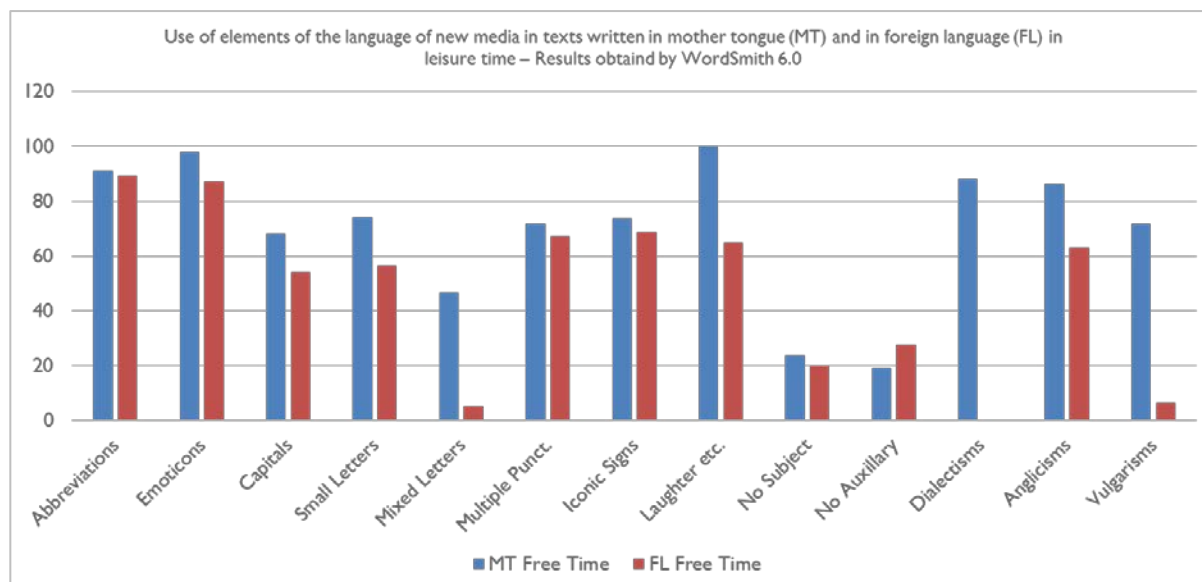
Equally WordSmith 6.0 has shown that students do not use regional dialectal expression as often as they stated in the questionnaire, percentages in actual text usage are lower (questionnaire = approximately 10.7% for mother tongue, and 0% for foreign language; WordSmith = approximately 2.5% for mother tongue). Those dialectal expressions were mainly related to the question word *kaj* or the negation *ni* and some wrong usage of the verbal forms like the future form *budem radio* and similar.

There are no dialectal expressions in foreign language texts, because students' knowledge is not good enough to enable them to use those expression in the foreign language, whereas their familiarity with such expressions in the mother tongue allows them their use.

## 5.2. Private Text Results

An additional analysis of the use of the elements of new media was made in private texts that students write in their leisure time (primarily texts written on Facebook).

The analysis of the use of elements of the language of new media in texts written on Facebook in mother tongue and in foreign language has shown that there are almost no differences between the results obtained through the questionnaire and the results of the analysis of the contents written by the same age students in their final year at the secondary school. Figure 5 shows the results obtained in our new follow-up study.



**Figure 5:** Use of Elements of the Language of New Media in Texts Written in Mother Tongue and in Foreign Language in Leisure Time – Results Obtained by Using WordSmith 6.0 Programme

The results obtained in this study using WordSmith 6.0 software do not differ in any element that we further investigated by means of the same programme (abbreviations, emoticons, capitals, dialectisms, anglicisms, vulgarisms) by more than 1.8%.

## 6. Discussion

Due to the fact that the authors of this paper were not familiar with other papers that could be fully used for comparison, they had to compare the results of this research study with the results of their own earlier research study and a similar study by Dürscheid *et al.* (2010). The earlier research paper, although it had the same aim, is not fully compatible, because it was an analysis of a questionnaire survey. Most earlier mentioned authors have dealt with the description of the variety of language or the description of the communication used in

different Internet services (Crystal 2006, 2011, Tagg 2009, Schlobinski *et al.* 2005, Storrer 2001, Tuor 2010, Filipan-Žigni<sup>ć</sup> 2012a, Filipan-Žigni<sup>ć</sup> *et al.* 2012b and many other authors). The information obtained from those sources was very important for the creation of this whole research project. It first helped the authors to draw up their questionnaire for the first survey study. Then, it helped them to form criteria to compile wordlists that were necessary for the analysis of the student corpus by means of the WordSmith 6.0 programme in their follow-up study. To some extent, the results of this research could be compared with the results of the research done by Dürscheid *et al.* (2010). They carried out a similar questionnaire survey with similar and even some identical items and they analysed students' school assignments and students' leisure time writings in new media. However, there have been some important differences between the two study projects. Dürscheid *et al.* (2010) did not use WordSmith programme as their tool, but the researchers read students texts. Their target group were younger students aged 14 to 16 years that would be closer to the age of Croatian students in their final grades of primary school. Students in the Croatian project were 18 or 19 years old. Nevertheless, it should be noted that members of the Swiss project have come to very similar results to those obtained by the Croatian project both regarding the results of the leisure time and school assignment texts. In the texts written in their spare time, Swiss students extensively use all the elements of the language of new media (deviations of forms from the standard norms on the phonological level, use of abbreviations, anglicisms, regional dialectal expressions, profanities, emoticons, etc.), whereas in school texts members of the project have almost not noticed any of those elements. They have subsequently concluded that students use the standard as well as that there exist no danger of deterioration of students' language that could be caused by an excessive use of the language of new media on Facebook or other online services.

The previous research of this Croatian team as well as this here presented follow-up research with older students (secondary school leavers) have shown almost identical results both in the Croatian language texts and in the texts in foreign languages (English and German). As for students' writings in their school texts, it has been found that they generally use standard and the use of the elements of new media has not been confirmed. On the other hand, in texts written in their spare time, they indeed use all the elements of the language of new media (including deviations from the norms of the standard language at the phonological, grafostylistic, morphological, syntactic, lexical and hypertextual level). In other words, this means that students very often use multiple punctuation marks as well as emoticons and other symbols, abbreviations and clippings, sentences without auxiliary verbs or without subjects, anglicisms in Croatian and in German, abbreviations, emoticons, vulgarisms and profanities and regional dialectal expressions, but this is only done after school and when new media are used.

## 7. Conclusions

Based on the results of this research study, the authors have come to the following conclusions. There is no evidence to support the widespread opinion that the language of the

secondary school students in their school works has deteriorated because of the use of language of new media on the Internet and the mobile phone (on Facebook).

It can be concluded that in addition to this hypothesis the results of this research study have confirmed all the other hypotheses. Results have shown that grammar school students generally use the standard in their school texts.

Significant differences with regard to the results obtained through the questionnaire survey were visible in the following elements of the language of new media: abbreviations, emoticons and iconic signs, capital letters, anglicisms, regional dialectal expressions and vulgarisms and profanities.

The differences between the results of the first questionnaire survey study and this follow-up study with the analysis of school texts by means of the WordSmith analysis of contents, i.e. the comparison of wordlists, should be largely interpreted in students' misunderstandings of questions (e.g. *btw.*, *tnx* and similar were regarded as common abbreviations like *itd.*, *etc.*, *tj.*, *i.e.*, usual capital letters at the beginning of sentences and initial capital letters in proper names were treated in the same way as the usage of capital letters within words) and other similar things for which explanations were given in the chapter on Results and Findings.

Young people extensively use the elements of new media almost only in their private texts that they largely write on Facebook (on the Internet and the mobile phone).

Results of this study have shown no significant differences between the texts in native and foreign language as far as the use of elements of the language of new media. Research studies of the influence of the language of new media on the writing in standard have so far been conducted only with grammar school students.

We can already see a possible objection to this research study by outside observers because grammar school is an elite school and these students belong to the best educated group of students. Consequently, it could be very logical that there are not many elements or few examples of those elements in their school writings. However, the intention of the authors of this paper was to eliminate fears regarding the possibility of the deterioration of the language of that particular group of students and to point to the fact that currently no dangerous tendencies are present as a result of the influence of the frequent use of modern media by grammar school students.

As it has already been earlier mentioned, the authors of this paper are planning to proceed to start a new research study with the population of students characterized by a slightly weaker level of education. They will be students from vocational schools. Only then will it be possible for the authors and the whole Croatian society to present a more authentic picture of the writing mode of the whole generation of young people.

## References

- Bieswanger, M. 2007. 2 abbrevi8 or not 2 abbrevi8: A Contrastive Analysis of different Space- and Time-Saving Strategies in English and German Text Messages. *Texas Linguistics Forum* 50: 1-12.

- Boyd, D., S. Golder, and L. Gilad. 2010. Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter. *Proceedings of the 43rd Hawaii International Conference on Social Systems*. Kauai: University of Hawai'i at Manoa: HICSS 43. <http://www.danah.org/papers/TweetTweetRetweet.pdf>.
- Crystal, D. 2006. *Language and the Internet*. University Press: Cambridge.
- Crystal, D. 2011. *Internet Linguistics*. London, New York: Routledge.
- Döring, N. 2002. Kurzm. wird gesendet: Abkürzungen und Akronyme in der SMS-Kommunikation. *Muttersprache 2*: 97-114.
- Dürscheid, C., Wagner, F. and S., Brommer. 2010. *Wie Jugendliche schreiben. Schreibkompetenz und Neue Medien*. Berlin and New York: de Gruyter.
- Filipan-Žigniċ, B. 2012a. *Jezik novih medija*. Split: Matica hrvatska.
- Filipan-Žigniċ, B, K. Sobo, and D. Veliċki. 2012b. SMS Communication – Croatian SMS Language Features as Compared with those in German and English speaking Countries. *Revija za elementarno izobraževanje 5*: 5-22.
- Filipan-Žigniċ, B. 2013. *Jezik moje bake i internet*. Ćakovec: Matica hrvatska.
- Filipan-Žigniċ, B. and L. Mošmondor. 2015a. Jeziċna promjena uzrokovana novim medijem internetom. Primjer Facebooka na hrvatskom i njemaċkom jeziku. In S.A. Toth (ed.), *A Magyar Tudomány napján elhangzott horvat (es angol) nyelvű előadások gyűjteménye 2013-IG*, 27-45. Baja: Eötvös József Főiskolán.
- Filipan-Žigniċ, B. 2015b. Sprache von kroatischen und deutschen Weblogs. In J. Toth (ed.), *Language and its Study between Tradition and Innovation*, 73-84. Frankfurt am Main, Berlin, Bern, Bruxelles, New York, Oxford and Wien: Peter Lang.
- Filipan-Žigniċ, B., V. Legac, and K. Sobo. 2015c. New Literacy of Young People Caused by the Use of New Media. *Procedia-Social and Behavioral Sciences 1*, 192C: 179-186.
- Granger, S., Dagneaux, E., Meunier, F., and M. Paquot. 2002. *International Corpus of Learner English. Version 2. Handbook and CD-ROM*. De Louvian: UCL Presses universitaires.
- Granger, S. 2013. A Bird's-eye view of learner corpus research. In S. Granger, J. Hung, and S. Petch-Tyson (eds.), *Computer Learner Corpora, Second Language Acquisition and Foreign Language Teaching*, 3-33; Amsterdam and Philadelphia: Benjamins.
- Herring, S., Kouper, I., Scheidt, L.A., and E. Wright. 2004. *Women and Children Last, The Discursive Construction of Weblogs. Into the Blogosphere*. University of Minnesota. [http://blog.lib.umn.edu/blogosphere/women\\_and\\_children.html](http://blog.lib.umn.edu/blogosphere/women_and_children.html).
- Herring, S., Stein, D., and T. Virtanen. 2013. *Introduction to the pragmatics of computermediated communication*. Berlin and Boston: de Gruyter Mouton.
- Horvath, J. 2001. Introductions and Conclusions in advanced EFL Students' Writing: Evidence from the Corpus. *Teaching English with Technology 1*(5): 3-12.
- Horvath, J. 2002. Advanced writing in English as a Foreign Language. A Corpus-Based Study of Processes and Products. Pecs: Lingua Franca Csoport.
- Huber, O. 2002. Hyper-Text-Linguistik. TAH: Ein textlinguistisches Analysemodell für Hypertexte. Ph.D. diss., Ludwig-Maximilians-Universität, München. [http://edoc.ub.uni-muenchen.de/archive/00000921/01/Huber\\_Oliver.pdf](http://edoc.ub.uni-muenchen.de/archive/00000921/01/Huber_Oliver.pdf).
- Koch, P., and W. Österreicher. 1994. Unterscheidung von medialer und konzeptueller Mündlichkeit bzw. Schriftlichkeit. In G. Hartmut and O. Ludwig (eds.), *Schrift und Schriftlichkeit. Writing and Its Use*, 587-604. Berlin and New York: de Gruyter.
- Krishnamurthy, B., P. Gill, and M. Arlitt. 2008. A few chirps about twitter. *Proceedings of the First Workshop on Online Social Networks. WOSP '08*. ACM and New York, 19-24. doi:10.1145/1397735.1397741.
- Pavliċević-Franiċ, D. 2009. SMS-poruke – nova lingvistika komunikacije u diskursu novih medija. In M. Brdar, M. Omaziċ, B. Belaj, B. Kuna (eds.), *Lingvistika javne komunikacije: Sociokulturni, pragmatički i stilistiċki aspekti*, 231-252. Zagreb, Osijek: HDPL.
- Pavliċević-Franiċ, D., T. Gazdiċ-Aleriċ, and K. Aladroviċ Slovaċek. 2010. Utjecaj engleskoga jezika na funkcionalnu gramatiku hrvatskoga jezika. In D. Pavliċević Franiċ and A. Bežen (eds.), *Društvo i jezik – višejeziċnost i višekulturalnost*, 234-247. Zagreb: UF; ECNSI.

- Schlobinski, P. and T. Siever. 2005. Sprachliche und textuelle Aspekte in Weblogs. Ein internationales Projekt. *Networks*, 46. Hannover. <http://www.mediensprache.net/networx/networx-46.pdf>.
- Scott, M. 2006. *Oxford WordSmith Tools 6.0*. Oxford: Oxford University Press.
- Storrer, A. 2001. Getippte Gespräche oder dialogische Texte? Zur kommunikationstheoretischen Einordnung der Chat-Kommunikation. *Sprache im Alltag. Beiträge zu neuen Perspektiven in der Linguistik*, 439-466.
- Tagg, C. 2009. *A Corpus Linguistics Study of SMS Text Messaging*. Birmingham: The University of Birmingham. Dissertation. Manuscript.
- Tuđman-Vuković, N. 1999. Neke odlike jezika interneta – primjer elektroniċke pošte. In L. Badurina, N. Ivanetiċ, B. Pritchard and D. Stolac (eds.), *Jeziċna norma i varijeteti*, 797-805. Zagreb, Rijeka: HDPL.
- Tuor, N. 2010. Online-Netzwerke. Eine kommunikationstheoretische, sozialpsychologische & soziolinguistische Analyse. *Networx* 55. <http://www.mediensprache.net/networx/networx-55.pdf>.
- Vlasteliċ, A., and S. Vrbanec. 2014. Btw, tnx, što me lajkaš! Lol :) Istraživanje utjecaja medija na rjeċnik hrvatskih studenata. In A. Peti-Stantiċ, M.M. Stanojeviċ and G. Antunoviċ (eds.), *Standardni jezici i sociolekti u 21. stoljeću*, 177-194. Zagreb: Srednja Europa: HDPL.
- Werry, Ch. 1996. Linguistic and Interactional Features of Internet Relay Chat. In S.C. Herring, (ed.), *Computer-mediated Communication. Linguistic, Social and Cross-cultural Perspectives. New Series* 39: 47-63.
- Žic-Fuchs, M. and N. Tuđman-Vuković. 2008. Communication technologies and their influence on language: Reshuffling tenses in Croatian SMS text messaging. *Jezikoslovlje* 91(2): 109-122.



# Text rhythmic system: Its energetic and subliminal potentials

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## Abstract

The article introduces scientific considerations concerning the energetic nature and origin of rhythm subliminal potential in a spoken text as well as the mechanisms of its impact on the recipient. The paper advances the idea that rhythm energetics and its subliminal potential is based on such postulates: (1) rhythm is generated in the speaker's psyche at the levels of his/her unconscious (or existential being) and subconscious (or mental and transcendental beings) spheres; (2) the text rhythmic system has a definite emotional and pragmatic potentials that realize a latent manipulative and subliminal influence; (3) generation of the spoken text tempo-rhythm is carried out by means of integrating micro-rhythms of all levels of the speaker's inner speech into the internal macro-rhythm, which is materialized in the form of an outer tempo-rhythm as a complex means of achieving a subliminal effect of speech. The article also outlines the prospects of studying a subliminal nature of rhythm.

**Keywords:** rhythm, tempo-rhythm, energetic potential, mechanism of generation, subliminal influence

## 1. Introduction

Rhythm as a unique communicative phenomenon is actively described by linguists on the grounds of contemporary theoretical views and experimental data, obtained by the researchers of such areas of scientific knowledge as philosophy, study of art, psychology, musicology, physiology, computer science, mathematics, neuropsychology, psycholinguistics, psychophysiology, neurophysiology, psychoacoustics, etc. since its treatment as a purely phonetic or syntactic phenomenon is not sufficient for the solution of emerging problems connected with the functioning of rhythm in prosaic texts.

At the same time linguists have recently admitted that the issue of energetic nature of the rhythm's subliminal potential generation is one of the most actual issues of the general problem of rhythm functioning in communication. Nevertheless, the papers known in linguistic literature lack theoretical results that present a systemic hypothesizing of scientific views on the energetic nature of the origin of speech rhythm subliminal potential.

Therefore, the objective of the undertaken methodological study is a systemic hypothesizing of scientific considerations concerning the energetic nature and origin of rhythm subliminal potential in a prosaic text as well as the substantiation of mechanisms of its impact on the recipient.

## **2. Conceptual and theoretical background for studying rhythm energetics and its subliminal potential in prosaic texts**

Proceeding from the synergism of speech generating and decoding mechanisms, speech subliminal effect is interpreted in the paper as the result of the spoken text rhythmic system's functioning whose elements, along with the rhythm proper, comprise the means of all language levels traditionally studied by linguists.

Due to this, rhythm is regarded in the paper not only in its narrow meaning but also in its broad understanding when it interacts with the means of other language levels. Such a consideration is based on the idea that any individual component of the prosodic system without interaction with its other components is not sufficient to form a stable rhythmic concept in the person's auditory-and-emotional memory, being capable of performing the function of a particular rhythmic concept-prototype in his/her psychic sphere. This is important since subliminal effects can only be achieved when the sender and recipient's communicative cultures coincide, the prerequisite of which is the presence of an adequately generated and decoded rhythmic concept-prototype in their memory.

The use of these ideas as well as the theoretical principle of conserving the utterance emotional-and-pragmatic potential (Kalyta 2007) allowed us to formulate the quintessence of energetic approach to linguistic studies. It consists in the attempt to describe phonetic phenomena as a result of the stochastic speech generation, whose motive force is the psycho-physiological energy with its inherent ability to be redistributed between an individual's consciousness and spheres of his/her sub- and unconsciousness, responsible for the speaker's choice of linguistic and paralinguistic means of communication.

Thus, employing a strictly scientific approach, it is rational to carry out a brief review of the rhythm properties, peculiarities of its manifestation and characteristics, highlighted in a number of works by Ukrainian and foreign researchers, who describe rhythm in its broad meaning. As regards the functional purpose of rhythm in communication, there exist some opinions, according to which rhythm is viewed as a means of (1) stimulating a man to read and write (Goux 2003: 14); (2) reviving a prose (*ibid.*); (3) realizing structural, text-forming and expressive-and-emotional functions of speech (Jazykoznanie 1998: 416); (4) producing an artistic impact on the recipient (Zhirmunskij 1975: 569); (5) causing a psychological and emotional effect (Bojchuk 2014: 130); (6) focusing the reader's attention on particular elements of the message (Gumovskaja 2000: 6); (7) organizing the person's own speech (Meschonnic 1990: 71); (8) forming the text structure as well as the processes of conveying and perceiving information (Gumovskaja 2000: 7); (9) creating coherence and cohesion of the text (Efremov 2012: 90); (10) achieving a designated effect in speech (Babicheva 2003: 10); (11) generating and realizing the text subliminal influence (Boltaeva 2003, Bojchuk 2014:

130). The stated above makes it obvious that the researchers seek to objectify the subliminal function of rhythm from the point of view of the individual who generates the text or the individual who perceives it.

Thus the present research of rhythm energetics and its subliminal potential in prosaic texts is based on the following postulates:

1. rhythm is generated in the speaker's psyche at the levels of his/her unconscious (or existential being) and subconscious (or mental and transcendental beings) spheres;
2. the text rhythmic system has a definite emotional-and-pragmatic potential that realizes a latent manipulative and subliminal influence;
3. generation of the spoken text tempo-rhythm is carried out by means of integrating micro-rhythms of all levels of the speaker's inner speech into the internal macro-rhythm, which, being under control of the individual's consciousness, is materialized in the form of an outer tempo-rhythm.

### **3. Energetic approach application to the study of the subliminal potential of the text rhythmic system**

#### ***3.1. The results of studying the text rhythm: its definition and functions***

Guided by the basic stipulations of the method of systemic analysis applied to the functions nominated by the aforementioned researchers, one can easily be convinced that the main function of communicative rhythm in general and text or utterance rhythm in particular lies in the actualization of their subliminal influence. Moreover, taking into account its importance, the subliminal function of rhythm should be regarded and, accordingly, interpreted at all levels of its actualization as a strategic one (Kalyta 2012: 48-49, Klimenjuk 2007: 165).

In this case it is quite logical to assume that, according to their roles, all other functions reviewed above should be given a status of tactical functions, methods, ways, techniques and means, actualizing the rhythm's subliminal influence. This approach not only makes it possible to unambiguously define the leading role of rhythm in the text subliminal potential but also enhances the topicality of studying other means of speech subliminal influence in a direct correlation with rhythm as a basic element of the spoken text.

An equally important issue for the analysis undertaken in this paper is, most likely, the specificity of rhythm manifestation. Traditionally it is appropriate to regard speech rhythm as "...a regular recurrence of similar and commensurable speech units, performing structural, text-forming, expressive and emotional functions" (Jazykoznanie 1998: 416).

It is obvious that the results of realization of these and a considerable number of the above mentioned functions of rhythm should inevitably generate a wide range of alternatives of its manifestation in the variety of existing forms of speech communication.

As is known (Mourot 1960: 11-15), rhythm manifests itself in the regularity of alternating syntactical parts of sentences, the number of stresses and syllables, the character of sounds' use (alliteration, homophones); syntactical parallelism; distribution of the parts of the whole

text or phrase according to the increasing or decreasing order in the size of these parts; repetitions (lexical or semantic); equality or inequality of the ascending and descending intonation contours of the utterance and a few other phenomena. In compliance with this, G.R. Gachechiladze emphasizes that a prosaic rhythm reveals itself predominantly in the alternation of pauses and sense units of different length, as well as the repetition of logical stresses, successions of ascending and descending intonation contours, symmetrical sentence structure and syntagms arrangement, sometimes by the introduction of refrain, alliteration, inner rhyme and assonance (Gachechiladze 1970: 208).

Viewing rhythm as a means of artistic influence, V.M. Zhirmunskij considers it as the main attribute of the text syntactic level (Zhirmunskij 1975: 575-576). Proceeding from the semantic and informational components of the text, E.I. Bojchuk, in her turn, accentuates that rhythm manifests itself in the construction of the text plot, in its architectonics and, particularly, in the system of language expressive means, with the help of which the images of literary works are created (Bojchuk 2014: 130).

Defining rhythm as a symmetry of two or several homogeneous phenomena that have a similar duration and are similarly arranged in time, E.-L. Martin reveals its manifestation in the multitude of different symmetries (Martin 1924: 170) and states that the symmetry of rhythmical stresses is the best known one (*ibid.* 176-177).

Within the lexical rhythm S.V. Boltaeva points out two forms of its manifestation: explicit and implicit ones. The explicit means of rhythm actualization include anaphora and a complete lexical repetition. The implicit forms consist in manifestation of rhythm by means of a repeated representation of the already mentioned notion with the help of synonyms of its primary nomination, singling out the properties and features inherent to it as well as using word-forming derivatives and the lexical units, which are semantically close to this notion at the level of associations (Boltaeva 2003: 14). In her work, as regards the latent rhythmical schemes of speech unit's semantics actualization, which facilitate a continuous intensification of the subliminal effect of a particular idea, the author underlines that the conclusive fragment, summarizing the concepts of the text in the original rhythm of their phonetic markers, is notable for its particular complexity (Boltaeva 2003: 20).

The facts stated above do not leave space for doubts that rhythm as a unique phenomenon of speech reveals itself almost at all levels of the language. Here with the equal objectivity belong the following levels: sound, intonation, lexical-and-semantic, syntactic (Jazykoznanie 1998: 416, Gumovskaja 2000: 105), phonetic, lexical, grammatical and structural-and-compositional (Bojchuk 2014: 130), prosodic-and-syntactic, semantic, compositional, plot-and-imagery (Bogatova 2009: 19), plot, imagery, space and time, thematic (Arustamova 1998: 6), etc.

It's quite obvious that a diversity of terms describing the mentioned levels explicitly reflects the authors' approaches or aspects of their treatment of speech rhythm. It is fairly convenient for the metaphorical description of the peculiarities of speech rhythm manifestation. Yet, the experimental linguistics practice requires a more strict regulation of the levels of examining rhythm actualization, and it appears quite reasonable to confine them to their classical hierarchy: phonetic, morphological, lexical-and-semantic, and syntactic ones

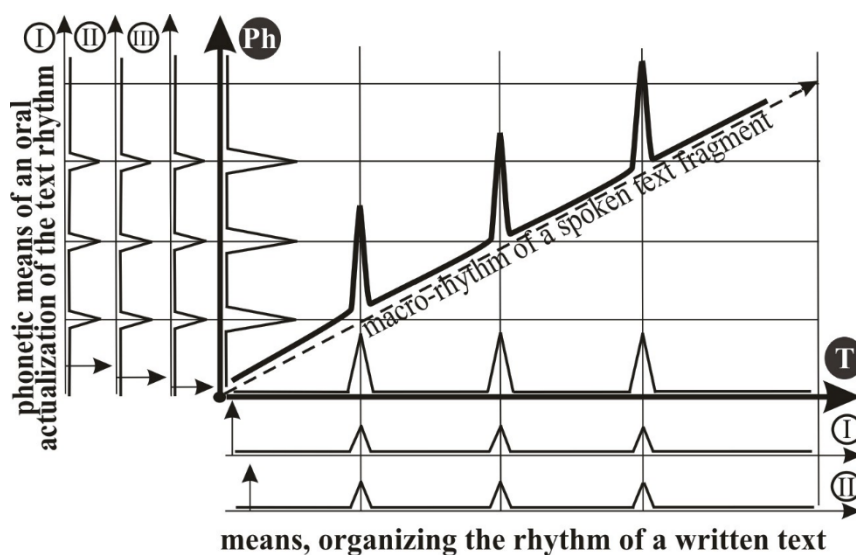
(Kochergan 1999: 69). Therefore, further on we shall adhere to the classical hierarchy of rhythm actualization levels and a traditional terminology of their denotation.

Let us address one more rather important fact. It consists in the following: the natural variety of objectives and tasks of linguistic studies of rhythm, connected with specific approaches, viewpoints and aspects of its research, gives rise to a considerable number of its definitions, that traditionally appear in a great number of works (Lingvisticheskij 1990: 416, Boudreault 1968: 28, Carr 2008: 150, Roach 2009: 107, Trask 1996: 311 and others), or specific definitions, suggested in some other works (Gumovskaja 2000: 26, Martin 1924: 170, Zhirmunskij 1975: 439, Crystal 1969: 161-165, etc.).

However, in this case for the purpose of concepts unification it seems reasonable to adhere to the most general view on *rhythm* which we understand as *the energetic foundation or communicative potential unfolding in time and providing a concentration of the utterance or text subliminal influence on the emotional and rational bases of the recipient's psychic sphere by means of alternating its manifestations that vary in the nature of their origin, regarded in linguistics as the result of a complex interaction of the language means that belong to different levels.*

### 3.2. Modeling the mechanism of the rhythm subliminal effect of the spoken text

Proceeding from such a definition of rhythm we obtain the possibility to form a conventional graphical model presenting the mechanism of the rhythm subliminal potential integration in the spoken text (Fig. 1).



**Figure 1:** Model, representing the mechanism of subliminal potential integration of the spoken text's rhythm

Symbol explanation: T – syntactic level of the text; I – lexical and grammatical means; II – stylistic means;

Ph – phonetic level of the text; I – segmental means; II – syllabic-and-accentual means; III – suprasegmental means

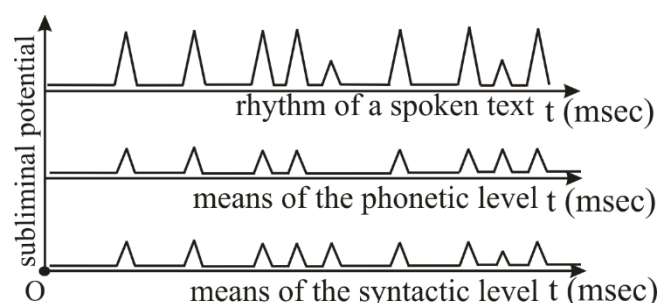
With the purpose of considering the logic of the model construction let us first pay attention to K.S. Stanislavskij's ideas, who clearly differentiated the notions of rhythm and tempo-rhythm of person's thinking and speaking activities into inner and outer types of

rhythm. In his opinion, in order to bring music, singing, words and actions to an accord, one needs rather the inner, or spiritual tempo-rhythm, than the outer, or physical one. Thus, rhythm should be felt in a sound, word, action and gait, throughout the whole performance (Stanislavskij 1954: 233). Therefore, speaking of rhythm, K.S. Stanislavskij had in mind exactly this inner rhythm (*ibid.*: 281) and made an attempt to explain its inner intangible characteristics (*ibid.*: 289). Understanding the integration of actions, music, singing, speech and actor's emotions into one outer rhythm as a major force of the performance, he chose to speak predominantly of the inner rhythm of his/her emotional experience (*ibid.*: 281).

In any case, we can assume that what K.S. Stanislavskij meant was a natural coordination of the actor's inner biological rhythm with the psychological and subliminal rhythm of the spoken text, which, as a result of its final shaping by prosodic means, is transformed into the outer rhythm of the materialized text fragments. Thus, interpreting the mentioned idea within the framework of linguistic terms we acquire two generalizing coordinates of the speaker's inner rhythm formation: T – syntactic level of the text and Ph – phonetic level of the text rhythm, which are, in fact, the accumulators of the language means subordinated to them. As for the syntactic level of the text, these are lexical, grammatical and stylistic means. In its turn, the phonetic level of the text rhythm accumulates segmental, syllabic-and-accentual and prosodic means.

In the process of language means' active interaction at the syntactic (T) and phonetic (Ph) levels of speaking and thinking activities there emerge rhythmical structures which are a consequence of the resonance/dissonance of the psycho-physiological energy of these means' generation, the result of which K.S. Stanislavskij could well identify as the inner rhythm of the text. Then with a considerable degree of certainty we can assume that the integration of inner rhythms into one single rhythm of the text materialization in speech, occurring as a result of the same resonance mechanism, was perceived by K.S. Stanislavskij and, accordingly, it must be perceived by the listener as the outer rhythm.

We believe that the logical elaboration of the conceptual views, laid into the model, represented in Fig.1, should be the basis of the process of modeling of a qualitative picture of the integration of the spoken text's rhythm subliminal potential as a consequence of its syntactic and phonetic means' interaction. The results of such modeling are presented in Fig. 2.



**Figure 2:** Graphical interpretation of the formation of the spoken text rhythm's subliminal effect

In this context let us remind that the intensity of the text's subliminal potential is essentially conditioned by rhythm as a dynamic factor of the text formation. Herewith a

specific level of the spoken text's subliminal influence is determined, in the first place, by its rhythmic organization (German and Pishhal'nikova 1999, Rozhnov, Rozhnova 1987), reflecting the result of the addressor's speaking and thinking activities that transmit the energy of speech subliminal influence into the addressee's psychic sphere in the form of an open self-developing system.

The intensity level variability of the text rhythm subliminal potential occurs, as it has been mentioned above, as a result of resonance/dissonance of psycho-physiological energies of the inner rhythms actualized with the help of different language means used by the speaker. The emergence of resonances, achieved by way of doubling the components of the message, facilitates the appearance of additional semantics and thus it manipulates the recipient's attention (Jazykoznanie 1998: 414-415, Kiklevich 1998).

Dissonance, on the other hand, is based on the effect of rhythm interruption, which leads to the disruption of trance states, created by the continuously repeating stimuli (Kotljachkov 2001: 18) and creating a kind of arrhythmic text, capable of evoking controversial sensations in the recipient's mind (Bojchuk 2014: 131, Arustamova 1998: 17). Figuratively speaking (see Fig. 2), the dynamics of the outer rhythm arises in the moments of its transition from order to irregularity and vice versa (Sementsov 1972: 15).

Proceeding from this, on the upper axis of Fig. 2 we have reflected a qualitative pattern of the way the outer dynamic rhythm of the spoken text unfolds in time, including a specific alternation of its resonance and dissonance results. Hereby the relative peaks of the inner rhythms' energies of the text syntactic and phonetic levels, accumulated in the outer rhythm, demonstrate the values of subliminal potentials influencing the listener in the process of perceiving separate fragments of the spoken text's rhythm actualization.

### **3.3. A cognitive model of the stages of tempo-rhythm generation and decoding**

As we see, from whatever viewpoint the rhythm as an object of cognition is considered, there inevitably arises a scientific problem of comparing the rhythm of two and more communicants which is traditionally resolved in linguistics by means of normalizing its main parameters. As if anticipating this, K.S. Stanislavskij (Stanislavskij 1954: 289) paid a special attention to the tempo-rhythm as a unique phenomenon, characterizing the dynamics of the individual's materialization of the spoken text. It goes without saying that similarly to the tempo, K.S. Stanislavskij differentiated the inner and outer tempo-rhythms of the person's speaking and thinking activities. The essence of such a division (Temporitm) consisted in the inner tempo-rhythm being understood as the individual's psychic state characterized by the speed of thinking processes and emotionality. The inner tempo-rhythm materializes in the manner of speech, vigor of body gestures and the speed of the speaker's relocation in space.

Due to this, a tradition has been formed in the descriptions of tempo-rhythm to attribute the inner tempo-rhythm directly to the processes of the individual's thinking, and to assign the outer one to his/her verbal actions (Osnovy). K.S. Stanislavskij also emphasized that a proper physical behavior of an actor in the role depends on the correct tempo-rhythm of his/her inner life, as the inner tempo-rhythm influences the tempo-rhythm of his/her

behavior. At the same time, the outer tempo-rhythm defines, in its turn, the inner emotional state of an actor, exciting in him/her the adequate emotions.

The problem of auto-subliminal function of rhythm presented in such a light is in itself interesting and important, in our opinion, for teaching expressive speaking, though it has not been thoroughly studied yet by linguists, psychologists and educationalists.

This issue is closely connected with another equally interesting and thought-provoking problem, which stimulates us to discuss cognitive models of the processes of the text tempo-rhythm generation and decoding in oral communication. In order to present these cognitive models let us make use of the idea according to which in the psychic spheres of the addressor and the addressee there occur the following transformations: in the first case the inner tempo-rhythm transforms into the outer one, in the second case a reverse process is observed. On the basis of this idea the cognitive model of rhythm transformation processes that take place in the addressor's psychic sphere, is given in Fig. 3.



**Figure 3:** A cognitive model of the stages of tempo-rhythm generation in the addressor's psychic sphere

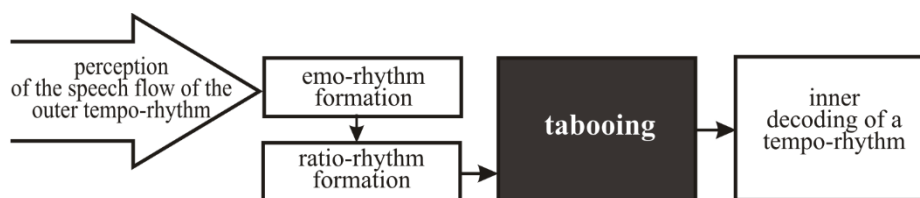
The model demonstrates that the first stage of the process of tempo-rhythm production in the addressor's psychic sphere is the generation of the inner tempo-rhythm which is unambiguously conditioned, as it has been described above, by the communicant's inner psychological and emotional states. Consequently, the initial tempo-rhythm scheme, which arises in such a way and is not apprehended by the individual, forms a particular structure of the emotional rhythm (or emo-rhythm) in the existential sphere (Kalyta 2015: 331-332) of his/her spiritual being. On account of the dialectic interaction of the emotional and rational bases of the speaker's psychic beginning, at the third stage of tempo-rhythm generation there occurs a corresponding correction of the emo-rhythm structure in his/her subconscious sphere, which results in the formation of the rational rhythm structure (or ratio-rhythm).

The essence of the fourth stage of tempo-rhythm generation, which we nominated as tabooing stage, consists in the fact that, in accordance with the norms of speech rhythm organization, formed in the process of the speaker's cultural development as well as prohibitions inherent to his/her psychic sphere, the speaker's consciousness, while defining the logic of the ratio-rhythm structure, selects an adequate tempo of its actualization thus ensuring its speech materialization in the form of the outer tempo-rhythm.

Similarly, but in a reverse order (see Fig. 4) the process of the addressee's tempo-rhythm decoding is performed. The model in Fig. 4 demonstrates that under the influence of the outer tempo-rhythm of speech flow, the emergence of the perceived text's emo-rhythm takes place in the addressee's psychic sphere. The inner emo-rhythm structure is formed on the basis of the emo-rhythm concepts' prototypes embedded in the recipient's emotional memory (Klimenjuk 2010: 221). At the second stage of the decoding process there in a similar way appears the analogue of the ratio-rhythm structure. Emo- and ratio-rhythms thus transformed and being integrated into tempo-rhythm, at the third stage undergo the tabooing



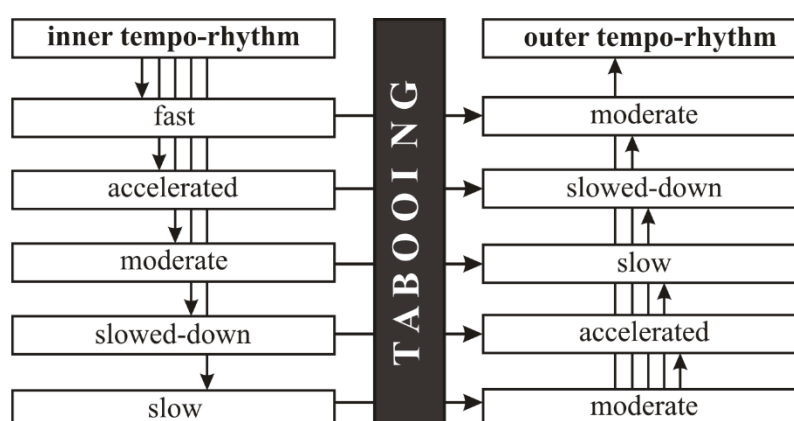
enforcement by the recipient's consciousness. As a result of the fourth stage of text decoding by the addressee, his/her consciousness, excluding the tabooed elements, forms the structure of the inner tempo-rhythm decoded by him/her using the concepts-prototypes available as a building material in the individual's memory.



**Figure 4:** A cognitive model representing the stages of the process of the text tempo-rhythm decoding by the addressee

We shall observe here that in both cases the process of tabooing is performed by a specific neural structure of the communicants' brains, the functioning of which is an integral element of the work of his consciousness. N.P. Behtereva termed this structure as an error detector (Behtereva 2007: 120).

It is also known that the processes of transforming the inner tempo-rhythm into the outer one, inherently depending upon the peculiarities of the communicant's psychic sphere and his/her emotional state (Stanislavskij 1954), can in a number of cases lead to an unexpectedly acute difference of their types. This effect of tempo-rhythm generation in speech is reflected in the model, represented in Fig. 5.



**Figure 5:** The model of tabooing and transformation of the inner tempo-rhythm into the outer one

Thus, for instance, the addressee's inner tempo-rhythm, accelerated by the offence, is transformed by his/her consciousness into a decelerated type of the outer tempo-rhythm as a result of tabooing which appeals to the interlocutor's higher social status and norms of communication as well as the necessity to constrain his/her emotions.

It is quite obvious that other variants of transformations indicated in the model are realized in real communication as a result of resolving by the consciousness of contradictions arising between the speech behavior norms acquired by the speaker, extra-linguistic conditions and the topic of communication, on the one hand, and the inner tempo-rhythm, generated by the speaker's psychic sphere, on the other hand. Let us pay a special attention to the varieties of tempo-rhythm types, used in the model, which we have borrowed from our

phonetic practice (Kalyta 2001: 97-98). There are two reasons that motivate us to do this. The first one consists in the fact that the gradations of tempo-rhythm types traditional for the scientific works of psychologists and theatre experts (e.g. ultimate passivity, inertness, inactive depression, spiritual downfall, almost dying state; a gradual transition to an energetic, cheerful mood; readiness to any action, a clear purpose in the energetic, fruitful action; tempo-rhythm of the alerted attention, when a person has to make an immediate and definite decision; the rhythm of decision-making; abrupt and precise rhythm of life-assertion; overcoming serious obstacles in the energetic action; the first feeling of danger; alarm or a violent joy; a hectic pulse of life; a moment before falling into an abyss, before the shooting by a firing squad; the beginning of madness; loss of ability to apprehend and regulate one's actions, etc. (Gradacii)) are practically inapplicable in phonetic research because when viewed as the elements of the morphological classification, the mentioned types lack a common classifying feature, having instead as its criteria the inner states of the individual, his/her readiness/unreadiness to act, feelings, etc.

The essence of the second reason (and this is particularly important) consists in the fact that the unified gradation of the inner and outer tempo-rhythms according to the zones of their actualization, which we employed in the model (Fig. 5), makes it possible not only to assess the results of the inner tempo-rhythm transformation into the outer one in terms of quantity, but also to compare the dynamics of the occurring changes on the basis of normalizing the figures obtained within these zones. The application of such an approach will facilitate the experimental identification of the regularities of the mentioned tempo-rhythms' dynamics by means of calculating the factors of their acceleration and deceleration.

A further development of the methodology aimed at the quantitative assessments of the manifestations of tempo-rhythm's or spoken text rhythm's subliminal potential on the basis of the idea represented the model in Fig. 2, will make it possible to launch a practical construction of rhythm cards, or maps, and corresponding tempo-rhythm cards of any speech fragment. It should be noted here that an essential moment, that permits to construct the tempo-rhythm cards of a spoken text, is that we obtain a possibility to perform a synarchic modeling of text fragments with a similar or varying structures of tempo-rhythm actualization, the results of which can be easily assessed with the help of the appropriate factors causing the tempo-rhythm compression.

Considered thereby complex methodological problems of studying the rhythmic structure of the text allowed us to define a more complete and comprehensive content of the "tempo-rhythm" concept as a unique speech phenomenon.

According to this, *text tempo-rhythm*, being the dominant means of speech subliminal effect, is formed through the integration of micro-rhythms of all levels of the individual's inner speech into an inner macro-rhythm which, being adjusted by his/her emotional thinking that occurs in the existential sphere (or unconscious sphere), is structured in the form of an internal tempo-rhythm and then under the influence of a dialectical interaction of the speaker's rational (that considers specific communicative conditions) and emotional beginnings, is converted in his/her mental and transcendental spheres (or subconscious sphere) into the corresponding rational- and emo-rhythms, which are transformed as a result of consciousness' processing of the

*actual conditions and norms of communication into the outer tempo-rhythm of an utterance materialized in speech.*

Hence, naturally, a question ensues regarding the hierarchy of the terminological system elements, which includes the notions of micro-rhythm, macro-rhythm, inner and outer tempo-rhythms. While considering this question we shall primarily remark that the authors of a number of linguistic works refer the notions of micro- and macro-rhythms to different levels of the text structure, as well as the language means used in it. Thus, M.M. Girshman in his work singles out a speech “micro-rhythm” and a compositional “macro-rhythm” (Girshman 1982: 78), emphasizing that the rhythm functions at all levels of literary fragments that describe actions or fragments rich in imagery, or in repetitions and contrasts of certain themes, motives, images and situations, in the regularities of plot movements, the interrelations of different compositional speech units, and in the unfolding of the system of images and characters, etc. (*ibid.*: 76). In her turn, E.S. Sergejeva considers the integrative role of micro- and macro-rhythm which ensures the form-making function of rhythm (Sergejeva 2007). A number of authors (see Boltaeva 2003: 14) believe that a compositional level of text structure is represented by macro-rhythm, while micro-rhythm studied by phoneticians creates the melody of the author’s narration. In other works (Arustamova 1998: 17) micro-rhythm is explicitly referred to the author’s or speaker’s psychological spheres and it is believed that macro-rhythm is directly materialized in communication. There also exist approaches (Programmirovanie muzykoj), according to which micro-rhythm is attributed to the alternation of separate sounds, and macro-rhythm is ascribed to utterances or text fragments.

In pursuance of a well-known principle of relativity of any conceptual classifications we recognize the authors’ objective right to refer micro- and macro-rhythms to the whole plots, structures, structural elements of all text levels, down to the separate sounds. Moreover, using the mentioned principle in the conceptual system under our consideration, we believe that it is rational to term the alternation of any speech manifestations, which vary in the nature of origin and means of their actualization, that arise in the process of formation of both inner and outer rhythms, directly integrated into inner and outer tempo-rhythms.

According to this logic in Fig. 1 (see the X-axis) we observe a macro-rhythm of the syntactical level of the text, integrating within itself the micro-rhythms of lexical-and-grammatical as well as stylistic language means’ actualization. In its turn, the macro-rhythm of the utterance phonetic level, represented on Y-axis, is formed on the basis of segmental, accentual-and-syllabic and supra-segmental micro-rhythms’ integration. In compliance with the same principle of relativity, in the system of a higher level, marked by the coordinates in Fig. 1, the rhythm of a spoken text fragment will acquire a macro-rhythm status, while the rhythms of syntactic and phonetic levels of the text that generate it, can be termed as micro-rhythms. The very logic outlined herewith has been used for the formulation of the extended definition of speech tempo-rhythm, given above.

#### 4. Conclusions

The undertaken analysis of the specificities of text rhythmic system functioning, viewed as a psycho-physiological energetic substance, provides us with additional evidence that the generated tempo-rhythm accumulates in itself the direct connection and the character of interaction between the spiritual and material bases of individual's personality, reflecting it in oral speech.

The use of the substantiated in the paper approach will permit, firstly, to make quantitative evaluation of the effects of energetic resonance of micro- and macro-rhythms due to which the text rhythmic system ensures the achievement of a maximum subliminal potential of any of its fragments. Secondly, its application will enable one to experimentally determine the degree of changes of the text rhythmic structure subliminal potential. Thirdly, alongside with syllabic, syntagmatic, intonation and other text characteristics, this approach will expand the description of a macro-rhythm and its micro-rhythms on the basis of defining energetic and subliminal indicators of rhythm actualization in a spoken text.

We consider it quite probable that in the long run the researchers of the subliminal nature of text rhythms and mechanisms of their actualization, empowered by a corresponding interdisciplinary knowledge, will recognize the necessity of modeling a subliminal space of communicative tempo-rhythm (irrespective of whether it is termed as a cosmo-rhythm, mega-rhythm, super-rhythm, global rhythm, etc.) as a kind of a tempo-rhythm sphere, within the scope of which a pulsating interaction of energetic potentials of verbal, visual, tactile, olfactory, taste and similar concepts takes place.

#### References

- Arustamova, A.A. 1998. *Ritm prozy I.S. Turgenyeva* [Rhythm of I. Turgenyev's prose]. PhD diss., A.M. Gorkij Perm' state university. (in Russian)
- Babicheva, A.B. 2003. *Osobennosti ritmicheskoy organizacii spontannoj nemeckoj dialogicheskoy rechi na suprasegmentnom urovne (jeksperimental'no-foneticheskoe issledovanie)* [Specificity of the rhythmic organization of spontaneous dialogic speech in German (experimental phonetic study)]. PhD diss., Moscow state linguistic university. (in Russian)
- Behтерева, N. 2007. *Magija mozga i labirinty zhizni exmepesa* [Magic of the Mind and Life Labyrinths]. Moscow: AST Publ., St-Petersburg: Sova Publ. (in Russian)
- Bogatova, J.A. 2009. Simvol i ego rol' v ritmicheskoy organizacii hudozhestvennogo teksta [Symbol and its role in the rhythmic structure of a literary text]. *Al'manah sovremennoj nauki i obrazovanija* [Almanac of present-day science and education] 2(21), 2: 19-20. (in Russian)
- Bojchuk, E.I. 2014. Ritm hudozhestvennogo teksta kak sredstvo sugestivnogo vozdejstvija [Literary text rhythm as a means of a subliminal influence]. *Jaroslavskij pedagogicheskij vestnik* [Yaroslav pedagogical messenger] 2, I:129-133. (in Russian)
- Boltaeva, S.V. 2003. *Ritmicheskaja organizacija suggestivnogo teksta* [Rhythmic structure of a subliminal text]. PhD diss., A.M. Gorkij Ural state university. (in Russian)
- Boudreault, M. 1968. *Rythme et mélodie de la phrase parlée en France et au Québec*. Paris: Librairie C. Klincksieck.
- Carr, Ph. 2008. *A Glossary of Phonology*. Edinburgh: Edinburgh University Press.
- Goux, J.-P. 2003. "De l'allure" *Semen. Rythme de la prose*, 16. Accessed August 28, 2015. <http://semen.revues.org/2664>.
- Crystal, D. 1976. *Prosodic Systems and Intonation in English*. Cambridge: Cambridge University Press.

- Efremov, V.A. 2012. Associativnye aspekty ritma liricheskoy prozy (na materiale cikla I.A. Bunina «Temnye allei») [Associative aspects of the literary prose rhythm (on the material of I. Bunin's "Dark alleys")]. *Nauchnyy dialog [Scientific dialogue]* 8: 88-105. (in Russian)
- Gachechiladze, G.R. 1970. *Vvedenie v teoriju hudozhestvennogo perevoda [Introduction to the theory of literary translation]*. Tbilisi: Tbilisi National University Publ. (in Russian)
- German, I.A., and V.A. Pishhal'nikova. 1999. *Vvedenie v lingvosinergetiku [Introduction to Lingual synergetics]*. Barnaul: Altay State University Publ. (in Russian)
- Girshman, M.M. 1982. *Ritm hudozhestvennoj prozy [Rhythm of literary prose]*. Moscow: Soviet writer Publ. (in Russian)
- Gradacii temporitmov [Tempo-rhythm Gradations]. Accessed August 22, 2015. <http://psylib.org.ua/books/gippi01/txt10.htm>. (in Russian)
- Gumovskaja, G.N. 2000. Ritm kak faktor vyrazitel'nosti hudozhestvennogo teksta. [Rhythm as a factor of the literary text expressiveness]. Dr. of philology diss., Moscow state university. (in Russian)
- Jazykoznanie. 1998. *Bol'shoj jenciklopedicheskij slovar' [Language. Encyclopedia]*, edited by V.N. Yartseva. Moscow: Russian Encyclopedia Publ. (in Russian)
- Kalyta, A.A. 2001. *Fonetychni zasoby aktualizacii' smyslu anglijs'kogo emocijnogo vyslovlennja [Phonetic means actualizing the sense in English emotional utterances]*. Kyiv: Kyiv State Linguistic University Publ. (in Ukrainian)
- Kalyta, A.A., and L.I. Taranenko. 2012. Sistema celej i sredstv suggestivnogo vozdejstvija v komunikacii [The system of aims and means of a subliminal influence in communication]. *Visnyk Kyi'vs'kogo nacional'nogo lingvistychnogo universytetu. Serija filologija [Kyiv National Linguistic University Messenger]* 15(2): 47-56. (in Russian)
- Kalyta, A. 2015. Phonetic Studies from the Perspective of an Energetics Approach. In A. Bondaruk, and A. Prazmowska (eds.), *Within Language, Beyond Theories* (Volume I): *Studies in Theoretical Linguistics*, 322-336. Newcastle Upon Tyne: Cambridge Scholar Publishing.
- Kiklevich, A.K., and B.A. Potehina. 1998. O suggestivnoj funkcii teksta [On the subliminal text function]. *Faticheskoe pole jazyka (pamjati professora L.N. Murzina) [Language phatic field (in memory of prof. L.N. Mursin)]* 114-127. (in Russian)
- Klimenjuk, A.V. 2007. *Vyklad ta oformlennja rezul'tativ naukovogo doslidzhennja [Presentation and organization of the results of a scientific research]*. Nizhin: TOV "Aspect-Polygraph" Publ. (in Ukrainian)
- Klimenjuk, A.V. 2010. *Znanie, poznanie, kognicija [Knowledge, learning, cognition]*. Ternopil': Pidruchnyky i posibnyky Publ. (in Russian)
- Kochergan, M.P. 1999. *Zagal'ne movoznavstvo [General linguistics]*. Kyiv: Academy Publ. (in Ukrainian)
- Kotljachkov, A., and S. Gorin. 2001. *Oruzhye – slovo. Oborona y napadenye s pomoshh'ju...: Praktycheskoe rukovodstvo [Word as the weapon. Defense and attack with the help of...: Practical guidelines]*. Moscow: "KPS+" Publ. (in Russian)
- Lingvisticheskij jenciklopedicheskij slovar'. 1990. [Linguistic encyclopedia], edited by V.N. Yartseva. Moscow: Soviet Encyclopedia Publ. (in Russian)
- Martin, E.-L. 1924. *Les symétries du français littéraire*. Paris: Didier.
- Meschonnic, H. 1990. *Critique du rythme. Anthropologie historique du langage*. Lagrasse: Editions Verdier.
- Mourot, J. 1960. *Le génie d'un style. Chateaubriand. Rythme et sonorité dans «les Mémoires d'outre-tombe»*. Paris: Librairie Armand Colin.
- Osnovy scenicheskogo dvizhenija. Tempo-ritm fizicheskogo dejstvija [Basics of the scene movements. Tempo-rhythm of a physical action]. Accessed August 25, 2015. <http://dramateshka.ru/index.php/bases-of-the-scenic-motion/3963-osnovih-scenicheskogo-dvizheniya-05tempo-ritm-fizicheskogo-dejstvija>. (in Russian)
- Programmirovanie muzykoj [Programming by music]. Accessed August 25, 2015. <http://www.braincoder.ru/category/%D0%B7%D0%BE%D0%BC%D0%B1%D0%BE%D1%8F%D1%89%D0%B8%D0%BA/>. (in Russian)
- Roach, P. 2009. *English Phonetics and Phonology. A practical course*. Cambridge: Cambridge University Press.
- Rozhnov, V.E., and M.A. Rozhnova. 1987. *Gipnoz ot drevnosti do nashih dnei [Hypnosis from ancient times to present days]*. Moscow: Soviet Russia. (in Russian)

- Sementsov, V.S. 1972. Ritmicheskaja struktura pojeticheskogo teksta na primere analiza Bhagavadgity [Rhythmical structure of a poetic text based on the analysis of Bhagavad-Gita]. PhD diss, Institute of oriental studies of Russian Academy of Science, Moscow. (in Russian)
- Sergeeva, E.S. 2007. Ritm prozy N.V. Gogolja [The rhythm of N. Gogol's prose]. PhD diss., Moscow state linguistic university. (in Russian)
- Stanislavskij, K.S. 1954. *Sobranie sochinenij v vos'mi tomah: T. 1: Moja zhizn' v iskusstve* [Collection of works in eight volumes. Vol. 1: My life in art]. Moscow: Iskusstvo Publ. (in Russian)
- Taylor, D.S. 1981. Non-native speakers and the rhythm of English. *International Review of Applied Linguistics* 19: 219-226.
- Temporitm [Tempo-rhythm]. Accessed August 25, 2015. <http://www.psychologos.ru/articles/view/temporitm>. (in Russian)
- Trask, R.L. 1996. *A Dictionary of Phonetics and Phonology*. New York: Routledge.
- Zhirmunskij, V.M. 1975. *Teorija stiha* [Verse theory]. Leningrad: Soviet writer Publ. (in Russian)

# Exemplification in academic discourse structure

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## Abstract

The study examines the role that exemplification plays in academic discourse. As the latest approaches emphasize, discourse is an interactional activity involving as participants both the writer and the reader. In order to ensure the proper understanding of his/her message, writers make use of different discourse strategies such as reformulation, specification, generalization or elaboration. We focus on how exemplification, viewed as the satellite, contributes to the better recognition of the subject matter, which is understood as the nucleus. In the first two sections of the study, we present an overview of discourse relations which call for the use of constructions applied in exemplification. The second part, which is based on the linguistic material obtained from a close scrutiny of two classic articles from the field of linguistics and one linguistic textbook, is devoted to the description of how exemplification contributes to specification and elaboration. We try to find and describe the specific relations, for example set-member, whole-part, process-step and object-attribute which hold between the nucleus and the satellite. Finally, we attempt at listing discourse areas which call for exemplification. The study illustrates that what are known as separate discourse relations are in fact closely related.

**Keywords:** exemplification, discourse structure, discourse relations, academic discourse

## 1. Introduction

The present study seeks to describe the role that exemplification plays in discourse structure, in particular, in the structure of academic discourse. It aims to pinpoint the place of exemplification in the elaborate network of discourse relations and to examine the close relationship of elaboration and explanation with respect to exemplification.

Exemplification plays a significant role in discourse structure. In the most general sense, it contributes to the creation of a coherent text by providing an easily accessible link between a more abstract, general statement of high complexity and its particular, specific instances. It positively affects coherence through enhancing the audience's identification with the message conveyed, by making discourse easier to follow and more readily acceptable.

Exemplification is a relation central to all kinds of discourse, yet in academic discourse its role is even more prominent owing to a number of characteristic features of this particular type of text. One of the most conspicuous ones is directly related to the purpose of academic

discourse. Even more than anywhere else, the writer's aim is to be not only understood but also accepted. Writers inevitably deal with matters of high complexity, which call for the use of specific terminology, if such terminology is already available. If not, new terminology has to be coined to describe processes or phenomena so far unnamed. Thus, to ensure proper understanding of the discourse, the writer must predict where certain repairing techniques, typically associated with elaboration, will be necessary.

Hyland (2007: 268) refers to conscious attempts of the writer at producing a highly comprehensible and maximally convincing text as "metadiscourse," which he defines as follows: metadiscourse is "self-reflective matter which makes reference to the evolving text or to the writer and the imagined reader of that text." To structure the text properly, the writer has to possess thorough knowledge of a particular discourse community. The differences in the imagined target audiences are clearly visible while comparing scientific articles, targeting fellow scholar audience and pedagogical publications, which are addressed to students with limited knowledge and abilities, as will be illustrated later in the paper. Further, as Hyland claims, message processing is facilitated by code-glosses, i.e. items which supply additional information through paraphrase, explanation or elaboration. Exemplification is closely associated with the latter two.

The present study involves the examination of exemplification as used in three well-known influential publications from the field of linguistics: Ronald W. Langacker's (2006) "Introduction to *Concept, Image, and Symbol*," Tanya Reinhart and Eric Reuland's (1993) "Reflexivity" and Andrew Carnie's (2006) "Syntax: a generative introduction. Second Edition." While the first two publications could be labelled as academic articles, the last one is a textbook with an explicitly acknowledged pedagogical nature. The analysis is carried out within the framework outlined in William C. Mann and Sandra Thompson's (1988) "Rhetorical Structure Theory: Toward a functional theory of text organization," where exemplification is viewed as a technique used to represent different elaboration discourse relations.

The paper is divided into three main sections. The first one defines elaboration and presents the most important elaboration relations. The second section focuses on explanation, another type of relation which calls for the application of exemplification. The core of the paper constitutes the third section, where exemplification relations are defined, ways or exemplification marking are presented and types of exemplification are identified.

## 2. Elaboration relations

Since exemplification plays the most prominent role in those discourse relations which are associated with elaboration (as illustrated by (2) to (6) below, where the satellite utterance is invariably an example), it seems reasonable to spare some time to discuss them in more detail. Elaboration itself has been given various definitions, some of which are quoted below.

Hobbs (1985: 18) defines elaboration as follows: "infer the same proposition P from the assertions of  $S_0$  and  $S_1$ ," where  $S_0$  and  $S_1$  are, in fact, seen to be identical and illustrates it with the following example:



- (1) Go down First Street.  
Just follow First Street three blocks to A Street.

Characteristically, the second assertion is more detailed and provides additional information crucial for the proper understanding of the proposition in question. Here, the relation of identity holds between going down First Street and going three blocks to A Street. The second assertion, however, is more specific as it provides more detailed information concerning the length of the path.

As illustrated above, similar though the two assertions appear to be, there is a major difference between them with respect to their level of generality. This important difference constitutes the core of elaboration, as described by Mann and Thompson (1988: 273):

‘R [a reader] recognizes the situation presented in S [a satellite utterance] as providing additional detail for N [a nucleus]. R identifies the element of the subject matter for which detail is provided.’

The nucleus utterance is one of a higher level of generality. As such it may be perceived by the reader or hearer as communicatively unsuccessful and consequently it calls for the adoption of some kind of repairing measure in the form of a more detailed satellite utterance. This is exactly the role of the second assertion in (1) above. The first utterance outlines the correct path to follow, yet it is imprecise as to how long the path is. This shortcoming is repaired by the second utterance, which makes the distance and the landing point more specific.

Mann and Thompson (1988: 273) acknowledge the fact that elaboration is not associated with one particular type of discourse relations, and consequently list five most important elaboration relations, namely:

- set-member relations, i.e. relations in which the nucleus utterance refers to the whole set denoted by a given general concept and the satellite utterance names a particular, concrete member of this set, as exemplified by (2), where “appositional constructions” form the set, and “my good friend Ollie North” is one of its members.
- (2) Appositional constructions involving two nominal predications, e.g. my good friend Ollie North, are straightforwardly accommodated in this framework by means of a correspondence established between the nominal profiles. (Langacker p. 56)
- whole-part relations, where the nucleus utterance refers to the whole denoted by a given general concept and the satellite names its more specific parts, as in (3), in which conceptualization represents the whole and particular concepts are its parts.
- (3) The term conceptualization is interpreted quite broadly: it encompasses novel conceptions as well as fixed concepts; sensory, kinesthetic, and emotive experience; recognition of the immediate context (social, physical, and linguistic); and so on. (Langacker p. 30)
- process-step relations, which are a characteristic feature of pedagogical discourse, where the operation of a general process is divided into several steps. In (4) below, the process of drawing tree diagrams is broken into a sequence of consecutive steps.

- (4) This method for tree drawing often works best for beginners. Here are some (hopefully helpful) steps to go through when drawing trees, below illustrated in [3]:

[3] 1. Write out the sentence and identify the parts of speech:

D Adv Adj N V D N

The very small boy kissed the platypus.

2. Identify what modifies what. Remember the modification relations. If the word modifies something then it is contained in the same constituent as that thing.

Very modifies small. Very small modifies boy.

The modifies boy. The modifies platypus.

The platypus modifies kissed.... (Carnie p. 79)

- object-attribute relations, in which the nucleus utterance refers to a specific object, while the satellite utterance focuses on one of the attributes of this object. In (5) the object referred to is the “referentially independent (+R) head of the chain,” while the satellite describes its property (attribute), i.e. the c-commanding function.
- (5) Given [80], the referentially independent (+ R) element of the chain must be its head; that is, it must c-command the referentially dependent (- R) element. (Reinhart and Reuland p. 713)
- generalization-specification relations, which in my material constitute by far the most numerous type of elaboration relations. Here a general concept, which is often open to different interpretations is made more specific and more precise by the satellite utterance, as “imagery” in (6):
- (6) Equally significant for semantic structure is the “conventional imagery” inherent in the meaning of an expression. By imagery, I do not mean sensory images à la Shepard (1978) or Kosslyn (1980), though sensory images – as one type of conceptualization – are quite important for semantic analysis. I refer instead to our manifest capacity to structure or construe the content of a domain in alternate ways. (Langacker p. 33)

The abovementioned five elaboration relations may be expressed through a few elaboration types, among which the following four constitute the most numerous group: reformulation, as in (7), where “basic domains” are rendered as “cognitively irreducible representational spaces or fields of conceptual potential,” specification, as in (8), where abstract X and Y heads are replaced with specific head types, i.e. Adv and Adj, generalization in (9), where the more specific suffix -s is used to illustrate a more general statement concerning the homophonous nature of English inflectional morphemes and summary (the concluding statement) in (10) below:

- (7) It is however necessary to posit a number of “basic domains”, i.e. cognitively irreducible representational spaces or fields of conceptual potential. (Langacker p. 32)
- (8) If one phrase, XP (AdvP) modifies some head Y (Adj), then the XP must be a sister to Y (i.e., the AdvP must be a sister to the head Adj), meaning they must share a mother. You’ll notice that this relationship is asymmetric: AdvP modifies Adj, but Adj does not modify AdvP. (Carnie p. 69)
- (9) In many cases, the same affix can be used in very different ways. For example, the inflectional suffix -s is found both as a marker of present tense in the third person, he walks and as the plural marker, peanuts. In

fact, leaving aside the difference in punctuation (the apostrophe), it is also used to mark possessors: John's backpack; its cover. A similar effect is seen with many other suffixes. For example -er is used both derivationally to form nouns: dancer, and as a comparative inflectional marker on adjectives: bigger. Because so many suffixes in English are homophonous (sound the same, but have different usages), be very careful when using them for morphological distribution tests. (Carnie p. 39)

- (10) It is claimed instead that semantic structures (which I call "predications") are characterized relative to "cognitive domains", where a domain can be any sort of conceptualization: a perceptual experience, a concept, a conceptual complex, an elaborate knowledge system, etc. [...]Consider some examples. [...]Pushing things to their logical conclusion, we must recognize that linguistic semantics is not an autonomous enterprise, and that a complete analysis of meaning is tantamount to a complete account of developmental cognition. (Langacker p. 32)

For Corston Oliver (1998: 81) the most important aspect of elaboration relations is subject continuity described as: "the most important kind of referential continuity for identifying discourse relations." Among others, this continuity can be signaled through the application of various types of coreferential elements. In (1), for example, such is the role of the repetition of "First Street". In this way, elaboration is to be seen as closely related to various types of anaphoric relations (cf. also Bärenfänger *et al.* 2008).

### 3. Explanation

Apart from elaboration, which very often calls for the application of exemplification to express various discourse relations related with it, exemplification in academic discourse is closely tied with explanation, albeit in a different manner. Jasinskaja and Karagjosova (2011) define explanation as a set of relations where the second utterance gives support to the first one by providing evidence, justification, motivation or causal explanation. Unlike elaboration, where the second utterance clarifies the meaning of the first one, explanation does not seek to support the nucleus utterance with a satellite one which asserts basically the same proposition, expressing it in a way that is easier for the intended or actual reader to identify and accept. Here, the second utterance supports the truth value of the first one. Consider, for example, utterances such as those in (11)-(13):

- (11) Another change we must assume in the standard chain theory is prohibiting (80) from applying to single-member chains. This change is needed in order to allow for the logophoric use of anaphors. (Reinhart and Reuland p. 702)
- (12) The second is the domain allowing SE anaphors to be bound (though not excluding pronouns). Despite the apparently massive differences reported among languages, we argue there that this too is reducible to a unique domain. In traditional terms, this binding obeys the Tensed-S Constraint; that is, it is impossible across tense. We show that this follows from the fact that SE anaphors must move to I to acquire  $\phi$ -features. (Reinhart and Reuland p. 660)
- (13) The precise configuration of such a network is less important than recognizing the inadequacy of any reductionist description of lexical meaning. A speaker's knowledge of the conventional value of a lexical item cannot in general be reduced to a single structure, such as the prototype or the highest-level schema. For one thing, not every lexical category has a single, clearly determined prototype, nor can we invariably

assume a high level schema fully compatible with the specifications of every node in the network (none is shown in Figure 1). (Langacker p. 31)

where function of the utterance following the initially made statement clearly is to justify the claim made. The claim itself is not seen as obscure or difficult to comprehend; the reader will not fail to understand it, yet they may be uncertain why it needs to be made. In (11) the second sentence provides justification for the restriction on the application of a specific rule. The last sentence in (12) represents causal explanation. The requirement for SE anaphors to obtain  $\phi$ -features is the cause for the Tensed-S Constraint. In (13) the main explanation relation is that of motivation. Langacker makes here a potentially controversial statement going against one of the “popular” theories. This claim is felt to require proper motivation.

Although elaboration and explanation are principally different phenomena, they are often discussed together, on the grounds that they play a very similar role in discourse structure. This is due to the fact that both in explanation and elaboration the first utterance fails to achieve the intended communicative goal and the second one has a repairing role. Both anticipate a misunderstanding or/and communication failure, which as Lascarides and Asher (2009) state most often results from problems with reference resolution (i.e. What does this refer to?) and lexical access (What does this mean?). Because of its repairing role exemplification is often associated with elaboration and explanation.

#### 4. Exemplification

Hobbs (1985:20) gives the following definition of exemplification: “Infer  $p(A)$  from assertion  $S_0$  and  $p(a)$  from the assertion of  $S_1$  where  $a$  is a member of subset of  $A$ .” and supports it with the following example:

- (14) This algorithm reverses a list.  
If its input is “A B C”, its output is “C B A”.

In (14) the statement made by the first utterance is supported by the second one, giving a reversed list. Hyland (2007: 270) expresses the role that exemplification plays in discourse structure in a more straightforward manner, as “a communication process through which meaning is clarified or supported by a second unit which illustrates the first by citing an example.” The characteristic feature of exemplification is that it is not necessarily associated with two formally separate utterances, as apart from functioning on a clausal level, it is typically associated with phrasal or even lexical levels.

##### 4.1. Exemplification marking

In their article, Jasinskaja and Karagjosova (2011) make a strong claim, supporting it with the data from the corpus study of Taboada (2006), that elaborations are often unmarked. On the other hand, exemplifications are typically (lexically) marked off. Hyland (2007: 278) lists the following most frequently used lexical markers of exemplification: *such as*, *for example*, *e.g.*, *an example of*, *like*, *for instance* and *say*. This does not mean that there are no lexically

unmarked exemplifications found, as examples (15) and possibly (8), requoted here as (16) show:

- (15) A predication's scope is not always sharply delimited or explicitly indicated, but the construct is nonetheless of considerable structural significance [...]. Consider the notion island with respect to the various scopes indicated in Figure 5. (Langacker p. 36)
- (16) If one phrase, XP (AdvP) modifies some head Y (Adj), then the XP must be a sister to Y (i.e., the AdvP must be a sister to the head Adj), meaning they must share a mother. You'll notice that this relationship is asymmetric: AdvP modifies Adj, but Adj does not modify AdvP. (Carnie p. 69)

However, the unmarked character of the above exemplifications is far from being unquestionable. For example, Hyland (2007) does not consider exemplifications such as those in (16) unmarked. Among possible exemplification marking devices he lists punctuation, and he finds bracketing among the most frequent types of marking used. Consequently, the bracketed expressions will be infallibly identified as examples. It is also worth noting that in (15) the second utterance names the example but it doesn't state it. Therefore, we might dare to claim that the whole clause itself serves as exemplification marking here. Similar cases of finite and nonfinite clauses marking off exemplification are given in (17) and (18):

- (17) Most predications also require more than one domain for their full description, in which case I refer to the set as a "complex matrix", as illustrated for knife in Figure 2. (Langacker p. 32)
- (18) The base of a predication is its domain (or each domain in a complex matrix). Its profile is a substructure elevated to a special level of prominence within the base, namely that substructure which the expression "designates". Some examples are sketched in Figure 3, with the profile given in heavy lines. (Langacker p. 34)

In (17) exemplification is marked by the nonfinite clause "as illustrated" and in (18) a similar role is played by the finite clause "some examples are sketched in Figure 3."

By the same token, exemplification may be marked by prepositional phrases similar to "as in (1)" in (19):

- (19) In accordance with Postal (1970), Vergnaud (1987), and others, we will assume that pronouns are in determiner position. Yet they project as full NPs, as in (1). (Reinhart and Reuland p. 658)

When exemplification is lexically marked, it is usually by employing a linking adverbial or an abbreviation corresponding to it. Typical adverbials used in exemplifications include: *for example*, *for instance*, *like*, *such as*, etc. Some examples are given in (20)-(23) below:

- (20) Grammatical constructions have the effect of imposing a particular profile on their composite semantic value. When a head combines with a modifier, **for example**, it is the profile of the head that prevails at the composite structure level. (Langacker p. 41)
- (21) The nodes and categorizing relationships in such a network differ in their degree of entrenchment and cognitive salience – **for instance**, the heavy-line box in Figure 1 corresponds to the category prototype. (Langacker p. 31)

- (22) Similarly we can distinguish among the various kinds of determiner using features **like** [ $\pm$ wh], [ $\pm$ quantifier], [ $\pm$ deictic], etc. (Carnie p. 46)
- (23) First observe that in verbs that allow both an NP and a CP ( $V_{[NP\_ \{NP/CP\}]}$  **such as** ask), [...] (Carnie p. 75)

The use of abbreviations in exemplification marking is given in (24):

- (24) Appositional constructions involving two nominal predications, **e.g.** my good friend Ollie North, are straightforwardly accommodated in this framework by means of a correspondence established between the nominal profiles. (Langacker p. 56)

#### 4.2. *The relationship between generalization and exemplification*

The characteristic feature of many of the above examples is that they are merely introductions to exemplifications proper or comments on the previously given examples:

- (25) Dutch SELF anaphors are allowed in essentially the same environments, as illustrated with the translations of [22a-b] in [22c-d].
- [22] a. There were five tourists in the room apart from myself.  
 b. \*Five tourists talked to myself in the room.  
 c. Er waren vijf toeristen in de kamer behalve mezelf.  
 d. \*Vijf toeristen praatten met mezelf in de kamer.
- [23] a. Physicists like yourself are a godsend. (Ross 1970)  
 b. \*A famous physicist has just looked for yourself.
- [24] a. 'She gave both Brenda and myself a dirty look.'  
 b. \*She gave myself a dirty look.

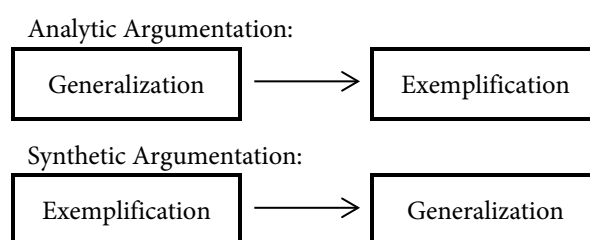
[...] Normally, first person reflexives behave strictly like anaphors. For example, in the (b) cases of [22]-[24] they are ruled out, correctly, by Condition A. Why, then, does Condition A fail precisely in the (a) cases? Furthermore, the problem is not restricted to first person reflexives. As was noted by the same scholars in the seventies, third person reflexives can be long-distance bound in English, in violation of Condition A. This use (known as logophoric), which is assumed to interact with point of view, is most common in narrative texts [...] (Reinhart and Reuland p. 669)

The above quote from Reinhart and Reuland is in large part a list of examples of reflexives used correctly or incorrectly in English and Dutch. These examples on the one hand do exemplify the initial claim concerning the similarity between English and Dutch self-pronouns. On the other hand, however, they serve as an introduction to the generalizations made below them. Only there does the reader learn that the examples given in (a) and (b) exemplify two distant applications of reflexives, where the logophoric one is a new generalization not mentioned anywhere earlier in the discourse.

This observation naturally triggers the question concerning the relationship between the generalization and the example that exemplifies it. In most of the literature dealing with exemplification the implied assumption is that the example should linearly follow the generalization. Such a placement quite logically follows from the fact that exemplification is a relation frequently associated with elaboration and explanation, which are defined through their repairing function in discourse which is likely to be a communicative failure. Even Hyland (2007), who focuses on the role of exemplification in academic discourse, quotes only

such cases where the exemplification follows the general statement. Yet, our material shows that the reverse ordering is not infrequent.

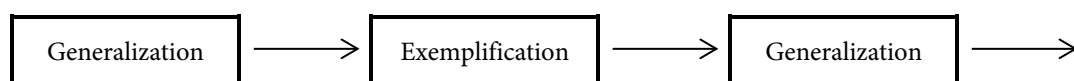
For the sake of simplicity, let us limit our investigation to those exemplifications which are associated with elaboration and explanation. The problem with the classical definitions of elaboration and explanation quoted in the initial sections of the present paper is that they wrongly presuppose that the nucleus utterance must precede the satellite one. This presupposition is clearly visible in Mann and Thompson's (1988: 273) list of elaboration relations, i.e. whole-part, set-member, process-step etc. In real academic discourse, however, argumentation is built in two directions, which we will refer to, adopting terminology used in chemistry, as analytic and synthetic. In analytic argumentation the nucleus utterance precedes the satellite one. It is most typically seen as a statement of some objective or at least widely acknowledged fact often already known or described, while in synthetic argumentation the writer starts with empirical data, whose interpretation leads to the development or presentation of a relevant generalization.



**Figure 1:** *Analytic and Synthetic Argumentation*

In (25) above, the parallel between English and Dutch reflexives is presented as a fact which is evidenced by the examples that follow. Yet, at the same a careful reader will notice that there is something bothering about examples (a) and (c); namely, they are grammatical while the theory developed so far would predict them unacceptable. This calls for synthetic argumentation, i.e. relating the “strange” cases to the general notion of logophoricity.

The choice of argumentation type in (25) is dictated by stylistic, text internal properties. In other words, the set of presented examples exemplifies two distinct generalizations. Giving them both before the examples would most likely result in the lack of communication transparency, with the reader confused as to what aspects of the examples to focus on. Separating the two generalizations seems communicatively more effective. We call such a procedure generalization – exemplification chain, which can be schematically represented as follows:



**Figure 2:** *Generalization – elaboration chain*

in other cases, the choice between analytic and synthetic argumentation is a matter of subjective preference. Synthetic argumentation is very often used in pedagogical discourse, as illustrated by (26) below, where the example of “bigger units” precedes the generalization concerning the nature of a constituent:

(26) We have two different ways to represent this bigger unit. One of them is to put square brackets around units:

3) [the student]

The other is to represent the units with a group of lines called a tree structure:

4)

```

      /  \
     /    \
    the  student
  
```

These bigger units are called constituents. An informal definition for a constituent is given in (5):

5) Constituent: A group of words that functions together as a unit.

In such types of discourse starting with a detail may be more communicatively effective than choosing an abstract generalization as a starting point.

### 4.3. Exemplification types

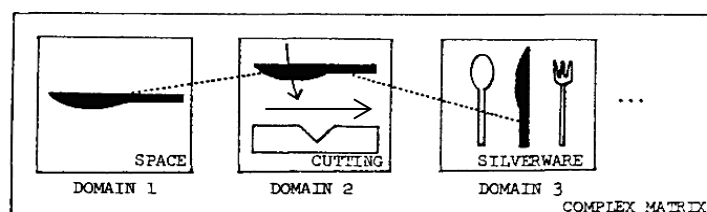
Exemplifications primarily have an illustrating function, making a general statement more understandable by referring to concrete, specific instances of this generalization. They explain or elaborate on the previous (or the following) predication by giving an example. Yet, there is an obvious difference between exemplifications used in elaboration and those in explanation. Secondly, while explanation exemplifications in the material analysed in this study are limited to those giving evidence, in elaboration exemplification is used in a variety of relations. Most typically we deal with two types of relations: generalization-specification and set-member. Additionally in academic texts, illustrating examples are used for process-step specification. The application of exemplifications may be viewed as governed by the following set of rules, presented below:

#### Generalization-Specification Rule for Exemplifications:

Make a general statement A more specific by picking one member out of the set of specific cases  $\{a_1 \dots a_n\}$  which the generalization extends over.

The Generalization-Specification rule can be illustrated with the following examples:

(27) Most predications also require more than one domain for their full description, in which case I refer to the set as a “complex matrix”, as illustrated for knife in Figure 2.



(Langacker p.32)

(28) Next, we'll do a derivation of a sentence where the wh-phrase moves from an embedded clause to the specifier of a main clause CP.

[26] Who(m) do you think Jim kissed? (Carnie p. 325)

(29) With respect to the former, a unit is minimal (a “morpheme”) if it contains no other symbolic units as components. For instance, despite its internal complexity at both the semantic and the phonological poles,



the morpheme sharp is minimal from the symbolic standpoint, whereas sharpen, sharpener, and pencil sharpener are progressively more complex. (Langacker p. 45)

In (27), the general term “complex matrix” has been illustrated with an example of such a matrix that can be drawn for a specific lexical entry, i.e. “knife”. What is worth noting is that exemplification is not necessarily limited to linguistic representations. Here the example proper is a schematic figure. It is a fact that academic discourse is highly dependent on non-linguistic devices, such as figures, graphs, charts, drawings etc., many of which serve the exemplification function. This naturally opens a discussion which is beyond the scope of the present paper as to the relationship between the linguistic and non-linguistic elements in discourse.

In (28) the derivation of a sentence with a wh-movement to the specifier position of the matrix CP is presented using the example of a clause in which such a movement takes place. In (29) the concept of a minimal unit is exemplified with the morpheme “sharp” and its more composite, complex forms “sharpen” and “sharpener”.

Set-member exemplifications are subject to the following rule:

Set-Member Rule for Exemplifications:

Make the set generally defined by utterance A more accessible by picking out one of its members  $\{p_1 \dots p_n\}$ .

The operation of this rule is visible in (30), (31) and (32).

- (30) In spoken varieties of English (both standard and non-standard), function words often contract with nearby words. One such contraction takes non-finite T (to) and contracts it with a preceding verb like *want*:
- i) I want to leave → I wanna leave. (Carnie p. 322)
- (31) Consider the argument based on verb/noun pairs which refer to the same process, e.g. extract and extraction. (Langacker p. 49)
- (32) Appositional constructions involving two nominal predications, e.g. my good friend Ollie North, are straightforwardly accommodated in this framework by means of a correspondence established between the nominal profiles. (Langacker p. 56)

In example (30), the set described is one composed of function words combining with nearby words to form a contraction. Out of this set, as an example, a specific subset is extracted, i.e. the set formed by a lexical verb followed by the infinitive marker ‘to’. Subsequently, from the extracted subset a particular member is chosen as a representative, in our case, the verb ‘want.’ Thus, it may be observed that the Set-Member Rule can operate in two stages. It is the case when the set in question is not a homogenous one. In English, typical contractions involve also the negative marker ‘not’ contracting with the preceding auxiliary, and auxiliaries contracting with a preceding NP. Consequently, it seems desirable that the reader be informed that the example represents only a particular type of the construction rather than the set as a whole. In (31) and (32), the Rule operates in one stage only, as the sets formed by derivationally related pairs of verbs and nouns and appositional nominal constructions are believed to be homogenous ones.

The last group, namely process-step exemplifications are in our material found chiefly in pedagogical academic discourse, probably because certain procedures are anticipated by the writer to be potentially unclear and difficult to understand by the inexperienced student reader. What seems interesting to note is that the examples themselves do not form the process-step relation. Instead, they perform an illustrating function to each step of the process, as in (33) and (34):

(33) This method for tree drawing often works best for beginners. Here are some (hopefully helpful) steps to go through when drawing trees.

1. Write out the sentence and identify the parts of speech:

D Adv Adj N V D N

The very small boy kissed the platypus.

2. Identify what modifies what. Remember the modification relations. If the word modifies something then it is contained in the same constituent as that thing.

*Very* modifies *small*.

*Very small* modifies *boy*.

*The* modifies *boy*.

*The* modifies *platypus*.

*The platypus* modifies *kissed*.

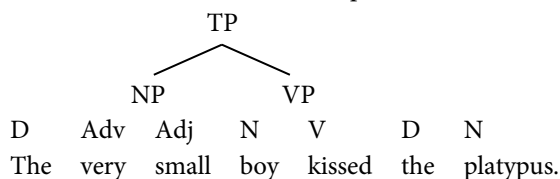
[...] (Carnie p. 79)

(34) 1. This method starts out the same way as the other: write out the sentence and identify the parts of speech.

D Adv Adj N V D N

The very small boy kissed the platypus.

2. Next draw the TP node at the top of the tree, with the subject NP and VP underneath:



3. Using the NP rule, flesh out the subject NP. You will have to look ahead here. If there is a P, you will probably need a PP. Similarly, if there is an Adj, you'll need at least one AdjP, maybe more. Remember the principle of modification: elements that modify one another are part of the same constituent.

[...] (Carnie p. 82)

Consequently, the rule governing the application of exemplification in process-step relations may be worded as follows:

Process – Step Rule for Exemplifications:

Use exemplification to illustrate each step of the process if in the process-step relation the utterance referring to the process is not made accessible enough through listing its consecutive steps.

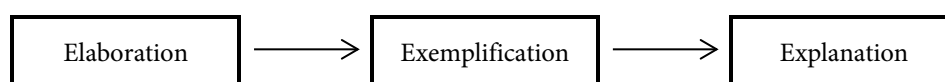
Whole-part relations do not represent typical exemplifications. In (2), requoted here as (35) we deal, in fact, with listing rather than exemplification, although 'and so on' at the end of the list may apparently suggest that the enumerated conceptions are examples with a typical illustrating function. At the same time, it must be remembered that it is often impossible to present an exhaustive list of the component parts, both because it might be infinitely long and simply because it is not really necessary or desirable to name all the parts. I am in favour of keeping listings and exemplifications apart.

- (35) The term conceptualization is interpreted quite broadly: it encompasses novel conceptions as well as fixed concepts; sensory, kinesthetic, and emotive experience; recognition of the immediate context (social, physical, and linguistic); and so on. (Langacker p. 30)

In my indeed very limited material, exemplification is predominantly related to elaboration. However, in academic discourse we also find extended chains where a certain general utterance is illustrated with an example, which in turn calls for additional explanation.

- (36) [12]  
 Condition B  
 A reflexive predicate is reflexive-marked.  
 Let us now look at how this condition works in the examples we have been discussing. In the case of [6a] (repeated in [13]), [12] is equivalent to the standard Condition B: in both [13a] and [13b] binding yields a reflexive predicate, so Condition B requires reflexive marking. Whereas [13b] is appropriately marked, the unmarked [13a] is filtered out. We may note that Condition B also captures cases left for Condition C in the standard binding theory. For [12], there is no difference between [13a] and [13c], and binding is ruled out in both, for the same reason.  
 [13]  
 a. \*Max<sub>i</sub> criticized him<sub>i</sub>.  
 b. Max<sub>i</sub> criticized himself<sub>i</sub>.  
 c. \*Max<sub>i</sub>/he<sub>i</sub> criticized Max<sub>i</sub> (Reinhart and Reuland p. 663)

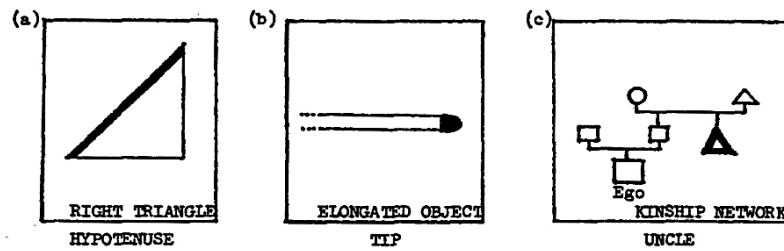
In (36) the examples in [13] are meant to illustrate the operation of Condition B, as presented in [12]. Yet, the examples themselves are not seen as accessible enough and writers predict a possible communication failure. Consequently, they reach for another repairing method, namely explanation. Using exemplification as a form of elaboration and then explanation to make the examples more informative constitutes another characteristic feature of academic discourse, where elaboration – exemplification-explanation chains are the order of the day. Such chains are presented schematically in Figure 3 below:



**Figure 3:** *Elaboration – exemplification – explanation chain*

Another illustration of the above chain, this time with a schematic, partly non-linguistic exemplification followed by explanation is given in (37):

- (37) The base of a predication is its domain (or each domain in a complex matrix). Its profile is a substructure elevated to a special level of prominence within the base, namely that substructure which the expression “designates”. Some examples are sketched in Figure 3, with the profile given in heavy lines. The base (or domain) for the characterization of hypotenuse is the conception of a right triangle; for tip, the base is the conception of an elongated object; and for uncle, a set of individuals linked by kinship relations. The base is obviously essential to the semantic value of each predication, but it does not per se constitute that value: a hypotenuse is not a right triangle, a tip is not an elongated object, and an uncle is not a kinship network.

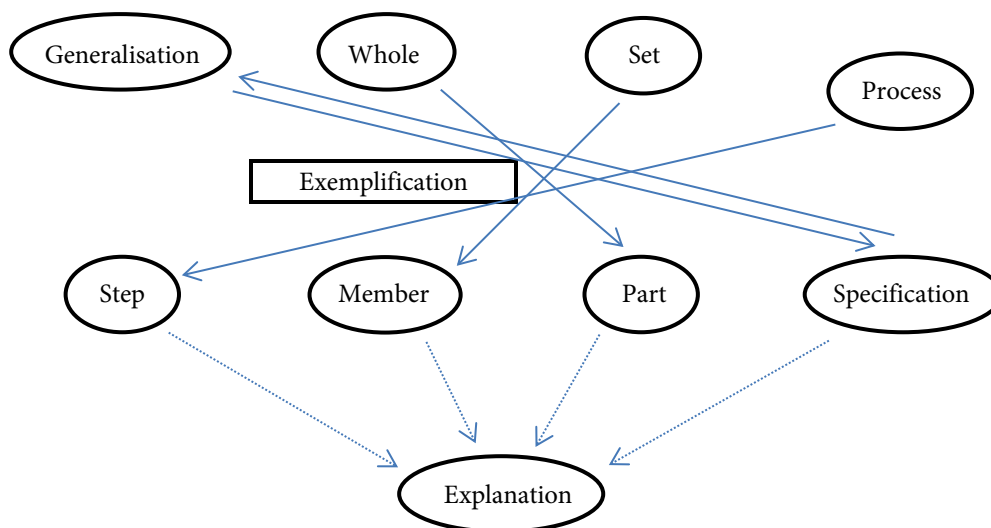


(Langacker p.34)

## 5. Conclusions

Exemplification, as a tool used in elaboration, is a conscious measure taken by the writer to avoid communicative failure. It makes it possible to make a general concept more accessible by referring to a specific case, or by pointing to specific members of a particular set. Exemplification may also play a supplementary role in process-step relations, where particular steps are illustrated with specific examples. However, exemplification itself may sometimes fall short of the target. In such a case explanations are necessary.

Exemplification is sometimes involved in relations that go beyond the standard two-element relations. The two most characteristic chains exemplification is part of are generalization-exemplification-generalization and elaboration-exemplification-explanation chains. The network of exemplification relations is presented schematically in Figure 4 below:



**Figure 4:** Exemplification relations

In Figure 4, the arrows show the direction in which the text develops, that is, for example, from a statement describing the whole set to the statement referring to its particular member or members. The arrows show the typical direction in which the argumentation develops, i.e. from the process to step rather than the other way round. With generalization-specification relation, where argumentation can develop in both directions, two arrows are used. All the lines pass through the exemplification box. Exemplification should be interpreted as a means of achieving the target. Thus, e.g. in the process – step relation, the consecutive steps or the

process are illustrated with specific examples. Finally, the dotted lines that join the relations with explanation represent the possibility of building chains of relations.

### Primary Sources:

- Langacker, R.W. 2006. Introduction to *Concept, Image, and Symbol*. In D. Geeraerts (ed.), *Cognitive Linguistics: Basic Readings*, 29-68. Berlin: Mouton de Gruyter.
- Reinhart, T., and E. Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24: 657-720.
- Carnie, A. 2006. *Syntax: a generative introduction. Second Edition*. Malden: Blackwell Publishing.

### References

- Asher, N., and L. Vieu. 2005. Subordinating and coordinating discourse relations. *Lingua* 115: 591-610.
- Bärenfänger, M., D. Goecke, M. Hilbert, H. Lungen, and M. Stührenberg. 2008. Anaphora as an indicator of elaboration: A corpus study. *JLCL* 23/2: 49-73.
- Corston-Oliver, S.H. 1998. *Computing of Representations of the Structure of Written Discourse*. PhD thesis, University of California, Santa Barbara.
- Cote, S. 1997. Elaboration: A function and a form. *Proceedings of the 23rd Annual Meeting of the Berkeley Linguistic Society*.
- Danlos, Laurence. 2001. Event coreference in causal discourses. In P. Bouillon, and F. Busa (eds.), *The Language of Word Meaning*, 216-241. Cambridge: Cambridge University Press.
- Halliday, M.A.K., and R. Hasan. 1976. *Cohesion in English*. London: Longman.
- Hobbs, J.R. 1985. *On the coherence and structure of discourse*. CSLI.
- Hyland, K. 2007. Applying a gloss: exemplification and reformulation in academic discourse. *Applied Linguistics* 28(2): 266-285.
- Jasinskaja, K., and E. Karagjosova. 2011. Elaboration and Explanation. In *Proceedings of Constraints in Discourse IV, September 14th-16th, 2011, Agay-Roches Rouges, Var, France*.
- Knott, A., J. Oberlander, M. O'Donnell, and C. Melish. Beyond elaboration: the interaction of relations and focus in coherent text. In T. Sanders, J. Schilperoord, and W. Spooren (eds.), *Text Representation: Linguistic and Psycholinguistic Aspects*, 181-196. Amsterdam/Philadelphia: Benjamins.
- Lascarides, A., and N. Asher. 2009. Agreement, disputes and commitments in dialogue. *Journal of Semantics* 26(2): 109-158.
- Mann, W.C., and S. Thompson. 1987. Rhetorical Structure Theory: Description and Construction of text Structures. In G. Kempen (ed.), *Natural Language Generation: New Results in Artificial Intelligence, Psychology and Linguistics*, 85-95. Boston: Martinus Nijhoff Publishers.
- Mann, W.C., and S. Thompson. 1988. Rhetorical Structure Theory: Toward a functional theory of text organization. *Text* 8(3): 243-281.
- Polanyi, L. 1988. A formal model of the structure of discourse. *Journal of Pragmatics* 12: 601-638.
- Taboada, M. 2006. Discourse markers as signals (or not) of rhetorical relations. *Journal of Pragmatics* 38: 567-592.
- Taboada, M., and W.C. Mann. 2006. Rhetorical Structure Theory: looking back and moving ahead. *Discourse Studies* 8(3): 423-459.
- Webber, B., M. Egg, and V. Kordoni. 2012. Discourse structure and language technology. *Natural Language Engineering* 18: 437-490.

# English-Polish contrastive grammar at Polish universities

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## Abstract

Although contrastive studies do not enjoy great prestige among linguists, they have a very long tradition dating back to ca. 1000 A.D. when Ælfric wrote his *Grammatica*, a grammar of Latin and English. Even then he must have been aware of the fact that the knowledge of one language may be helpful in the process of learning another language (Krzyszowski 1990). Similarly, it seems that throughout the history of mankind teachers of a foreign language must have realized that a native and foreign tongue can be contrasted. However, contrastive linguistics only came into being as a science at the turn of the 19<sup>th</sup> and 20<sup>th</sup> centuries. The first works were almost purely theoretical, and it is worth emphasizing that among the first scholars working in the field was Baudouin de Courtenay, a Polish linguist, who published his contrastive grammar of Polish, Russian and Old Church Slavonic in 1912. The outbreak of the Second World War was a milestone in the development of applied contrastive studies since a need to teach foreign languages in the United States arose as a result. The 1960's is considered a further step in the development of contrastive grammar since a number of projects were initiated both in Europe and in the U.S.A. (Willim, Mańczak-Wohlfeld 1997), which resulted in the introduction of courses in English-Polish contrastive grammar at Polish universities. The aim of the present paper is to characterize and evaluate the courses offered in the English departments of selected Polish universities and to suggest an "ideal" syllabus.

**Keywords:** contrastive studies, teaching contrastive grammar, course descriptions

## 1. Introductory remarks

I would like to start the present paper with a statement put forward by the late Professor Walerian Świczkowski from the Maria Curie-Skłodowska University in Lublin. The statement was expressed at a Ph.D. seminar held at Warsaw University in the mid-1970s, when I was a student there. According to the Professor's firm belief Polish linguists specializing in English should concentrate on English-Polish contrastive grammar since they are the only linguists who are able to contribute to this particular field of studies. At the time this type of research was particularly popular among Polish anglicists, a fact which does not mean that there is no interest in the field today and it goes without saying that the research should be reflected in the process of teaching. Having said that, although contrastive studies

do not enjoy great prestige among present day linguists, they have a very long tradition that dates back to ca. 1000 A.D. when Ælfric wrote his *Grammatica*, a grammar of Latin and English. Even then, he must have been aware of the fact that the knowledge of one language may be helpful in the process of learning another (Krzyszowski 1990). Similarly, it seems that throughout the history of mankind teachers of a foreign language must have realized that a native and foreign tongue can be contrasted. However, contrastive studies of a sort (without the term being used) have been carried out since the 15<sup>th</sup> century and the first “theories” were formulated at the beginning of the 17<sup>th</sup> century. It was then that John Hewes stated that a knowledge of one’s first language may not only facilitate the learning of a foreign tongue but can equally well hinder it due to, what was called much later, negative transfer (Krzyszowski 2011). However, contrastive linguistics only came into being as a science at the turn of the 19<sup>th</sup> and 20<sup>th</sup> centuries. Unlike the above mentioned achievements the first works were almost purely theoretical although it is worth emphasizing that among the first scholars working in the field was Baudouin de Courtenay, a Polish linguist, who published his contrastive grammar of Polish, Russian and Old Church Slavonic in 1912. The Prague school of linguistics followed his lead, particularly such academics as V. Mathesius, B. Trnka, and J. Vachek. The outbreak of the Second World War was a milestone in the development of applied contrastive studies since a need to teach foreign languages in the United States arose as a result. The 1960’s is considered a further step in the development of contrastive grammar since a number of projects were initiated both in Europe and in the U.S.A. (Willim, Mańczak-Wohlfeld 1997), which resulted in the introduction of courses in English-Polish contrastive grammar at Polish universities. Thus, the aim of the present paper is to characterize and evaluate the courses offered at the English departments of selected Polish universities and to suggest an “ideal” syllabus.

The study has been restricted to Polish universities, which means that vocational schools have not been included. This is due to the space and time limitation. Today, there are altogether nineteen universities in Poland, although in some either the course is not offered or it is impossible to obtain any information concerning it on the Internet or even via personal communication. However, most of the material relating to teaching English-Polish contrastive grammar is taken from web pages (a list is provided in the References) or personal contacts, for which I would like to express my sincere gratitude.

## **2. The National Qualifications Framework and learning outcomes**

In the following discussion I do not consider the National Qualifications Framework and learning outcomes since on the one hand, they represent, what I call educational “Newspeak”, and on the other, if they are available at all, it seems they have a lot in common with each other. However, it is worth quoting an example taken from the University of Wrocław (Department of English Studies):

**Learning outcomes****KNOWLEDGE**

01. The student is knowledgeable about the objectives and methods used in comparative linguistics research. The student understands the workings of language as a grammatical system that consists of phonological, morphosyntactic and semantic modules.
02. The student is aware of morphological and syntactic processes occurring in Polish and in English (e.g. word derivation, compounding), and can explain the specific mechanisms that are at work in both languages.
03. The student knows the theory of principles and parameters that is applied to explain differences in grammatical systems across languages; s/he is able to provide examples of language universals and explain the ways parameters are set and reflect cross-linguistic variation.
04. The student is aware of grammatical phenomena in English and Polish which due to their cross-linguistic divergence are particularly problematic in the process of English-Polish translation, learning, and teaching.
05. The student knows the basic terminology used in linguistics.
06. The student has an extensive knowledge of phonological, lexical, and morphosyntactic properties of the English language as well as their historical development. The student is able to make informed statements about linguistic structures that are found in Polish and English and is able to provide equivalents of these structures in both languages.

**SKILLS**

01. The student is able to use the knowledge of English and Polish grammar in the process of learning, teaching and translation.
02. The student can analyze grammatical phenomena that are expressed differently in Polish and English (e.g. tense and aspect) or that do not exist in one of the languages (e.g. definiteness in Polish) and is able to take informed choices while translating texts that involve these grammatical phenomena.
03. The student is able to analyze new language borrowings (anglicisms) and evaluate their adaptation in the Polish language.

**SOCIAL COMPETENCE**

01. The student understands the need for lifelong learning, especially in relation to the development of language skills.
02. The student is able to work in a team, adopt different roles in a group, and share his/her knowledge and skills with others.
03. The student knows how to set priorities, is able to manage time and accomplish specific tasks within given deadlines.

Since no assessment criteria are provided, as an illustration I will use those from my own university:



**KNOWLEDGE**

Knowledge of the topics in comparative linguistics, English grammar and English-Polish contrastive grammar covered in the course – NFEEn1A\_WO2 i NFEEn1A\_WO3 – is evaluated on the basis of the assessment of a student's preparation for class and their active participation in class discussions to check the understanding of course reading materials as well as on the basis of performance in the end of the semester test and final exam.

**SKILLS**

NFEEn1A\_UO6 is evaluated on the basis of the students' ability to do tasks assigned by the instructor, to analyze new problems in class and to provide explanations/commentary.

**SOCIAL COMPETENCE**

NFEEn1A\_KO1 is developed and evaluated through continual work on home assignments throughout the course, the end of semester test and the final exam.

**3. Course description**

An analysis of the courses on English-Polish contrastive grammar offered at Polish universities has revealed the following: three universities do not offer this course despite the fact that they have a number of other courses in English linguistics in the first cycle.<sup>1</sup> This is the case with respect to the University of Gdansk where such subjects as Introduction to linguistics, Syntax and pragmatics, Phonetics, phonology and morphology, and Semantics as well as History of English are taught. This is true of the Maria Curie-Skłodowska University in Lublin which offers the following linguistics courses: Introduction to linguistics, Descriptive grammar, History of English, and American English as well as to the University of Szczecin where Syntax, Morphology, Pragmatics, Sociolinguistics, and Global English/ELF are given. In the case of two other universities (Bydgoszcz and Rzeszów) the course is offered, as can be seen on the Internet, however, unfortunately there is no access to a description. Despite this it can be deduced that the Chair of English Studies in Bydgoszcz offers 15 hours of lectures and 15 hours of classes during the sixth semester and grants 2 ECTS points, although not even this information is available on the web page of the Institute of English Philology in Rzeszów – just the fact that the course itself does exist as noted above. There is no information concerning the linguistics programme in the case of two other universities; namely the Jan Kochanowski University in Kielce, although the Faculty of Language Studies and History is located at the University's Branch in Piotrków Trybunalski which includes the English Department and the Chair of English Philology at the University of Zielona Góra. All in all, it may be concluded that of the nineteen Polish universities which conduct English studies, only twelve can be included in the present analysis.

What follows are several fragments from the course descriptions for English-Polish contrastive grammar. They present differences between the contents of the syllabi offered at various Polish universities, which reflect diverse research interests of lecturers who teach the

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<sup>1</sup> The course is usually offered at BA level.

course in question as well as show different degree of detail in the description of the content of the course in the syllabi under discussion. While some of them (as shown in sections 3.4., 3.5., or 3.10.) give an exhaustive list of topics to be covered during each teaching unit, others (e.g. in sections 3.7. and 3.8.) contain less precise statements, thus leaving the final choice of the material to be discussed by the lecturer. Besides, it has to be stressed that despite the tendency to internationalize university courses in this country in some cases the syllabi are only in Polish. In such instances I provide my own translation, with the original version in the footnotes.

### **3.1. *The Adam Mickiewicz University in Poznań, Faculty of English*<sup>2</sup>**

The course is obligatory in academic and translation specializations. Year 2, 30 contact hours, 3 ECTS points. Students who specialize in teaching do not take this course, a decision with which some might disagree.

The aim of this course is to provide students with a set of tools that will enable them to analyze and compare languages with respect to their structure and the socio-cultural context in which they are used. While a good part of the course is based on Polish and English, examples are drawn from a wide range of other languages whenever possible. The course is divided into three parts. The introductory part deals with the different ways of classifying languages as well as problems involved in the analysis of language universals. The second part is concerned with a comparison of Polish and English with respect to their phonology, morphology, syntax and lexicon. The analysis of structural similarities and differences between the two languages allows students to discuss such phenomena as substratum transfer, borrowing and code-switching among Polish-English bilinguals. The final part deals with a variety of cultural, social and political issues. The analysis of cultural aspects focuses on, e.g., the reflection of cultural values in Polish and English as well as the hypotheses of linguistic determinism and relativity. As regards social issues, we discuss, e.g., the differences between Polish and English terms of address and the different representation of gender in the two languages. The course ends with a discussion of the role of prescriptive attitudes and the status of dialects in Poland, the British Isles and the United States.

### **3.2. *The John Paul II Catholic University of Lublin*<sup>3</sup>**

The course is obligatory. Year 3, 30 contact hours, 1 ECTS point.

1. History of contrastive studies; the application of contrastive analysis in teaching a foreign language and in translation; the basic terminology (congruence, equivalence, tertium comparationis); the influence of L1 on L2; positive and negative transfer.

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<sup>2</sup> I start with the Adam Mickiewicz University in Poznań as it has the only Faculty of English in Poland, if not in Europe.

<sup>3</sup> Since the conference was held at this university I think it fair enough to describe its course at this point.

2. Phonetics and phonology: a comparison of the articulation of Polish and English sounds.
3. Phonetics and phonology: stress in Polish and English, a comparison of the selected phonological rules.
4. Morphology: prefixation and suffixation, reduplication, category change, back derivation.
5. Morphology: compounds, derivational base and its position in the selected languages.
6. Morphology: fore-clipping, back-clipping, middle-clipping (syncope), complex clipping, blending, acronyms.
7. Borrowings, doublets, calques.
8. Lexicon: lexical transfer, false friends.
9. Lexicon: confused words, semantic fields.
10. Selected grammatical categories.
11. Language typology: the role of flexion and word order.
12. The differences concerning parts of speech and parts of sentence.
13. Structural differences, syntactic structures and their counterparts.
14. Test.
15. Synopsis.<sup>4</sup>

### **3.3. *The Jagiellonian University in Kraków***

The course is obligatory. Year 2, 30 contact hours, 4 ECTS points.

Introduction to language comparison and an overview of selected topics in the contrastive English-Polish morphology, lexicon and syntax, including the inflectional categories of English and Polish, derivational morphology of English and Polish in contrast, English borrowings in Polish (adaptation processes and semantic fields), false friends, grammatical categories and constructions in contrast. Classes comprise a descriptive part and a practical part, where the phenomena discussed are illustrated with real language data and practiced in the form of exercises.

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<sup>4</sup> 1. Historia badań kontrastywnych; zastosowanie wyników analizy kontrastywnej w nauczaniu obcego oraz przekładzie; podstawowa terminologia (kongruencja, ekwiwalencja, tertium comparationis); wpływ L1 na L2: transfer pozytywny i negatywny. 2. Fonetyka i fonologia: porównanie artykulacji głosek polskich i angielskich. 3. Fonetyka i fonologia: akcent w języku polskim i angielskim, porównanie wybranych reguł fonologicznych. 4. Morfologia: prefiksacja i sufiksacja, reduplikacja, przemiana kategorialna, derywacja wsteczna. 5. Morfologia: złożenia, podstawa słowotwórcza i jej pozycja w wybranych językach. 6. Morfologia: skróty aferezowe, apokopowe, synkopowe i eliptyczne, krzyżowanie (mieszanie) wyrazów, akronimy. 7. Zapożyczenia, dublety, kalki. 8. Leksykon: transfer leksykalny, false friends. 9. Leksykon: wyrazy często mylone, pola semantyczne. 10. Wybrane kategorie gramatyczne. 11. Typologia języków: rola fleksji i szyku wyrazów. 12. Różnice w zakresie części mowy oraz części zdania. 13. Różnice strukturalne, konstrukcje składniowe i ich odpowiedniki. 14. Test zaliczeniowy. 15. Podsumowanie kursu.

### 3.4. *Pedagogical University of Cracow*

The course is obligatory. Year 2, 30 contact hours, 2 ECTS points.

1. The characterization of comparative studies. The basic terminology and their definitions.
2. Polish and English segmental phonetics: differences and interference.
3. Polish and English suprasegmental phonetics and phonology. Differences in phonological systems (on-line test).
4. Derivation: nominalization and lexicalization.
5. Derivation: ways of forming denominal and deverbal adjectives.
6. Derivation: aspect in Polish as a morphological category, aspect in English as a syntactic category.
7. Word formation: the most important word formation processes.
8. Verb flexion.
9. Noun flexion.
10. Conditional sentence.
11. Modal verbs.
12. Complements of the verb and adjective.
13. The passive voice and related structures.
14. Negation.
15. Sentence order.<sup>5</sup>

### 3.5. *University of Silesia*

The course is obligatory in the teaching specialization in the 1st and 2nd cycles, whereas in the translation specialization it is offered only in the 1st cycle.

BA level: year 2, 15 contact hours, ECTS points not known.

1. History and future of contrastive studies.
2. Basic concepts: markedness, open-class and closed-class forms.
3. Aspect.
4. Negation (tests for negation, negative polarity items).
5. Definiteness (articles, pronouns, word order), there-insertion.
6. Voice (case and negation; Accusative, indirect and prepositional passive).
7. Gender (obligatoriness, arbitrariness, gender in implicational universals).

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<sup>5</sup> 1. Charakterystyka badań porównawczych. Podstawowa terminologia i definicje. 2. Fonetyka segmentalna polska oraz angielska: obszary różnic, interferencja. 3. Fonetyka i fonologia ponadsegmentalna polska oraz angielska. Różnice w systemach fonologicznych (test online). 4. Derywacja: nominalizacja i leksykalizacja. 5. Derywacja: sposoby tworzenia przymiotników odrzeczownikowych i odczasownikowych. 6. Derywacja: aspekt w języku polskim jako kategoria morfologiczna, aspekt w języku angielskim jako kategoria składniowa. 7. Słowotwórstwo: najważniejsze procesy słowotwórcze. 8. Fleksja czasownika. 9. Fleksja rzeczownika. 10. Zdania warunkowe. 11. Czasowniki modalne. 12. Komplementacja czasownika i przymiotnika. 13. Strona bierna i konstrukcje pokrewne. 14. Negacja. 15. Szyk zdania.

8. Alternations (Dative Alternation. Constraints in Polish and English).
9. Topics chosen by students (per assignments in: Student workload).

M.A. level: 30 hours of lectures, 30 hours of classes, ECTS points not known or the year in which it is taught.

1. A history of contrastive research, typology of linguistics studies (2 h).
2. The process of grammaticalization and grammatical categories in the world languages: an overview (2 h).
3. The basic forms of contrast between Polish and English (structural, categorial and functional) (2 h).
4. Differences between Polish and English on the level of the noun phrase, flexion (number, gender, case, definiteness), pronouns (6 h).
5. Differences between Polish and English on the level of the verb phrase, typology of verbs, modal verbs, flexion (tense, aspect, person, number, gender, mood, voice) (6 h).
6. Simple and complex sentences in Polish and English, the basic types of transformational processes.
7. Interrogative sentences in Polish and English, negation in both languages (2 h).
8. The passive voice in Polish and English, impersonal forms (2 h).
9. Existential sentences.
10. Contrastive pragmatics (speech acts, specialist registers) (2 h).<sup>6</sup>

### 3.6. *University of Wrocław*

The course is obligatory. Year 3, 30 contact hours, 3 ECTS points.

1. Aims and foundations of contrastive studies in linguistics.
2. Accounting for crosslinguistic variation via different parameter settings.
3. Word formation in contrast (affixation, compounding, internal modification, blending, acronyms, clipping, English borrowings in Polish).
4. Types of lexical contrast (lexical transfer, confusing words: each/every, as/like, make/do, say/tell/speak/talk, lie/lay, rise/raise/arise).
5. Adverbs and prepositions in English and Polish.

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<sup>6</sup> 1. Historia badań kontrastywnych, typologia gałęzi językoznawstwa kontrastywnego, podstawowe zastosowania wyników badań kontrastywnych (2 h). 2. Proces gramatyzacji i kategorie gramatyczne w językach świata: przegląd (2 h). 3. Podstawowe formy kontrastu pomiędzy językiem polskim i angielskim (strukturalny, kategoriałny oraz funkcjonalny (2 h). 4. Różnice między językiem polskim i angielskim na poziomie frazy rzeczownikowej, odmiana (liczba, rodzaj, przypadek, określoność), zaimki (6 h). 5. Różnice między językiem polskim i angielskim na poziomie frazy czasownikowej, typologia czasowników, czasowniki modalne, odmiana (czas, aspekt, osoba, liczba, rodzaj, tryb, strona) (6 h). 6. Zdania proste i złożone w języku polskim i angielskim, podstawowe typy procesów transformacyjnych (4 h). 7. Zdania pytające w języku polskim i angielskim, formy negacji w obu językach (2 h). 8. Strona bierna w języku polskim i angielskim, formy bezosobowe (2 h). 9. Zdania egzystencjalne (2h). 10. Pragmatyka kontrastywna (badanie aktów mowy, rejestry specjalistyczne) (2 h).

6. The Noun Phrase in English and Polish: word order, determiners, definiteness, adjectives, the genitive, gender, number.
7. The Verb Phrase in English and Polish: tenses, aspect, modality, conditional sentences, complementation, passive voice.
8. Word order in English and Polish.
9. Subject-verb agreement in English and Polish.

### **3.7. University of Opole**

Unlike other universities the course is called Elements of contrastive linguistics. It is obligatory. Year 2, 30 contact hours, 3 ECTS points.

1. Contrastive research in linguistics.
2. Language typology (genetic and linguistic).
3. Language universals.
4. Contrastive analysis and tertium comparationis.
5. Cross-language contacts.
6. Cross-language transfer and some related problems.
7. Fundamental differences in the structure of Polish and English.

### **3.8. University of Lodz**

The course is obligatory in teaching and translation specializations, 30 contact hours, the year and number of ECTS points are not known.

Basic concepts connected with comparing and contrasting languages; tenets of contrastive analysis; tertium comparationis; equivalence and congruence; English-Polish contrasts at phonetic, phonological, morphological and syntactic levels; language contact, vocabulary and borrowings; differences in semantics and pragmatics.

### **3.9. University of Warsaw**

The course, called English-Polish contrastive syntax, is optional. No information concerning the year, 30 contact hours (format: lecture), 4 ECTS points.

1. Types of contrastive research, their function and application.
2. From hypothesis of contrastive analysis to research on the structure of interlanguage: evolution of psychological and linguistic principles of comparative linguistics.
3. Contrastive analysis in the generative model of first language acquisition; the so-called model of principles and parameters.
4. Lexicon structure, Theta criterion.
5. The role of flexion (declension paradigms) in Polish and English morpho-syntax.
6. X-bar syntax in the description of Polish and English nominal group.

7. Exemplary contrastive analysis: passivization, raising construction, interrogative constructions.
8. Mechanisms of verifying contrastive hypotheses illustrated by pronominal anaphora.
9. Applied contrastive syntax: the passive voice, indirect speech, grammatical tenses.
10. Contrastive syntax in the pedagogical description of English grammar.<sup>7</sup>

### **3.10. Nicolaus Copernicus University in Toruń**

There are two courses offered and they are obligatory. No information concerning the year they are taught, 30 contact hours, 2 ECTS points.

1.
  - Introduction to contrastive studies (2 h).
  - Basic types of linguistic contrasts (2 h).
  - Derivational morphology in Polish and English (4 h).
  - Comparison of selected semantic fields (4 h).
  - Inflectional morphology in Polish and English (2 h).
  - An outline of Polish and English syntactic systems (2 h).
  - Polish-English contrasts in the verb phrase (4 h).
  - Polish-English contrasts in the noun phrase (4 h).
  - Polish and English pronominal systems (2 h).
  - Text cohesion in Polish and English (4 h).
2. The first part of the course is designed to introduce the basic terminology used in contrastive linguistics as well as to locate contrastive linguistics on the spectrum of linguistic disciplines. The second part of the course in Contrastive grammar is devoted to discussing Polish-English morphological and syntactic contrasts. This process is accompanied by broadening students' knowledge of English.

### **3.11. University of Warmia and Mazury in Olsztyn**

The course is obligatory. Year 3, 30 contact hours, 3 ECTS points.

The scope and aims of contrastive linguistics; Language families; Language universals and linguistic typology; Language contact; Descriptive and prescriptive approaches to language; Contrasting phonetics and phonology; Contrasting morphology; Contrasting syntax;

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<sup>7</sup> 1. Rodzaje badań kontrastywnych, ich funkcje i zastosowanie. 2. Od hipotezy analizy kontrastywnej po badania nad strukturą interjęzyka: ewolucja psychologicznych i lingwistycznych założeń językoznawstwa porównawczego. 3. Analiza kontrastywna w generatywnym modelu akwizycji języka pierwszego: tzw. model zasad i parametrów. 4. Struktura leksykonu, kryterium Theta. 5. Rola fleksji (paradygmaty deklinacyjne) w polskiej i angielskiej morfo-składni. 6. Składnia kategorii wzmocnionych w opisie polskiej i angielskiej grupy nominalnej. 7. Przykładowe analizy kontrastywne: pasywizacja, konstrukcja podnosząca, konstrukcje pytające. 8. Mechanizmy weryfikacji hipotez kontrastywnych na przykładzie dystrybucji anafory zaimkowej. 9. Składnia kontrastywna stosowana: strona bierna, mowa zależna, czasy gramatyczne. 10. Składnia kontrastywna w pedagogicznym opisie gramatyki języka angielskiego.

Contrasting lexicon; Languages and culture; Pragmatics; Language and society: Terms of address; Language and gender; Non-verbal communication.

This is an old syllabus. Nowadays it is taught in a way which seems to be unique in Poland. On the basis of Fisiak *et al.* (1978) the fundamental problems concerning syntax, morphology, phonology and semantics are discussed.<sup>8</sup> This is followed by practical exercises based on two books that by: T. Pratchett and its Polish translation on the one hand, and that by A. Sapkowski and its English version, on the other.

### 3.12. *University of Bialystok*

Two courses are taught and both seem to be obligatory:

English-Polish contrastive grammar. Year 3, 15 contact hours, 1 ECTS point.

1. Introduction to contrastive linguistics (lecture 1).
  - equivalence and congruence, types of equivalence (formal vs. dynamic)
2. Morphological contrast between English and Polish (lectures 2–5)
  - a) derivational morphology
    - word formation processes in English and Polish
    - English borrowings in Polish
  - b) inflectional morphology
    - the categories of tense, aspect, mood, modality (verbs)
    - the categories of number, case, gender (nouns, pronouns, adjectives, determines)
  - c) morphological errors made by Polish students of English (derivational, inflectional).
3. Syntactic contrast (lectures 6–10)
  - a) types of syntactic contrast (structural, functional, categorial)
  - b) word order in English and Polish (word order patterns, the position of adjectives and adverbs)
  - c) sentence elements in English and Polish (subjectless sentences in Polish, verb complementation)
  - d) concord: subject-verb agreement
  - e) common syntactic errors made by Polish students of English.
4. Lexical and semantic contrast (lectures 11–13)
  - a) types of semantic contrast (inclusion, overlapping, semantic contrast – ‘false friends’)
  - b) elements of cross-cultural semantics: culture-related differences between English and Polish lexicon (A. Wierzbicka)
  - c) Types of lexical errors.
5. Pragmatic contrast: speech acts in a contrastive perspective: making request, offers, invitations, apologies, giving advice; pragmatic errors (lectures 14–15).

Polish-English contrastive phonetics. 15 contact hours, 2 ECTS points, however, neither its content nor any information related to the year it is taught is available.

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<sup>8</sup> This order of topics has been indicated.



#### 4. Conclusion

All in all, we can conclude that in most cases the courses focus on the similarities and differences between English and Polish, especially on the lexical and grammatical levels, and occasionally on differences in pragmatics and semantics. They provide Polish students of English with knowledge that will be essential in their future professional careers either as teachers of English or translators and interpreters. However, hardly ever are the phonological and phonetic differences between the two languages in question considered, and the graphemic level of contrastive analysis is omitted in every case. Only in certain programmes are the semantic and pragmatic aspects included. At this point it should be noted that in our handbook (Willim, Mańczak-Wohlfeld 1997: 11) only the following areas of contrast are addressed:

- morphological, including differences stemming from the fact that English is an analytic while Polish is a synthetic language,
- lexical, including easily confused words, common collocations, prepositions,
- grammatical, including considerations of word order, subject-verb concord, the tenses.

However, these limitations are due to the size and scope of the work. Besides, since traditional structuralism is used as a point of reference, the semantic and pragmatic aspects are automatically excluded from consideration.

With regard to the courses discussed above it has to be noted that some are very ambitious and in a few cases one wonders whether it is feasible to cover so many topics. Occasionally, reference to world languages is suggested, which in fact goes beyond the scope of English-Polish contrastive grammar. Some programmes suggest starting the analysis with Polish before moving on to English, which is perhaps the right direction although it is contradictory with regard to the name of the subject because, as mentioned above, the course is usually called English-Polish contrastive grammar. The required and recommended bibliography differs, which is understandable considering the differences in the course content, although at most universities two books are included, namely Fisiak *et al.* (1978) as well as Willim and Mańczak-Wohlfeld (1997), which indicates that fairly outdated publications are used. Most probably this results from the fact that no other monograph or practical grammar book devoted to English-Polish contrastive grammar has been published more recently.

There are also many formal/technical differences between the courses. Most are called English-Polish contrastive grammar, unless indicated otherwise in the above discussion. Further differences concern the year it is studied, the number of contact hours, although a 30 h course is most common, the format (the class and lecture), and the number of ECTS points, which vary from 1 to 4. Except for the University of Warsaw the course is obligatory and usually offered at the first cycle. Only at the University of Silesia is there a more advanced course for MA students.

As stated in the abstract and in section 1 the aim of the present paper is to suggest an “ideal” syllabus. It is fortunate as in fact I do not have to invent a programme as that offered

at the University of Lodz more or less meets my expectations and even to a greater extent that of the John Paul II Catholic University in Lublin, which almost correlates with my idea of an “ideal” syllabus. This is because it covers not only almost all levels of language description but also contains a history of contrastive studies as well as the basic terminology used in this field. However, perhaps certain modifications could be introduced, namely the addition of English-Polish contrast on the graphemic level after point 3. Besides, I would suggest joining points 8 (Lexicon: lexical transfer, false friends) and 9 (Lexicon: confused words, semantic fields) and omitting both point 12 (The differences concerning parts of speech and parts of sentence) and point 15 (Synopsis, although the content of this part is not entirely clear). Instead I would suggest the introduction of semantic contrast, which could be placed after point 13 (Structural differences, syntactic structures and their counterparts), and could then be followed by pragmatic considerations with reference to English and Polish. Finally, I would prefer to start with English and contrast it with Polish to be consistent with the name of the course in question. However, whether teachers of English-Polish contrastive grammar will accept my proposal remains to be seen.

## References

- Fisiak, J., Lipińska-Grzegorek, M., and Zabrocki, T. 1978. *An introductory English-Polish contrastive grammar*. Warszawa: PWN.
- Krzyszowski, T.P. 1990. *Contrasting languages: The scope of contrastive linguistics*. Berlin: Mouton de Gruyter.
- Krzyszowski, T.P. 2011. *English contrastive studies. From the fifteenth to the eighteenth century*. Frankfurt/M: Peter Lang.
- Willim, E., Mańczak-Wohlfeld, E. 1997. *Contrastive approach to problems with English*. Kraków: Wydawnictwo Naukowe PWN.

## Internet sources

[www.ifa.uni.wroc.pl](http://www.ifa.uni.wroc.pl)  
[www.ifa.filg.uj.edu.pl](http://www.ifa.filg.uj.edu.pl)  
<http://filg.ug.edu.pl>  
[www.umcs.pl/pl/institut-anglistyki,889.htm](http://www.umcs.pl/pl/institut-anglistyki,889.htm)  
[www.wf.usz.edu.pl](http://www.wf.usz.edu.pl)  
[www.ukw.edu.pl/jednostka/katedra\\_filologii\\_angielskiej](http://www.ukw.edu.pl/jednostka/katedra_filologii_angielskiej)  
[m.univ.rzeszow.pl/wydzialy/filologiczny/institut-filologii-angielskiej](http://m.univ.rzeszow.pl/wydzialy/filologiczny/institut-filologii-angielskiej)  
[wfh.unipt.pl/index.php?option=com\\_content&view=article&id=993](http://wfh.unipt.pl/index.php?option=com_content&view=article&id=993)  
[www.in.zgora.pl/index.php/o-institutcie/katedra-filologii-angielskiej](http://www.in.zgora.pl/index.php/o-institutcie/katedra-filologii-angielskiej)  
[www.wa.amu.edu.pl](http://www.wa.amu.edu.pl)  
[www.kul.pl/strona-startowa,art.393.html](http://www.kul.pl/strona-startowa,art.393.html)  
[neofilologia.up.krakow.pl/?page\\_id=106](http://neofilologia.up.krakow.pl/?page_id=106)  
[www.fil.us.edu.pl](http://www.fil.us.edu.pl)  
[www.ifa.opole.pl](http://www.ifa.opole.pl)  
[anglistyka.uni.lodz.pl](http://anglistyka.uni.lodz.pl)  
[www.ia.\\_uw\\_educ.pl](http://www.ia._uw_educ.pl)  
[www.maius.umk.pl/ang/](http://www.maius.umk.pl/ang/)  
[www.uwm.edu.pl/anglistyka/](http://www.uwm.edu.pl/anglistyka/)

# Two steps backwards: A bibliometric analysis of L2 vocabulary research in 1984

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## Abstract

This paper is the fourth instalment in a series of studies which attempt to plot the way research in L2 vocabulary acquisition has developed over the last fifty years. Earlier papers have analysed the research for 1982, 1983 and 2006 (Meara 2012, 2014, 2015). This paper follows on directly from my analysis of the 1983 research, and it uses the same bibliometric techniques that were used in the earlier papers: the **co-citation methodology**, first developed by Small (1973) and White and Griffith (1981). The analysis of the 1984 data shows some consolidation of the main research themes, but for the most part the L2 vocabulary research published in this year continues to be made up of small research clusters, sharing few common points of reference.

**Keywords:** L2 vocabulary acquisition, vocabulary research, bibliometric analysis

## 1. Introduction

This paper is the fourth instalment in a series of studies intended to examine the way research in L2 vocabulary acquisition has developed over the last fifty years. Earlier papers have analysed the research for 1982, 1983 and 2006 (Meara 2012, 2014, 2015). These analyses show that the research reported in 1982 and 1983 is very different from the research reported in 2006. The Significant Influences that we can identify in the early work appear to be relatively short-lived, and few of them are still being cited in the later work. This suggests that some sort of paradigm shift has taken place in the way researchers think about vocabulary, and it becomes interesting to ask when exactly does this shift take place, and what changes in thinking is the shift comprised of.

In my analysis of the 1983 vocabulary research (Meara 2015), I showed that there had been a marked surge in the number of research outputs. At first sight, it looked as though 1983 might have marked the beginning of the modern re-discovery of vocabulary, as there was a substantial rise in the number of vocabulary research papers appearing in this year. However, as we shall see, 1983 turns out to be something of a false dawn – the surge is not maintained into 1984. In fact, the number of research outputs in the 1984 data was even lower

than the already low level of outputs that had appeared in 1982: the VARGA database (Meara n.d.) logs 41 eligible outputs for 1982, but only 36 outputs for 1984: a clear case of two steps forward and one step back. In spite of this fall back, there are a few features in the 1984 data which make it worth reporting, and there are some hints in the data that significant changes might be on the horizon.

## 2. The data sources

The complete dataset for 1984 is shown in Table 1.

**Table 1:** *The sources used in the analysis.*

**Arnaud, P.J.L.**

The lexical richness of L2 written productions and the validity of vocabulary tests. *University of Essex, Department of Language and Linguistics, Occasional Papers No 29* (1984), 14-28.

**Arnaud, P.J.L.**

A practical comparison of five types of vocabulary tests and an investigation into the nature of L2 lexical competence. AILA Congress, Brussels. 1984.

**Bahrck, H.**

Fifty years of second language attrition: implications for programmatic research. *The Modern Language Journal* 68(1984), 105-118.

**Bahrck, H.**

Semantic memory content in permastore: fifty years of memory for Spanish learned in school. *Journal of Experimental Psychology: General* 113(1984), 1-29.

**Beheydt, L.**

Woordenschat in het VTO [Vocabulary in foreign language teaching]. *Neerlandica Extra Muros* 42(1984), 17-27.

**Bensoussan, M., and B. Laufer**

Lexical guessing in context in EFL reading comprehension. *Journal of Reading* 7(1984), 15-32.

**Bensoussan, M., D. Sim, and R. Weiss**

The effect of dictionary usage on EFL test performance compared with student and teacher attitudes and expectations. *Reading in a Foreign Language* 2(1984), 262-276.

**Binon, J., and A.-M. Cornu**

L'acquisition du vocabulaire en français fonctionnel. [The acquisition of vocabulary in functional French]. *Fachsprache* 6(1984), 10-27.

**Bramki, D., and R.C. Williams**

Lexical familiarisation in economics text, and its pedagogic implications in reading comprehension. *Reading in a Foreign Language* 2,1(1984), 147-163.

**Cunningsworth, A.**

Teaching tips for vocabulary 2. *Practical English Teaching* 4,1(1984), 26-27.

**Dalrymple-Alford, E.C.**

Bilingual retrieval from semantic memory. *Current Psychological Research and Reviews* 3(1984), 3-13.

**Fox, J.**

Computer-assisted vocabulary learning. *English Language Teaching Journal* 38,1(1984), 27-33.

**Kent, J.-P.**

Woordassociatie en vreemdetalenonderwijs. [Word associations in foreign language teaching.] *Levende Talen* 395(1984), 525-530.

**Kirsner, K., M.C. Smith, R.S. Lockhart, H.L. King, and M. Jain**

The bilingual lexicon: language-specific units in an integrated network. *Journal of Verbal Learning and Verbal Behaviour* 23(1984), 519-529.

**Kotsinas, U.-B.**

Semantic over-extension and lexical over-use in immigrant Swedish. *Scandinavian Working Papers in Bilingualism* 2(1984), 23-42.

**Le Compagnon, B.**

Interference and overgeneralization in second language learning: the acquisition of English dative verbs by native speakers of French. *Language Learning* 34,3(1984), 39-67.

**Lightbown, P.M., and G. Libben**

The recognition and use of cognates by L2 learners. In: **R.W. Anderson** (ed.), *A Crosslinguistic perspective for second language research*. Rowley, Mass.: Newbury House. 1984.

**Lübke, D.**

Der potentielle Wortschatz in Französisch. [Potential Vocabulary in French.] *Praxis des Neusprachlichen Unterrichts* 31,4(1984), 372-379.

**Martin, M.**

Advanced Vocabulary Teaching: the problem of synonyms. *Modern Language Journal* 68,2(1984), 130-137.

**Meara, P.M.**

The study of lexis in interlanguage In: **A. Davies, C. Cripser, and A.P.R. Howatt** (eds.), *Interlanguage*. Edinburgh: Edinburgh University Press. 1984. 225-235.

**Mägiste, E.**

Stroop tasks and dichotic translation: the development of interference patterns in bilinguals. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 10,2(1984), 304-315.

**Mägiste, E.**

Learning a third language. *Journal of Multilingual and Multicultural Development* 5,5(1984), 415-421.

**Perecman, E.**

Spontaneous translation and language mixing in a polyglot aphasic. *Brain and Language* 23(1984), 43-63.

**Pons-Ridler, S.**

Oral comprehension: a new approach. *British Journal of Language Teaching* 22,2(1984), 87-102.

**Potter, M.C., K.-F. So, B. Von Eckardt, and L.B. Feldman**

Lexical and conceptual representation in beginning and proficient bilinguals. *Journal of Verbal Learning and Verbal Behavior* 23(1984), 23-38.

**Saville-Troilke, M.**

What really matters in second language learning for academic achievement? *TESOL Quarterly* 18(1984), 199-220.

**Scarborough, D., L. Gerard, and C. Cortese**

Independence of lexical access in bilingual word recognition. *Journal of Verbal Learning and Verbal Behavior* 23(1984), 84-99.

**Schlyter, S.**

L'acquisition des verbes de déplacement/mouvement par les adultes suédois. [The acquisition of French locative verbs by adult Swedes.] *Papers from the Institute of Linguistics, University of Stockholm*, no 52, 1984.

**Sharwood Smith, M.**

Discussion. In: A. Davies, C. Criper, and A.P.R. Howatt (eds.), *Interlanguage*. Edinburgh: Edinburgh University Press. 1984.

**van Helmond, K., and M. van Vugt**

On the transferability of nominal compounds. *Interlanguage Studies Bulletin* 8(1984), 5-34.

**Xue, G., and I.S.P. Nation**

A University Word List. *Language Learning and Communication* 3,2(1984), 215-229.

**Williams, R., and D. Dallas**

Aspects of vocabulary in the readability of content area L2 educational textbooks: a case study.

In: J.C. Alderson, and A. Urquhart (eds.), *Reading in a foreign language*. London: Longman. 1984. 199-212.

**Excluded items****Nesi, H.**

Dealing with lexical errors. MSc dissertation, Dept of ESP. 1984. Aston University.

**Price, K.**

Closed-captioned TV: an untapped resource. *MATSOL Newsletter* 12(1984), 4-5.

**Takala, S.**

*Evaluation of students' knowledge of English vocabulary in the Finnish comprehensive school*. Jyväskylä: Reports of the Institute of Educational Research, No. 350. 1984.

Of these, one source (Nesi) was a dissertation and another (Takala) was a book length report: publications of this sort are conventionally not included in co-citation analyses because they cite previous research in a way which is different from what we find in standard research papers. Price proved to be unobtainable. These three sources were therefore excluded from the analysis, leaving a total of only 33 sources to be used in the analysis that follows.

A total of 48 distinct authors contributed to this rather small dataset. Four authors (**Arnaud, Bahrck, Bensoussan and Mägiste**) contributed to two papers. The remaining 44 authors contributed to only a single paper. This distribution is somewhat flatter than the equivalent data for 1982 and 1983, another sign that vocabulary research has not yet built up a good head of steam at this time.

### 3. Analysis

The citations from the 1984 data set were analysed using the same methodology that we used in the earlier papers in this series. The principle analysis goes beyond the raw statistics reported in the previous section, and attempts to identify the important research themes which emerge in the 1984 literature. It does this by means of a **co-citation analysis** of the 33 papers in the data base. The co-citation method was developed by Small in a number of papers published in the 1970s (e.g. Small 1973), building on earlier bibliometric work by Price (1965). The method has been extensively used to analyse research in the natural sciences (e.g. White and 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

contributing to a source 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 co-citations. Most authors are typically cited in only a single paper, but other, more influential authors are cited in more than one paper, and often these influential authors are cited alongside other influential authors. Small argued that papers which are characterised by shared co-citations are thematically related, and frequently occurring co-citations can be taken as indicators of influential ideas in the research community. This idea allows us to identify the main theoretical concerns of the research community, and shifts in the way the research community is thinking.

One practical problem with the co-citation approach is that the number of co-citations in even a small data set can be very large. A paper which cites only ten single author sources generates 45 co-citations (Source A is co-cited with Source B, with Source C, with Source D, with Source E, and so on down to Source H – co-cited with Source I and Source J – and the final co-citation between Source I and Source J). Papers that cite large number of sources generate enormous co-citation lists: a single paper that cites 20 single author sources gives us 380 co-citations, while a single paper that cites 50 sources – not uncommon in feature of recent research – gives us 2450 co-citations. And these numbers increase rapidly when sources authored by more than a single author appear in a list of references. Fortunately, the 1984 data set consists of papers with relatively short bibliographies for the most part, but even so 603 unique authors are identified in the research 1984 output. Table 2 shows the number of papers in which these authors are cited.

**Table 2:** *The distribution of citations in the 1984 database.*

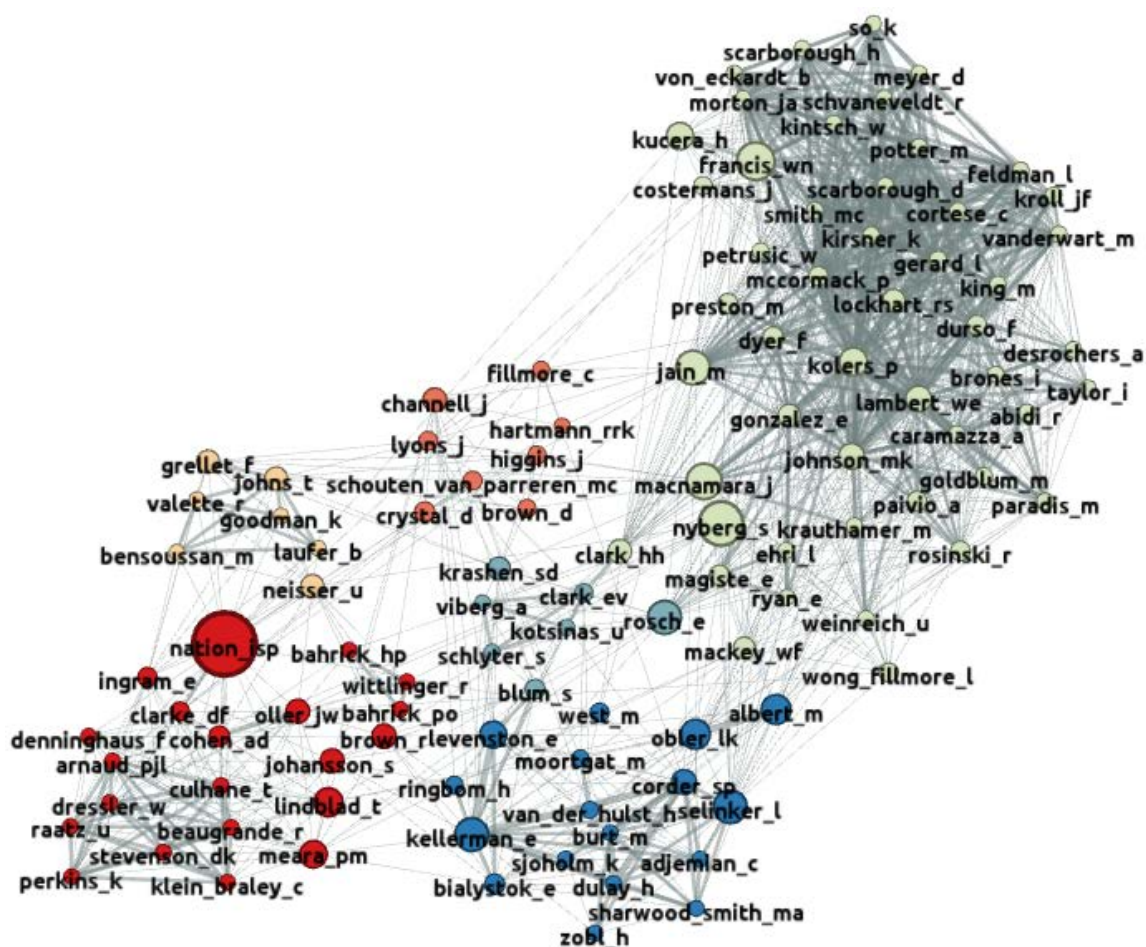
frequency	10	9	8	7	6	5	4	3	2	1
cases				1	0	4	5	22	78	493

As in previous years, the vast majority of authors are cited in only a single research output, but a small number are cited more broadly: **Kolers** is cited in seven papers, **Corder** in six, **Kellerman**, **Lambert** and **McCormack** are each cited in five papers, and **Eve Clark**, **Gonzalez**, **Johnson**, **Macnamara** and **Nation** each appear as citations in four of the 1984 papers.

Normal practice in co-citation analysis is to identify the 100 most-cited authors in a data set, and to focus on the co-citations patterns among these authors. It is important to note that these most-cited authors do not necessarily contribute directly to the 1984 data set, but the work they published in earlier years can be considered to be influential on the research work appearing in 1984. For 1984, we can safely ignore the 493 authors who are cited only in a single paper, in that their influence is relatively limited, but we can identify 110 authors whose work has influenced at least two papers in the 1984 output. This figure of 110 authors is very close to the conventional number of 100 which is commonly used for bibliometric mapping analyses, and the reports that follow are based on this data. However, readers, should be aware that the very small number of papers published in 1984 means that the

inclusion threshold for this data set is **extremely** low. This makes the co-citation data difficult to analyse with any confidence, and considerable caution needs to be exercised when evaluating the analysis that follows.

Once we have identified the most frequently cited authors in the data set, the next step is to examine the way these authors are co-cited in our research outputs. For this paper, this rather laborious process was carried out using a specially written computer program. The output from this program is a list of authors and a list of co-citation pairs in a format that can serve as input to a standard mapping program. The next step in the analysis is for the mapping program to generate a map which shows the pattern of co-citations between the most cited authors. In this paper, we used GEPHI (Bastian, Heymann, and Jacomy 2009) to generate maps from the co-citation data. Gephi performs a cluster analysis on the data, grouping together authors who tend to be cited alongside each other in a number of papers. Gephi's output consists of a physical map which shows the composition of the clusters identified by the program and the relationship between them. The clusters are generally taken to represent "invisible colleges" in the data – i.e. groups of influential researchers who share similar reference points and a common research focus. Gephi's output for the 1984 data is shown in Figure 1.



*Figure 1: Co-citation analysis of 110 authors who are cited at least 2 times in the 1984 corpus. Nodes are sized according to their betweenness centrality.*



In this map, each node represents a single author, and nodes with the same colour are sets of authors who tend to be cited together in the same paper. For example, in this data set, a paper that cites Kolers is also likely to cite Lambert and Lockhart, but is unlikely to cite Kellerman or Selinker. The strength of the pairings is shown by the thickness of the line connecting the relevant nodes.

Gephi's analysis of the 1984 data identifies six principle clusters, which are described in detail below. Gephi has identified 1285 co-citation links in this data set, but because of the low inclusion threshold we adopted, many of these links are very weak. In fact, co-citations which occur only once in the dataset make up 82% of the total number of edges. With a larger data set, very weak links of this sort would be eliminated by setting a minimum strength requirement for a link to be displayed in the map, but the very low inclusion threshold we used for this data set allows these weak links to strongly influence the structure of the map.

In order to make the overall clustering patterns easier for readers to see, I have provided a second map (Fig. 2) in which these very weak links have been removed, and only the stronger links remain. The effect of this surgery is that Figure 2 contains a number of nodes (15) that are not connected to the main clusters in the map. In addition, some of the clusters fragment into smaller clusters once the very weak links are removed. However, the six clusters identified in Figure 1 are still identifiable in Figure 2.

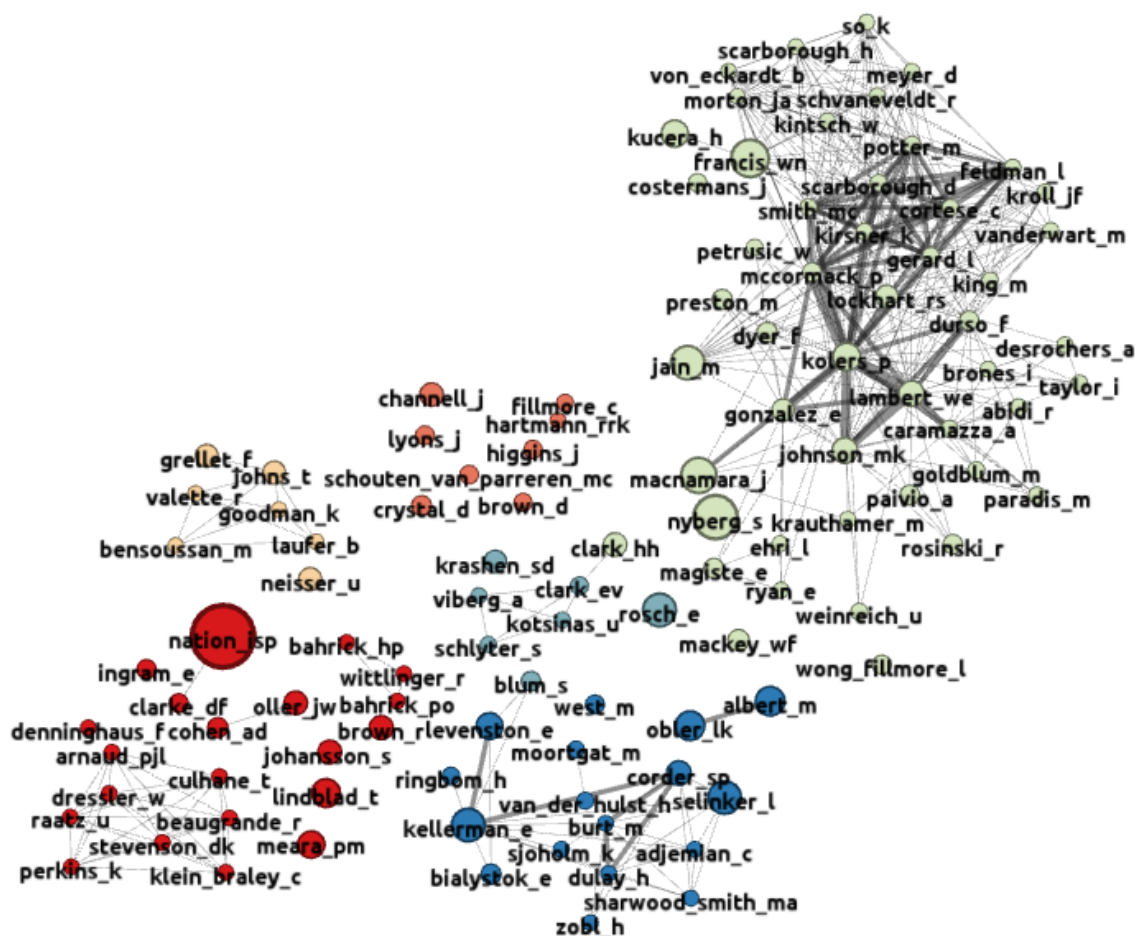


Figure 2: A simplified version of Figure 1, with the weakest links removed.

**Cluster I** at the Northeastern corner of the map is the largest cluster. It consists mainly of psychologists whose work has influenced the study of the way bilingual subjects perform on verbal tasks. This cluster will be familiar to readers from our analyses of data from earlier years, and it contains a number of influences that were identified in these earlier analyses. This persistent cluster has a high level of connectivity within itself, but it has no strong links to the other clusters in the map.

**Cluster II** at the South Central portion of the map also includes a number of sources who were identified in our analysis of the 1983 data. The sources in this cluster are mainly concerned with lexical errors and lexical transfer, and seem to be strongly associated with the *Interlanguage Studies Bulletin* group based in Utrecht.

The cluster also includes two detached sub-clusters (**Albert and Obler, Moortgat and van der Hulst**) and **West** who appears here as a detached singleton. In our analysis of the 1983 data, Albert and Obler's work was more closely associated with the formal psycholinguistic studies. This subtle shift may suggest that Albert and Obler's work was beginning to influence linguists, and seems to be a sign that mainstream vocabulary research was becoming slightly more aware of the psycholinguistic issues that were considered important at the time. The Moortgat and van der Hulst sub-cluster seems to be a reflection of the growing importance of lexical factors in mainstream linguistic analysis (cf. Covington 1983).

**Cluster III** at the Southwestern edge of the map is the least coherent of the groups identified by Gephi. In Figure 2, it appears as three small subclusters, two pairings and a set of seven detached singletons, though a glance at Figure 1 will show that this cluster is connected by a substantial number of weak co-citations. The sub-cluster containing **Bahrck, Bahrck** and **Wittlinger** represents a small literature that deals with long term acquisition and retention of vocabulary, the first time that this topic has appeared in these maps. The **Dressler/Stevenson** subcluster is mainly concerned with the practical consequences of a small vocabulary. **Clarke and Nation** is a paper that deals with guessing the meanings of unknown words. **Cohen and Oller** seem to be the principal US authors working on vocabulary at this time.

The most notable feature in this cluster is the emergence of Paul Nation as the key figure in terms of *betweenness centrality*. The betweenness centrality measure reflects how likely it is that a source will appear on a path connecting two randomly selected sources in the map. This means that sources with a high betweenness centrality score tend to be people who share co-citation links with two or more large clusters. In this case, the critical co-citations are **Nation ~ Kucera** and **Nation ~ Francis**, which show up as weak links in Figure 1, where they provide the only direct links between Cluster I and Cluster III. **Kucera and Francis** (1967) was a word frequency count widely used at the time by psychologists to control for variation in the characteristics of stimuli used in word recognition studies. Nation, of course, is using word frequency for other purposes, principally for determining the difficulty levels of reading texts in English. Gephi cannot distinguish these two uses of the frequency counts, so Nation's high betweenness score in this data set might not be quite as significant as it appears to be.

**Cluster IV**, at the Western edge of the map, seems to be the 1984 incarnation of the reading cluster that we identified in 1983. The key influence here is **Goodman**.

**Cluster V**, in the central part of the map, is made up of only seven sources. This cluster seems to be mainly concerned with transfer and the development of L2 meanings. This cluster is the only one of the four smaller clusters that has a direct link with cluster I – **Eve Clark** (cluster IV) and **Herbert Clark** (cluster I) published a number of joint papers in the area of child language acquisition in the early 1980s.

The remaining cluster, **Cluster VI**, consists of 8 sources – **Hartmann, Brown, Fillmore, Lyons, Crystal, Higgins, Channell** and **Schouten-van Parreren**. These sources are cited at least twice in the dataset, but the co-citation links between the members of the cluster are weak. On the other hand, each member of this cluster has a co-citation link to at least two other clusters, and this suggests that this cluster might represent important sources from outside the vocabulary research community. **Crystal** fits this general description, as does **Lyons**, whose text book *Introduction to General Linguistics* (1968) was particularly influential around this time. However, the general description does not fit the other sources in the cluster. **Hartmann** represents a dictionary research strand. **Channell** and **Schouten-van Parreren** are both cited here for their work on guessing behaviour. Schouten-van Parreren stands out from the other members of this group who are all British or American sources. In short, it is not easy to establish what holds these sources together as a cluster, but it is probably something to do with the way L2 meanings are represented.

A comparison between the 1984 map and the 1983 data (Fig. 3), shows that the outlines of the co-citation maps for the two years remain broadly similar. Although the cluster patterns are weaker in the 1984 map, both maps contain a densely connected cluster of psychologist researchers, and a much looser set of researchers who would probably identify themselves as linguists. In both maps, this latter group is split into smaller, loosely connected clusters. In contrast, the psychology cluster is strongly interconnected in both maps, though the very dense clustering that dominates the 1983 map has become slightly less intense in 1984, and **Kolers** has replaced **Lambert** as the central figure in this group. Kolers and Paradis published an influential special issue of the *Canadian Journal of Psychology* on psychological and linguistic studies of bilingualism in 1980, which may have contributed to this shift (Kolers and Paradis 1980).

There are a few weak links between the two main cluster groupings, but their number is small.

The linguistics clusters in the 1984 map are fewer in number than in the 1983 map, perhaps hinting that some sort of consolidation is beginning to take place. As in the 1983 map, it is difficult to see the emergence of a coherent L2 vocabulary theme in the 1984 data: both within clusters and between clusters, the map is dominated by very weak co-citation links, and even the strongest co-citations appear only a handful of times in the data set. The gulf between the psychological cluster and the linguistics clusters seem to have become rather more obvious than it was in 1983. In numerical terms, the linguistics clusters account for more than half of the sources that appear in the map, but it is clear that they remain heterogeneous in nature, and do not represent an organised or coherent approach to L2

vocabulary acquisition. The largest grouping apart from the psychologists is Cluster III, which contains a number of sources who will go on to become very significant figures in the L2 vocabulary literature, but at this point of time they are still looking marginal to the whole enterprise.

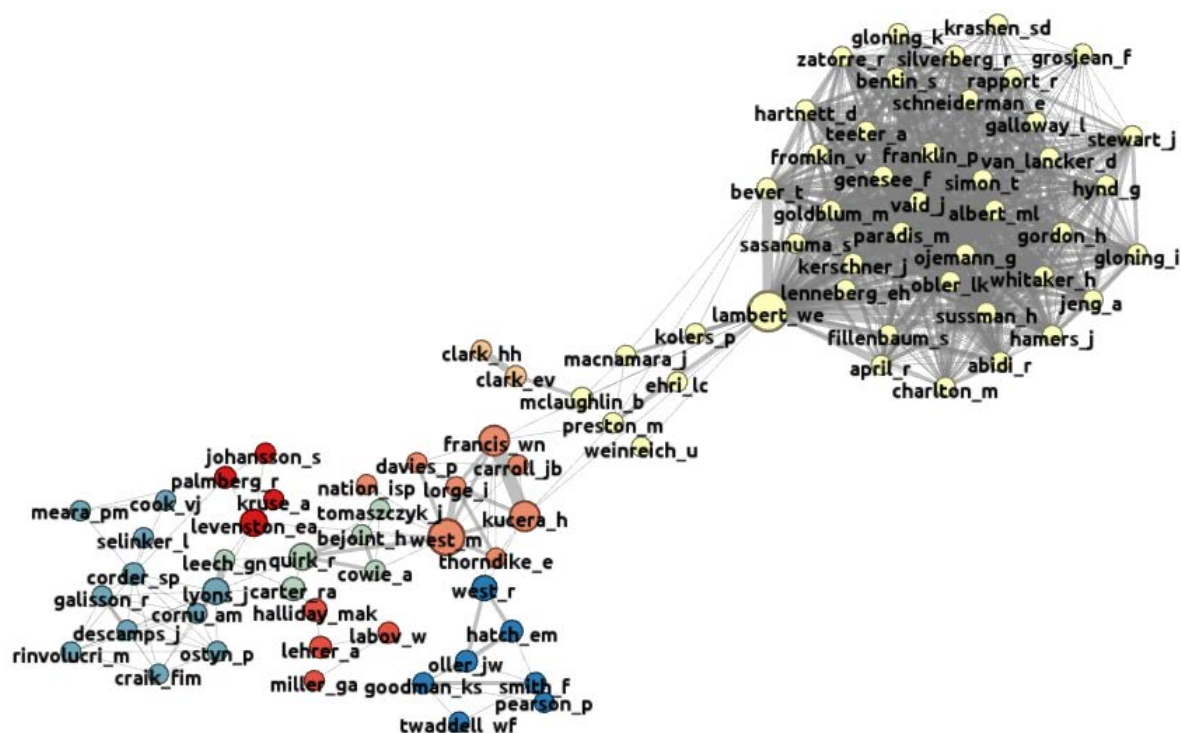
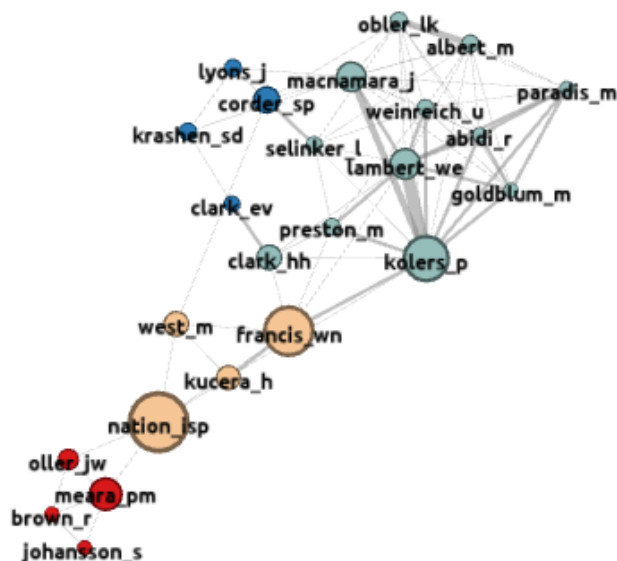


Figure 3: The 1983 co-citation map. Sources in this map are cited at least three times in the data set.

A rather different picture emerges if we look at the “survivors” – authors who appear in both the 1983 and the 1984 maps. These authors – and their shared co-citations – are shown in Figure 4. A total of 24 authors survived from 1983 to 1984. In spite of the reduced number of publications in the 1984 database, this was about the same number as survived from 1982-1983, but it represents a slightly smaller percentage of the total data set than did the number of 1982-83 survivors. Using Gephi’s cluster analysis procedures, we find that the survivors can be grouped into four clusters, broadly reflecting our analysis of the larger data set. A surprisingly large proportion of these survivors were also survivors from 1982-1983 – **Lambert, Kolers, Macnamara, Albert, Obler, R Brown, Kucera, Francis, West, Lyons and Meara**. These sources are beginning to look like the hard core of L2 vocabulary research around this period. It is worth pointing out, though, that almost everyone in this list is a psychologist.

When we take account of the weaker co-citations in the 1983-84 survivor set, these 24 authors form a connected network of co-citations, but removing the the more ephemeral citations for this map changes the importance of more persistent authors. The strongest co-citations in the survivor network are between **Lambert and Kolers, Lambert and Macnamara, Lambert and Paradisi, and Albert and Obler** – emphasising the continued importance of the Montreal research group that we identified in our analysis of the 1983 data.

However, for the first time we see **Paul Nation** emerge as a significant influence forming part of a cluster focussed on frequency counts and word lists.



*Figure 4: The survivors from 1983-1984.*

In addition to the “survivors”, we can also identify 86 new authors who appear in the 1984 dataset. Some of these authors had already appeared in the 1982 dataset, were not strongly cited in the 1983 dataset, but reappeared in 1984. Most, however, are new authors who might be indicative of new, emergent research trends. We can map out the pattern of co-citations between these 86 new authors, and this analysis is presented in Figure 5.

The main points to note here include the surprisingly large number of new sources in the psycholinguistic cluster, and the emergence of Bahrick’s pseudo-longitudinal studies as a separate research cluster. Rosch and Nyberg emerge as possible points of contact between the main research clusters.

#### 4. Discussion

It is difficult to avoid the conclusion that 1984 was not a good year for L2 vocabulary research – fewer than 40 eligible papers were published in this year, and there was a very large degree of “churn” in the citation data. With only 24 of the 1983 authors persisting into 1984, almost 75% of the authors in the 1984 map are new. In spite of this, and in spite of the small number of papers in the dataset, the overall picture that emerges for 1984 is quite similar to the map we reported for 1983, suggesting that the research environment at this time is relatively stable. Both maps show a highly interconnected cluster of psychologists whose work informs L2 vocabulary research, and a looser collection of linguists who play a role in this literature. However, these two cluster sets are almost completely detached, in the sense that few members of the psychology cluster are co-cited alongside linguists, and vice versa. The very dense co-citations in the psychology cluster suggest that there is a large and coherent body of work in this area, but the scarcity of co-citations from this cluster to the other clusters in the 1984 map suggests that this work is largely ignored by linguists working on L2 vocabulary.

Equally, of course, it is rare to find the work of linguists being cited in papers published in the psychological journals, which suggests that the psychologists do not have a strong grasp of the concerns of the linguists. The two main themes that emerge in the linguistics clusters are *transfer* and *reading*. Transfer seems to be a new theme in the 1984 literature, since it is not well-represented in the 1983 map. This cluster seems to have a strong geographical influence, in that the sources are mainly European researchers. **Kellerman** and **Ringbom** seem to be the most important sources, and again, the influence of the *Interlanguage Studies Bulletin* stands out very clearly. It is more difficult to find a coherent description of the second group of linguistic sources. Broadly speaking, this group is concerned with L2 reading behaviour – a theme which appeared as a nascent cluster in the 1983 map. However, the cluster in the 1984 map looks rather different from the reading cluster in the 1983 map. I think this is probably an artefact of the small number of papers published in 1984. Two members of this cluster (**Arnaud** and **Bensoussan**) both published two papers in 1984: not surprisingly, they tend to cite the same people in both papers and this means that the co-citation links between the authors that they cite appear to be stronger than they really are. Nevertheless, the pattern of co-citations in this cluster hints that we might expect some growth in this area in future years.

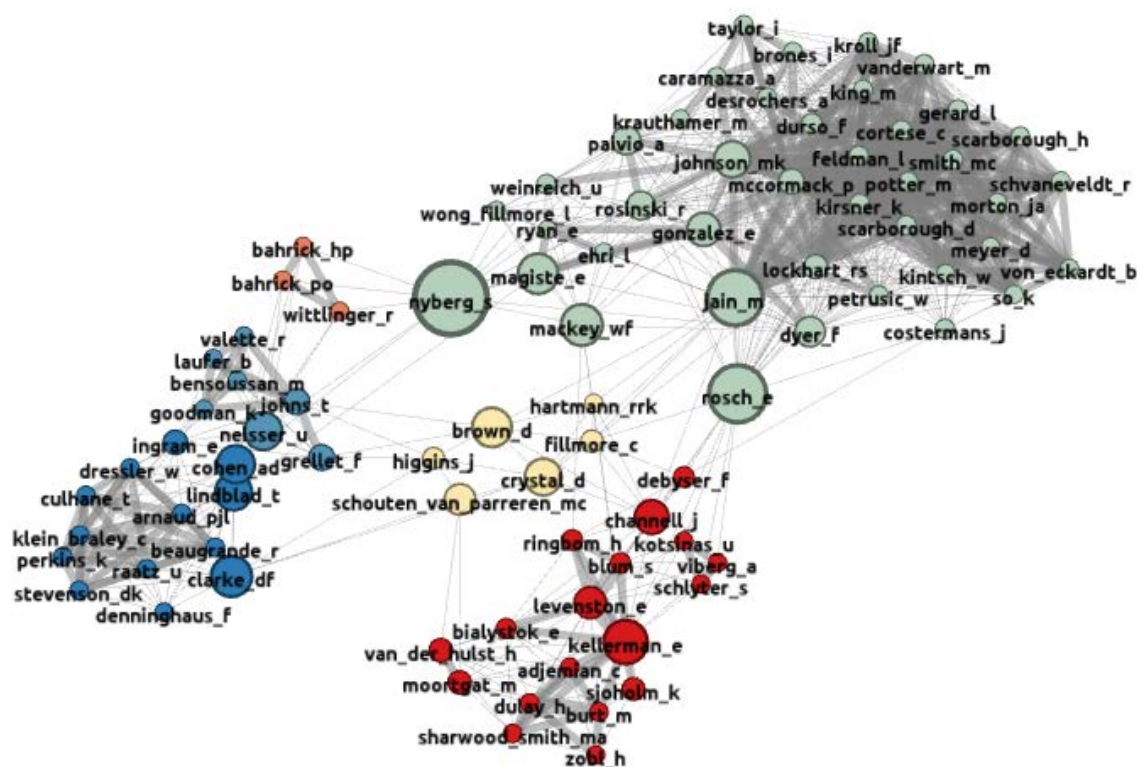


Figure 5: The new sources in the 1984 dataset

A new theme which emerges from the 1984 analysis is *long-term retention and attrition* of L2 vocabulary. This small cluster containing (Bahrick, Bahrick and Wittlinger) is particularly interesting because it represents a genuinely new departure from anything that appeared in 1983 or previously. For these studies, Bahrick used an innovative cross-sectional methodology that he had previously used with Wittlinger to study how people forget the connection between names and faces. The application of this methodology to L2 attrition is

interesting partly because cross-sectional methodologies do not play a large role in the research of the time, and when they *are* used, “cross-sectional” generally means only three or four cohorts of subjects whose ages vary by one or two years. Bahrck’s approach – working with large numbers of subjects whose experience of forgetting an L2 varied between a few years and fifty years – was a genuine innovation in L2 vocabulary research, and it drew attention to the experiences of a group of older subjects who do not typically figure in the research of the time.

The central cluster in Figure 5 also deserves some comment. This cluster, like the transfer cluster, is composed mainly of Europeans – the only North American is Charles Fillmore, whose semantic frameworks model of syntax prioritised lexical issues in a way that was unusual in mainstream linguistics at the time. (Significantly perhaps, Fillmore spent a period of sabbatical leave at the Edinburgh University in the late 1970s, and this may have made European researchers more aware of his work.) Hartmann’s work is mainly concerned with dictionaries: the kind of support dictionaries supply to learners and the way that learners use them. 1983 had seen a small flurry of papers dealing with this topic, and the appearance of Hartmann in the 1984 map is the first sign of this work emerging as a theme that will become important in future L2 vocabulary work. Schouten-van Parreren was probably the most prolific writer on L2 vocabulary acquisition in the period 1975-1982. Her early work was mainly published in Dutch, however, and was not readily available to English speaking researchers, making her work was much less influential than it deserved to be. Here, she is cited for her work on how L2 learners guess the meaning of unknown words (Van Parreren and Schouten van Parreren 1981), a theme which runs through most of her experimental work. Much of Schouten-van Parreren’s work is based on the idea of *Action Psychology* – a branch of Soviet psychology, particularly associated with Leontiev and Vygotsky. It provided some very original insights into the ways learners acquire vocabularies, and might have acted as an interesting alternative to the more mechanistic themes that were emerging in the Anglo-Saxon tradition at this time. (cf. Schouten-van Parreren and van Parreren 1979, Schouten-van Parreren 1985.)

## 5. Conclusion

To summarise, then, the 1984 data set does not yet present us with a radical departure from the earlier research in vocabulary acquisition. The research done by the psychologists and psycholinguists, characterised by its strong internal coherence, still outweighs the research carried out by the linguists. The number of psychologists who are new entrants the top most-cited authors list suggests that this characteristic is one that is deeply entrenched in the data, and there is no sign of linguists and psychologists coming together to work on common problems. There are some indications that new research interests (notably dictionaries and attrition) **are** emerging, but for the moment these appear to be minority interests. The large number of small clusters in our maps suggests that vocabulary research continues to be focussed on specific topics, rather than on general theories. The small number of “survivors” – people whose research is influential in 1984 as well as in the immediately previous years –

suggests that vocabulary research is nowhere near a mature state of development. It remains to be seen whether the relatively large number of new names appearing in the most cited authors list, and whether the new ideas that these names represent will push vocabulary research into new directions in the years to follow. We will explore this idea in our next paper.

## References

- Bastian, M., S. Heymann, and M. Jacomy. 2009. *Gephi: an open source software for exploring and manipulating networks*. International AAAI Conference on Weblogs and Social Media.
- Covington, M.A. 1981. Review of T Hoekstra, H van der Hulst and M Moortgat (eds.), *Lexical Grammar*. Dordrecht: Foris. *Language* 59(2): 402-406.
- Kolers, P., and M. Paradis. 1980. Introduction to a special issue on psychological and linguistic studies of bilingualism. *Canadian Journal of Psychology* 34: 287-303.
- Kucera, H., and W.N. Francis. 1967. *A computational analysis of present-day American English*. Providence, RI: Brown University Press.
- Lyons, J. 1968. *Introduction to General Linguistics*. Cambridge: Cambridge University Press.
- Meara, P.M. 2012. The bibliometrics of vocabulary acquisition: An exploratory study. *RELC Journal* 43(1): 7-22.
- Meara, P.M. 2014. Life before Nation: Bibliometrics and L2 vocabulary studies in 1982. In M. Gómez González, F.J. Ruiz de Mendoza Ibañez, F. González García, and A. Downing. *The Functional Perspective on Language and Discourse: Applications and implications*, 111-129. Amsterdam: John Benjamins.
- Meara, P.M. 2015. Vocabulary research in 1983: A bibliometric analysis. *Linguistics Beyond and Within* 1(1): 187-198.
- Meara, P.M. VARGA: the Vocabulary Acquisition Research Group Archive <http://www.lognostics.co.uk/varga/>.
- Price, D. 1965. Networks of scientific papers. *Science* 149(3683): 510-515.
- Small, H. 1973. Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, 24: 265-269.
- van Parreren, C.F., and M.C. Schouten-van Parreren. 1981. Contextual guessing: a trainable reader strategy. *System* 9(3): 235-241.
- White, H.D., and B.C. Griffith. 1981. Author cocitation: A literature measure of intellectual structure. *Journal of the American Society for Information Science* 32: 163-171.
- Schouten-van Parreren, C. 1985. *Woorden Leren in het vreemde-talenonderwijs*. [Teaching Vocabulary in a foreign language.] Apeldoorn: Van Walraven b.v.
- Schouten-van Parreren, C., and C.F. van Parreren. 1979. De verwerving van een vreemdtalige woordenschat: een literatuurstudie. [The acquisition of a foreign language vocabulary: a review of the literature.] *Levende Talen* 341: 259-270.



# Prosodic organization of English folk riddles and the mechanism of their decoding

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## Abstract

The paper advances a cognitive model representing a creative mechanism of riddle decoding by its recipient, which serves as a theoretical and methodological ground for the experimental phonetic study of prosodic means that organize the text of a riddle. Within the process of cognitive model formation the author performs a conceptual analysis of the riddle compositional structure, presented as a systemic algorithmic scheme. It is confirmed that a characteristic feature of a folk riddle is its division into two elements: the first one is the description of an object, further differentiated into “topic” and “commentary”, while the second one is the riddle answer, or solution, generated directly in the recipient’s mind as a result of his/her mental activities. The carried out auditory analysis proves that such a limitation of the riddle’s structure is compensated by a set of prosodic means and their specific interaction, which trigger creative and cognitive processes in the recipient’s mind aimed at searching for the riddle solution.

**Keywords:** English folk riddle, structural elements, scheme, decoding, cognitive model, creative mechanism, prosodic means, recipient

## 1. Introduction

The results of our previous studies (Taranenko 2013: 168) confirmed that a characteristic feature of a folk riddle is its clear division into two parts, reproduced by different individuals. The first part is the content of a riddle, which contains a description of the object, while the second one is the riddle answer, or solution, formed directly in the recipient’s mind as a result of his/her mental activities. It was assumed that such a limitation of the riddle’s structure should be compensated by prosodic means’ interaction, which triggers creative and cognitive processes in the recipient’s mind aimed at searching for the riddle solution.

Considering these ideas, in the present paper we have undertaken a substantiation of a cognitive model representing a creative mechanism of a riddle decoding, which serves as a theoretical and methodological ground for the experimental phonetic study of the prosodic means that organize the text of a riddle.

To solve the outlined problems we have chosen the following sequence of methodological actions. It was rational within the first step to come up with a certain systemic scheme, or a pattern of the riddle structural components. The second step presupposed the formation of a cognitive model, representing a creative mechanism of riddle decoding by a recipient. Within the third step, on the basis of auditory analysis of English folk riddles, we described the characteristics of their prosodic organization that influence the recipient's search for the riddle solution as well as substantiated invariant prosodic features typical of the riddle structural elements.

## **2. Theoretical and methodological background of the research**

### ***2.1. Defining the characteristic features of the riddle as a folk genre***

The analysis of theoretical sources has shown that researchers come across certain contradictions while giving an explicit definition of the genre of a riddle. The earliest explanation of the riddle as a metaphor is related to the work of Aristotle (2000: 117), who was probably the first to define the riddle. In the classical tradition scholars largely follow the definition proposed by G. Paris, who designated the riddle as a metaphor or a group of metaphors, which are not typical of everyday use and whose explanation is not obvious (Tupper 1910: xiii).

It is believed that the greatest contribution to the study of riddle was made by Taylor (1943), who offered a classification of English folk riddles and defined the riddle as the one that compares two completely different objects (Georges and Dundes 1963: 111). In this regard, some researchers attribute the origin of riddles to the "conventionally codified speech" (Anikin 1957: 56), or secret speech, used to represent the world as certain concepts and images when people were unable to speak openly (Panasenکو 2009: 382).

Throughout the time the riddle was considered by folklorists from different standpoints, including the study of its evolution as a genre (Kaivola-Bregenhøj and du Bois 2001), its correlation with other small form folklore texts (Abrahams 1968, Dundes 1975, Kaivola-Bregenhøj and du Bois 2001, Green and Pepicello 1986, de Caro 1986, Permyakov 1975: 260), the emergence of riddle as a result of transformation of ancient mythological texts (Ivanov and Toporov 1975: 70), the difference between folk and literary riddles (Tupper 1910: xvi-xviii, Taylor 1943), etc. Within a linguistic approach the attention was given to the study of the riddle structure (Georges and Dundes 1963), its formal (Taylor 1943) and functional features (Permyakov 1975: 254-257, de Caro 1986) as well as to the language means of its organization (Beuchat 1965: 196-202, Green and Pepicello 1980, Köngäs-Maranda 1971, Köngäs-Maranda 1971b) and cognitive mechanisms of the riddle denotation (Selivanova 2005).

Unfortunately, among the scholars there is no unanimous agreement on the status of a riddle as a folk genre. The debates unfold around the ideas whether this status should be based on the structural elements of the riddle or its functions, the sphere of usage or speech context in which it appears, etc. Thus, in terms of its semantic plane the riddle is defined as a

text, whose denotative element is represented by a particular object, not named in the text of a riddle (Levin 1973: 166). Within a pragmatic description the riddle is viewed as a genre that has the “question-answer” structure and a multifunctional communicative use as well as combines in itself features of both an utterance and a text. Besides, it is noted that the leading cognitive-pragmatic functions of a riddle are logical and image-creative ones, i.e. the formation in the speakers’ minds of logical clichés filled with images from the traditional culture in their “metaphorically creative” role (Semenenko 2011: 134). In other works (Fylyppov 2000: 2) the riddle is considered as a specific discursive formation or as a standardized dialogue represented according to definite rules and principles.

Another idea, interesting for our consideration, was expressed in the paper (Kaivola-Bregenhøj and du Bois 2001: 165), where the authors point to the necessity of creating an international index of riddles, similar to the known index of fairy tales (Aarne 1961, Thompson 1955). We believe that the solution of this issue can contribute to our search for a comprehensive unified system of functional and structural characteristics of all small form folk texts.

The consideration of functional features of the text of a riddle can be based on Lotman’s postulate (1992: 150) that within the culture, texts perform two main functions: an adequate transmission of meanings and generation of new meanings. In terms of a riddle the majority of scholars indisputably recognize a didactic function as its primary sociocultural goal (Alefyrenko and Semenenko 2010: 178, Semenenko 2011: 132, Gimbutas 2004: 11). At the same time, there is no doubt as to the multifunctional nature of a folk riddle, quite explicitly overviewed in the paper (Semenenko 2011: 130-133), where the author named the following functions of a riddle: cognitive, modelling, image-creative, image-regulatory, ritual, entertaining, and others. Even though the description of riddle functions, presented in this paper, is not, in our opinion, logically structured, it gives us a sufficient terminological material for the clarification of the nature of the riddle communicative sub-functions, participating in the realization of its general didactic function.

Thus, as a result of the carried out analysis we can inevitably come to the conclusion that the system of riddle functions acquires the following hierarchical subordination: general didactic function → creative-and-instructive pragmatic orientation → entertaining-and-training function.

Considering this, we can formulate a generalized definition of the riddle as a genre. We define *the riddle as a specific folk genre, whose text, having a creative-and-instructive pragmatic orientation, performs an entertaining-and-training functional role, realized on the basis of an associative-and-creative mechanism of reconsideration of knowledge, existing in the recipient’s mind.*

This definition as well as a hierarchical system of the riddle functional characteristics will serve as a theoretical basis for accomplishing an adequate scientific description of prosodic means’ interaction in the riddle actualization.

## 2.2. Results of the conceptual analysis of the riddle compositional structure

The circle of issues comprising the problem of the riddle prosodic organization as a complex phenomenon of oral folklore also includes the study of the riddle structural composition. The solution of this issue was realized by means of the content analysis of the riddle plot elements and formation of its typical algorithmic structural pattern.

According to a number of linguists (Georges and Dundes 1963: 111, Abrahams and Dundes 1982: 130), the most comprehensive description of the riddle structural organization is contained in the work by Petsch (1899), who distinguished its five elements: 1) introductory frame element; 2) denominative kernel element; 3) descriptive kernel element; 4) block element; and 5) concluding frame element. The author himself admits that riddles containing all five elements are extremely rare, and remarks that one or both of the frame elements are usually absent. He also observes that the block element is absent even more often. Therefore, we tend to share the views expressed by Georges and Dundes (1963: 111) that the mentioned structural composition of a riddle cannot be widely applied. We also support their statements (*ibid.*: 113) that only two of Petsch's five elements are structural ones – the descriptive kernel element and the block element, while the opening and closing elements, or formulas, are rather stylistic devices whose presence is optional and does not affect the overall structure of the riddle.

There is also a famous view on the riddle structure by Taylor (1943: 130), who proposed the division of its structure into two descriptive elements (one positive and one negative), which constitute “the essential structure of the riddle”. According to Taylor, the positive element has a metaphorical nature in terms of the answer and is perceived by the listener in a literal sense. In contrast, the negative descriptive element is correctly interpreted literally. Thus, in the following example given by Taylor (1951: 94) “Something has eyes and cannot see” (Irish potatoes), the positive descriptive element “eyes” is metaphorical in terms of the answer “potato”, while the negative descriptive element “cannot see” is literal. According to the author, the riddle solution is implied by the details of the positive descriptive element, whose interpretation misleads the listener because of his/her wrong perception of the figurative description as a literal one. This allowed Taylor to define the riddle as the one consisting of two descriptions of an object: one literal and one figurative, which confuses the recipient “who endeavors to identify an object described in conflicting ways” (Taylor 1943: 130).

At the same time, some scholars (Georges and Dundes 1963: 112, Eugenio 1982: xxiv) indicated certain ambiguity and inconsistency of the stated above point of view on the riddle structure since it does not apply to many of the texts in the most comprehensive collection of English riddles (Taylor 1951). To support this statement Georges and Dundes provide examples of riddles, having:

1. neither positive nor negative descriptive element: “*My fader have a horse, Go everywhere he like*” (*pumpkin vine*) (Taylor 1951: 142); “*What goes all down street and comes back home, and sits in the corner and waits for a bone?*” (*shoe*) (*ibid.*: 151);
2. no metaphors, consisting only of a literal description: *What live in de river?* (*fish*) (*ibid.*: 40); *Red outside / white inside* (*apple*) (*ibid.*: 625);

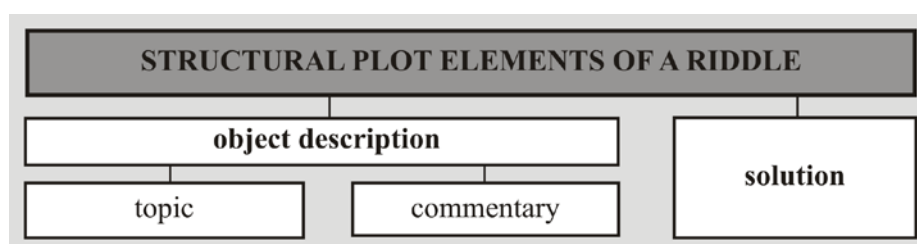
3. both positive and negative elements, but the positive element is not metaphorical, e.g.: *What goes to the branch and drinks and don't drink? (cow and bell)* (*ibid.*: 85);
4. both positive and negative elements are metaphorical, e.g.: *I know something got hand and don't wash its face (clock)* (*ibid.*: 98).

Considering this, Georges and Dundes make a rational conclusion that “the best way to arrive at a definition of the riddle is through structural analysis, since definitions, based on content and style, have proved to be inadequate” (Georges and Dundes 1963: 113). Therefore, they believe it appropriate to delineate, first of all, a minimum unit of the riddle structural analysis. Following the ideas expressed by Petsch (1899) and Taylor (1943: 130), they use the term “the descriptive element” that consists of “a topic” and “a comment”. “The topic” is the apparent referent, i.e. the object or item which is allegedly described in the riddle. “The comment” gives the additional information about the topic, mostly about its form, function or action of the topic, etc. Proceeding from these ideas, the authors propose a general structural definition of the riddle as “a traditional verbal expression that contains one or more descriptive elements, a pair of which may be in opposition; the referent of the elements is to be guessed” (Georges and Dundes 1963: 113). The views presented in this and other works (Abrahams 1968: 151, de Caro, 1986: 177, Green and Pepicello 1979: 18) are important for our analysis since they allow us to consider the riddle as the text composed of one or more descriptive elements, which comprise “the topic”, or referent, and “the commentary”.

In other words, the results of the carried out analysis of theoretical and practical papers give us sufficient grounds to view the so-called descriptive element as a structural component of a folk riddle, consisting of two plot elements termed, respectively, “the topic” and “the commentary”, being the members of the second hierarchical level of the riddle composition.

We must also pay attention to another feature of the riddle structure, repeatedly indicated by a number of scholars (Green and Pepicello 1979: 15, Köngäs-Maranda 1971b: 54). This structural component of a riddle directly relates to the recipient's thinking activities. It is the riddle answer, or solution, defined as its specific structural element occurring in the listener's mind. Therefore, taking into account the suggested idea about the riddle's division into two parts reproduced by different people as its distinctive feature, within the framework of the undertaken description of the riddle structure we come to the necessity to consider the riddle solution as its indispensable structural component.

Thus, on the basis of the performed analysis we have synthesized a generalized scheme of the folk riddle structure and its plot elements, presented in Fig. 1.



**Figure 1:** A generalized scheme of a riddle structure according to its plot elements

The summarized scheme of the structural composition of English folk riddles allows us to use it as a logical guide for a further substantiation of the cognitive model representing a creative mechanism of riddle decoding by the recipient as well as for the auditory analysis of English folk riddles' prosodic organization.

### **3. The analysis of a cognitive mechanism of a riddle decoding**

As it was shown above, a characteristic feature of a riddle is its division into two parts, reproduced by different individuals: the riddle content and its solution that occurs in the recipient's mind as a result of his/her mental activities. Therefore, it seems expedient to search for a cognitive model, representing a creative mechanism of riddle decoding, in direct correlation with the riddle structural composition.

We shall begin the study of this issue with an interesting idea suggested by de Caro (1986: 177-178) that a structural analysis can identify basic elements constituting the riddle as a whole and determine the way they relate to each other. He emphasized that the study of a riddle is not the matter of the analysis of its surface elements. The researcher has to consider the deeper levels of the text of a riddle and carefully examine examples of riddles, while making abstract generalization.

This proves an objective necessity of defining deep cognitive structures of the recipient's creative thinking activities, which under the influence of the riddle metaphoric content and its prosodic organization get involved into the riddle decoding. This idea is supported by a number of scholars (Boryslawski 2004: 24, Tucker 2011: 140) who also state that the world picture represented in the riddle answer, or solution, should coincide with the one encoded in the text of a riddle.

Taking into account the fact that the riddle contains an allusion and a metaphoric world representation to be decoded by the recipient (Sedakova and Tolstoy 1999: 233), it is not difficult to presume the complexity of the processes occurring in the recipient's mind.

To understand the specificity of a cognitive creative mechanism functioning in the recipient's mind it is important to be aware of the discursive nature of the riddle, inherent in its structure, which presupposes a dialogue, or communicative interaction (Butov 2011: 129). This once again demonstrates the feasibility of the chosen methodological approach aimed at substantiating the model of the riddle decoding by the recipient.

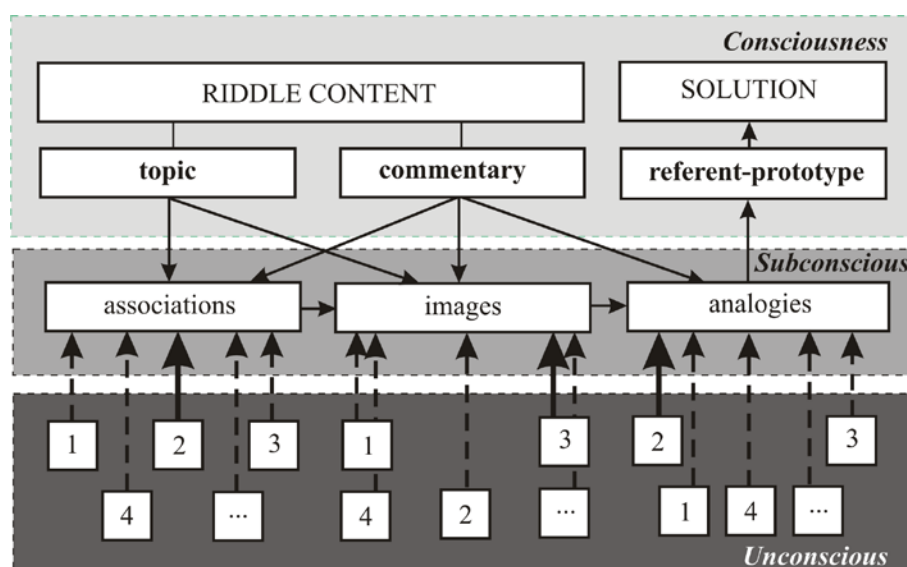
Herewith we would like to point to the methodology for the conceptual modelling of the riddle denotate, advanced by Selivanova (2000: 109-152). This methodology is grounded on the maxim that the mechanisms of human consciousness activities are triggered as a result of receiving information from the outer world. In view of this, the author emphasizes that the search for a riddle solution is a complex procedure that involves a psycho-cognitive mechanism, based on the riddle semiotic structure and the recipient's knowledge of the denotate, or referent. This mechanism comprises the interpretation of literal information stated in the riddle, reinterpretation of the riddle metaphorical scenarios from the standpoint of cultural stereotypes and archetypes, and processing of information underlying a paradoxical syntactic structure of a riddle (Selivanova 2005: 360).

As methodological grounds for our modelling of the cognitive mechanism we also used the conceptual idea, put forward by Klimenjuk (2010: 205-234), that the recipient's speaking and thinking activities occur on four levels of his/her spiritual being: consciousness as well as transcendental, mental and existential spheres. Besides, according to Klimenjuk (*ibid.*: 225), thinking activities are understood as a set of interrelated processes of a poly-conceptual self-developing emotional chaos, whose structuring and results of development are governed by a bi-conceptual consciousness. We also considered Z. Freud's postulate that transcendental and mental beings of a person unfold in the subconscious sphere, while existential being takes place in the unconscious one.

Therefore, in the further explanation of the model we used the following understanding (*ibid.*: 207) of basic notions and ideas. We understand the term "existential" as everything that relates to the unique originality within the human being, the person's feeling of belonging to the highest being, and which cannot be expressed in verbal concepts. We also believe that the existential life, which takes place in the unconscious sphere, is based on the emotional type of thinking and is mainly excited by prosodic means of the utterance. The occurrence of existential processes should be treated as the emotional type of thinking.

- The term "mental" refers to the result of the interaction between deep levels of a collective and individual consciousness, which determine the way of the individual's thinking and feelings, based on the unconscious regulations, as well as on the person's emotional and behavioral skills acquired due to perception and cognition of the outer world. We are to remark here that the human being's mental life, which unfolds in his/her subconscious, is based on the emo-rational type of thinking.
- The term "transcendent" denotes an act, process, or any product of the person's thinking about the fullness of his/her life or its individual characteristics that are considered inaccessible by direct knowledge, though can be perceived speculatively and expressed by abstract concepts. We shall follow the idea that the transcendent human existence, which takes place in his/her subconscious sphere, is based on the rational type of thinking.
- Thus, it becomes clear that within the human subconscious there occur mental and transcendental acts, whose common feature is the presence of elements of the rational type of thinking. Secondly, the motive power that generates the self-development of all thinking acts and processes, occurring in the individual's consciousness, is the psychophysiological energy of his/her personality. Thirdly, the human consciousness cannot control processes taking place in the human being's existential sphere. However, the consciousness can partially control the overall flow of mental and transcendent processes and thoroughly control the results of the joint activities of all the spheres of the individual's unconscious and subconscious beings. Fourthly, as it is also stated in the work by Klimenjuk (2010: 220), while modelling the cognitive processes of the riddle decoding it is efficient to confine ourselves to the use of the notions "emotional", "emo-rational", "rational", and "logical" concepts, determined by differences in the nature of their generation in the mentioned above spiritual spheres of human existence.

These theoretical foundations made it possible to form a cognitive-and-creative model, representing a mechanism of riddle decoding by the recipient, whose graphical interpretation is shown in Fig. 2.



**Figure 2:** A cognitive-and-creative model of riddle decoding by the recipient

As it is seen from the scheme, the recipient's consciousness perceives all the substantiated above structural elements of the riddle (see. Fig. 1): topic → commentary → referent-prototype.

Taking into consideration the mentioned ideas and postulates as well as the graphical image of the model, we can present the process of the recipient's riddle decoding as the sequence of the following steps. We presume, first of all, that the content of a riddle, being broadcast by the recipient's brain into the subconscious, stimulates a cognitive associative mechanism of his/her thinking. Under such conditions, there occurs the reinterpretation of a riddle as a complex concept that exists in the recipient's consciousness and is embodied in language units which are transformed by his psychophysiological energy into different by their nature units (associations, images, analogies).

The driving force of the mechanism realizing cognitive associative processes as a set of thinking acts is the psychic energy of the recipient's unconscious, which sends into his/her subconscious sphere the competing energy flows inherent to emotional concepts (marked in Fig. 2 as 1, 2, 3, 4...), excited by the riddle content.

Because of this emotional-and-energetic conflict, the energetically most powerful emotional concept (pointed in Fig. 2 by a highlighted arrow) acquires the status of a basic element of the association. Being fixed by the individual's consciousness, this association serves as an additional semantic element that triggers the search for a suitable image in the recipient's mental sphere.

The image, formed as a result of the mentioned process, carries a hypothetical intuitive information that triggers the final mental operation in the search for a riddle solution – the search for analogies. As a result, the most powerful concept, rising to the level of the subconscious, serves as a basis for the emergence of analogy, according to which the referent





The presence of the mentioned prosodic means within the structural element “the topic” contributes, as a rule, to attracting the listener’s attention to those features of a described object, which will contrast to its characteristics, given in the structural element “the commentary” and will serve as a key for the creation of the metaphorical image in the listener’s mind, necessary to continue search for associations and analogies of the riddle solution.

Prosodic organization of “the commentary” differs from “the topic” since it contains the rheme of a riddle and, consequently, is marked by emphatic prosodic means aimed at the rheme intensification. Besides, the use of emphatic prosodic parameters is conditioned by the function of “the commentary”, which is to highlight specific features of the described object or give additional information about it. In other words, prosodic organization of “the commentary” serves to intensify those lexical units which are to excite in the recipient’s psyche images and associations as well as trigger the search for analogies in the process of riddle decoding.

Thus, the typical features of “the commentary” prosodic organization include: (1) the combination of two falling kinetic tones of different pitch within a single intonation group, e.g.: ...and \wasn’t a \beast... (ibid.: 97); And I’m the \torment of \man (ibid.: 106), the higher of which serves to highlight a specific feature of a described object, marked by the low falling tone; (2) the use of emphatic heads: sliding and stepping broken heads, e.g.:<sup>1</sup> Couldn’t \put ↑Humpty Dumpty § together again || (ibid.: 104), <sup>1</sup>One ↑hundred \teeth | and \never a \mouth || (ibid.: 104), whose function in riddles, unlike narrative folk texts, is not to eliminate the speech monotony, but intensify key lexical units which are to launch the image search in the recipient’s psychic sphere as a basis of the referent prototype. A similar function is performed by high falling terminal tones in adjacent intonation groups, the latter having a slower rate of its movement, e.g.: \Love to \fall § but \cannot \climb || (ibid.: 94); In\side the \cave § her \anchor \drops || (ibid.: 102).

Differential features of “the commentary” prosodic organization comprise the slowed down tempo of its final intonation group and perceptual pauses (⊘) that emphasize the rhematic element of a riddle, for example:

- (1) When \one \*does \not \know § \what it \is, | then it is \something; | but \when \*one \knows \what it \is, § \then ⊘ it is \nothing || (ibid.: 102);
- (2) \Lives in \winter, § \dies in \summer, | and \grows with its \roots ⊘ \upwards || (ibid.: 99).

The rhematic element of the riddle can also be highlighted by the preceding tone interval, as in the example: ...and \when he \*finds \water, | -he \perishes || (ibid.: 102), where the word \perishes is intensified by means of a negative mid tone interval at the juncture of a pre-terminal part and a nucleus.

Given the fact that an oral actualization of the riddle as a genre presupposes engaging the recipient into creative thinking processes aimed at enhancing in the entertaining form his/her cognitive abilities, the speaker usually tries to produce the riddle in an “enigmatic” voice coloring to which the listener responds in the first place. The auditory analysis has shown that

such a coloring of voice is characteristic of the final intonation group of “the commentary” which is qualified as a pragmatically most important component of the text of a riddle. So there is every reason to conclude that riddle’s pragmatic potential is constantly growing, reaching its maximal mid-high level within the final intonation group. In the following example of the final intonation group of “the commentary” ...*\What is it?* || (*ibid.*: 105) the pragmatic loading is increasing due to the combination of its “enigmatic’ voice coloring, the use of a high falling tone of a wide range (*\What...*) and a negative mid tone interval at the juncture “nucleus-tail”. It was also defined that timbre can acquire a leading role in highlighting the final intonation group of a riddle in cases when it is combined with the slowed-down tempo and a low falling terminal tone with a reduced rate of its movement, e.g.: *The \foot \trod on it | and the \mouth enjoyed it* || (*ibid.*: 107). The outlined interaction of prosodic parameters should be viewed as the subliminal means of involving the listener into the process of riddle decoding.

The auditory analysis also allowed us to conclude that the riddle’s structural elements are singled out, as a rule, with the help of a medium-length pause while the intonation groups occurring within these elements are separated by a short pause, e.g.:

*\Cut me \*up in \pieces § and \bury me a \live, |*  
*The \young \*ones will \live § and the \old \*ones \die* || (*ibid.*: 93).

Apparently, the presence of short pauses between intonation groups that are used within structural elements and medium-length pauses at their junctures is the invariant feature of English folk riddles’ prosodic actualization.

Prosodic organization of a riddle has also differential features which are the result of the speaker’s appraisal of the riddle referent, which causes a corresponding change in his/her emotional state while pronouncing the riddle out loud. The following riddle about the coffin as its referent can serve as an example:

*The \man who \made it § did \not \want it; |*  
*The \man who \bought it § did \not \use it; |*  
*The \man who \used it § did \not \know it* || (coffin) (Bryant 2007: 104).

The emotional component of this example, generated by the ethical appraisal of the described referent as well as the corresponding change in the speaker’s emotional state, is realized by the speaker’s use of a parallel intonation patterns of both structural elements, alternation of falling tones’ pitch of all verbs of the riddle, the use of a negative tone interval at the juncture “nucleus-tail” (e.g.: *\bought it*). Such prosodic specificity serves to attract the recipient’s attention to each verb, thus increasing the riddle pragmatic loading.

The negative ethical evaluation of the riddle referent can be enhanced by segmental means against the background of intonational parallelism of adjacent intonation groups, in particular by alliteration, assonance, and repetition of sound combinations, for example:

*\Brass \cap § and \wooden \head, |*  
*\Spits \fire § and \spews \lead* || (gun) (*ibid.*: 98).

In this example, the metaphorical image of a gun is created, along with the described above specific intonation, by the repetition of sound combinations *br-*, *sp-* which are traditionally viewed as unpleasant ones or as those which produce a negative aesthetic impact on the listener.

We believe that the appearance within the riddle of similar or identical sounds and sound combinations enhances the semantic loading of some lexical units, thus inducing the appearance in the recipient's mind of corresponding associations related to the general emotional tone of the riddle. Thus, we can conclude that the interaction of segmental and suprasegmental means organizing the riddle is caused by a definite semantics of its referent, which, in its turn, can help the recipient find a correct riddle solution.

The results of the conducted auditory analysis showed that the invariant prosodic pattern of the riddle oral actualization, which ensures the excitement of the recipient's creative associative mechanism of the search for its answer, comprises the following parameters of intonation: division of the text into short intonation groups, the use of rising pre-heads, checked or broken descending stepping heads, falling tones, wave-like pitch contour, regular rhythm, short pauses within structural elements and mid ones at their junctures. Invariant features of the riddle also include an emphatic prosodic organization of its final intonation group, which, being the riddle's semantic and pragmatic center, performs a subliminal function and excites the recipient's imagination and stimulates him/her to find the riddle answer.

## 5. Conclusions

The advanced in the paper methodological guidelines and the results of the auditory analysis of English folk riddles allowed us to outline characteristic features of their prosodic organization as well as substantiate invariant and differential prosodic means typical of the riddle structural elements.

The suggested model of a cognitive creative mechanism of riddle decoding proves that the content of a riddle, being broadcast by the recipient's brain into the subconscious, stimulates a cognitive associative mechanism of his/her thinking that comprises the reinterpretation of a riddle as a complex concept embodied in language units which are transformed by the recipient's psychophysiological energy into associations, images, and analogies as the bases of the riddle referent-prototype.

The carried out auditory analysis of English folk riddles confirmed that the riddle prosodic organization aims at highlighting those lexical units which realize a subliminal influence on the recipient's subconscious providing the stimulus for his/her search for images, associations and analogies in the process of riddle solution decoding.

We believe that the suggested approach to modelling a cognitive creative mechanism of a riddle decoding and the analysis of prosodic specificity of its oral actualization can serve as methodological guidelines for further studies of speech decoding phenomena.

## References

- Aarne, A. 1961. *The Types of the Folktale: a Classification and Bibliography*. Translated and enlarged by S. Thompson. Helsinki: Academia Scientiarum Fennica.
- Abrahams, R.D. 1968. Introductory Remarks to a Rhetorical Theory of Folklore. *The Journal of American Folklore* 81, 320: 143-158.
- Abrahams, R.D., and A. Dundes. 1982. Riddles. In R.M. Dorson (ed.), *Folklore and Folklife: An Introduction*, 129-143. Chicago: University of Chicago Press.
- Alefirenko, N.F., and N.N. Semenenko. 2010. "Znachenie i smysl russkih paremij v svete kognitivnoj pragmatiki" ["The meaning and sense of Russian proverbs and sayings in the light of cognitive pragmatics"] *Izvestija Ural'skogo gosudarstvennogo universiteta. Serija 1: Problemy obrazovanija, nauki i kul'tury* [Newsletter of Ural State university. Series 1: The problems of education, science, and culture] 6(85): 169-180. (in Russian)
- Anikin, V. 1957. *Russkie narodnye poslovice, pogovorki, zagadki i detskij fol'klor* [Russian folk proverbs, sayings, riddles and children folklore]. Moscow: Uchpedgiz. (in Russian)
- Aristotle, 2000. *Ritorika. Pojetika* [Rhetoric. Poetics]. Moscow: Labirint. (in Russian)
- Beuchat, P.D. 1965. Riddles in Bantu. In A. Dundes (ed.), *The study of Folklore*, 182-215. Englewood Cliffs: Prentice-Hall.
- Boryslawski, R. 2004. *The Old English Riddles and the Riddle Elements of Old English Poetry*. Frankfurt am Main, Berlin, Bern, Wien: Lang.
- Bryant, M. 2007. *Riddles Ancient and Modern*. London: Hutchinson.
- Butov, O.V. 2011. Problema definicii' zagadky [The problem of the riddle definition]. *Visnyk Cherkas'kogo universytetu. Serija: Filologichni nauky* [Messenger of Cherkassy university. Series: Philological studies] 213: 125-130. (in Ukrainian)
- Caro de, F.A. 1986. Riddles and Proverbs. In E. Oring (ed.), *Folk Groups and Folklore Genres: An introduction*, 175-197. Logan: Utah State University Press.
- Dundes, A. 1975. On the Structure of the Proverb. In A. Dundes (ed.), *Analytic essays in folklore*, 103-118. The Hague: Mouton.
- Eugenio, D.L. 1982. *Philippine Folk Literature: An Anthology. Philippine Folk Literature Series*. Diliman, Quezon City: Folklore Studies Program, College of Arts & Sciences, University of the Philippines, The U.P. Folklorists, Inc.
- Fylyppov, V.S. 2000. *Kommunikativnaja priroda zagadki* [The riddle communicative nature]. PhD diss., Orol University, Russia. (in Russian)
- Georges, R., and A. Dundes. 1963. Toward a Structural Definition of the Riddle. *The Journal of American Folklore* 76, 300: 111-118.
- Gimbutas, Ž. 2004. *The Riddle in the Poem*. Lanham, Maryland: University Press of America.
- Green, T., and W.J. Pepicello. 1979. The Folk Riddle: A Redefinition of Terms. *Western Folklore*. 38(1): 3-20.
- Green, T., and W.J. Pepicello. 1980. Sight and Spelling Riddles. *Journal of American Folklore* 93, 367: 23-34.
- Green, T., and W.J. Pepicello. 1986. The Proverb and Riddle as Folk Enthymemes. *Proverbium* 3: 33-45.
- Ivanov, V.V., and V.N. Toporov. 1975. Invariant i transformacii v mifologicheskikh i fol'klornyh tekstah [Invariant and transformations in mythological and folklore texts]. In E.M. Meletinskij, and S. Ju. Nekljudov (eds.), *Tipologicheskie issledovanija po fol'kloru: [sb. st. pamjati Vladimira Jakovlevicha Proppa (1895-1970)]* [Typological studies of folklore: collection of papers in memory of Vladimir Propp (1895-1970)], 44-76. Moscow: Nauka. (in Russian)
- Kaivola-Bregenhøj, A., and Th. du Bois. 2001. *Riddles: Perspectives on the Use, Function and Change in a Folklore Genre*. Helsinki: Finnish Literature Society.
- Klimenjuk, A. 2010. *Znanije, poznanije, kognitsija* [Knowledge, learning, cognition]. Ternopol: Textbooks. (in Russian)
- Köngäs-Maranda, E. 1971. The Logic of Riddles. In *Structural Analysis of Oral Tradition*, 189-232. Philadelphia: University of Pennsylvania Press.
- Köngäs-Maranda, E. 1971b. Theory and Practice of Riddle Analysis. *The Journal of American Folklore*. 84, 331: 51-61.

- Levin, Ju.I. 1973. Semanticheskaja struktura russkoj zagadki [Semantic structure of the Russian riddle]. *Uchenye zapiski Tartuskogo gosudarstvennogo universiteta. Trudy po znakovym sistemam VI: sb. nauch. statej v chest' Mihaila Mihajlovicha Bahtina (k 75-letiju so dnja rozhdenija)* [Scientific notes of Tartu state university. Papers on semiotic systems VI: collection of papers to honor Michael Bakhtin (to his 75<sup>th</sup> birthday)] 306: 166-190. (in Russian)
- Lotman, J. 1992. *Izbrannye stat'i v 3 t. Stat'i po semiotike i tipologii kul'tury* [Selected works in 3 volumes. Papers in semiotics and typology of culture. Vol. 1]. Tallinn: Aleksandra press. (in Russian)
- Panasenko, T. 2009. Kroskul'turni zv'jazky zagadok riznyh narodiv [Cross-cultural connections of different peoples' riddles]. *Naukovi zapysky Kirovograds'kogo DPU imeni V. Vynnychenka. Serija: Filologichni nauky (Movoznavstvo)* [Scientific notes of V.Vynnychenko Kirovograd state university. Series: Philological Studies (Linguistics)] 81(3): 381-385. (in Ukrainian)
- Permyakov, G.L. 1975. K voprosu o strukture paremiologicheskogo fonda [Towards the question of paremiological fund]. In E.M. Meletinskij, and S. Ju. Nekljudov (eds.), *Tipologicheskie issledovanija po fol'kloru: sb. st. pamjati Vladimira Jakovlevicha Proppa (1895-1970)* [Typological studies of folklore: collection of papers in memory of Vladimir Propp (1895-1970)], 247-274. Moscow: Nauka. (in Russian)
- Petsch, R. 1899. *Neue Beiträge zur Kenntnis des Volksrätsels*. Berlin: Meyer und Müller.
- Sedakova, I.A., and S.M. Tolstoy. 1999. Zagadka [The riddle]. In N.I. Tolstoy (ed.), *Slavjanskije drevnosti: jetnolingvisticheskij slovar': v 5 t.* [Slavonic antiquities: ethnolinguistic dictionary in 5 volumes], 2: 233-237. Moscow: International relations publishing. (in Russian)
- Selivanova, E. 2000. *Kognitivnaja onomasiologija* [Cognitive onomasiology]. Kyiv: Phitosociocentre. (in Russian)
- Selivanova, E. 2005. Kognitivnye mehanizmy denotacii ukrajskoj zagadki [Cognitive mechanisms of the Ukrainian riddle denotation]. *Uchenye zapiski Tavricheskogo nacional'nogo universiteta im. V. Vernadskogo. Serija: Filologija* [Scientific notes of V. Vernadskij Tavriya national university. Series: Philology] 18(57), 2: 356-360. (in Russian)
- Semenenko, N.N. 2011. Problema opisanija funkcional'no-kategorial'nogo statusa zagadok kak paremicheskogo zhanra [The problem of describing a functional and categorical status of riddles as a paremeological genre]. *Izvestija Rossijskogo gosudarstvennogo pedagogicheskogo universiteta im. A.I. Gercena* [Newsletter of A. Gertsen Rostov state pedagogical university] 127: 129-136. (in Russian)
- Taranenko, L. 2013. Fabul'na structura folklornoyi zagadky ta kognityvno-kreatyvni mekhanizm yiyi decoduvan'y [The plot structure of the folk riddle and the cognitive-and-creative mechanism of it decoding] *Science and Education a New Dimension: Philology*, Budapest, I (3), 13: 167-174. (in Ukrainian)
- Taylor, A. 1943. The Riddle. *California Folklore Quarterly*. 2(2): 129-147.
- Taylor, A. 1951. *English Riddles from Oral Tradition*. Berkeley, Los Angeles: University of California Press.
- Thompson, S. 1955. *Motif Index of Folk-literature: a classification of narrative elements in folktales, ballads, myths, fables, mediaeval romances, exempla, fabliaux, jest-books, and local legends*. Bloomington, IN: Indiana University Press.
- Tucker, B. 2011. *Reading Riddles: Rhetorics of Obscurity from Romanticism to Freud*. Lewisburg, Pa: Bucknell University Press.
- Tupper, F. Jr. 1910. Introduction. In F. Tupper, Jr. (ed.), *The Riddles of the Exeter Book*. Boston: Ginn & Co.

# Second Order Coherence: A new way of looking at incoherence in texts

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## Abstract

By using van Dijk's concept of coherence and bringing it together with my *Principle of meaning iconicity*, we have a new way of looking at incoherence in texts. The principle says that closely related information is meaningfully related on a pragmatic level, an instruction to the reader to relate the information to each other. It is demonstrated by textual analysis that the concept of coherence can be used analytically by dividing it into first and second order coherence. *First order coherence* is the usual concept of coherence: sentences are connected by cohesive links and related by causality, time etc. *Second order coherence* is a way of organizing text by using incoherence as a way of organizing text into chunks of coherent parts. It is shown how readers can detect these structures in the text by detecting the incoherence even without the layout of the text to signal structure (e.g. indentation of paragraphs).

**Keywords:** text linguistics, coherence, text analysis, pragmatics

## 1. Introduction

The concept of coherence is a blunt instrument when it comes to describing and analyzing texts. In the tradition from Beugrande and Dressler (1981) it vaguely means that the text is a whole when its elements are connected. Van Dijk (1977) analyzed coherence as referential sameness, an analysis later considered as simpleminded and shot down by various counterexamples. Most famous in the "Calderon was a great writer. We will have guests for dinner". But in a context where the guests are scholars of Calderon the text makes sense, and therefore it is meaningful without anaphoric relations between sentences. But as soon as you put this information into the text, as in "Calderon was a great writer. We will have guests for dinner. They all love him", the text is exactly coherent due to the anaphoric relation – the information bridges between the first and second sentence. I therefore suggest revitalizing the van Dijk concept of coherence. By bringing it together with my *Principle of meaning iconicity* (Ulbaek 2005), we have a new way of looking at incoherence in texts. The principle says that closely related information is meaningfully related on a pragmatic level, an instruction to the

reader to relate the information to each other. It is demonstrated by textual analysis that the concept of coherence can be used analytically by dividing it into first and second order coherence. *First order coherence* is the usual concept of coherence: sentences are connected by cohesive links and related by causality, time etc. *Second order coherence* is a way of organizing text by using incoherence as a way of organizing text into chunks of coherent parts. It is shown how readers can detect these structures in the text by detecting the incoherence even without the layout of the text to signal structure (e.g. indentation of paragraphs).

## 2. The importance of the concept of coherence

As has been known at least from the time of Beaugrande and Dressler's significant book, *Introduction to text linguistics* (1981), the concept of coherence is a sine qua none for understanding the concept of text. In a sense it is the backbone of text linguistics. One of the seven defining characteristics of texts is that it is coherent.

'A text "makes sense" because there is a CONTINUITY OF SENSES among the knowledge activated by the expressions of the text (cf. Hörmann 1976). A "senseless" or "non-sensical" text is one in which text receivers can discover no such continuity, usually because there is a serious mismatch between the configuration of concepts and relations expressed and the receivers' prior knowledge of the world. We would define this continuity of senses as the foundations of COHERENCE, being the mutual access and relevance within a configuration of CONCEPTS and RELATIONS.'

(Beaugrande and Dressler 1981: 84)

So, coherence is when there is "continuity" in the text, incoherence is when there is discontinuity. The coherence of the text makes it possible for the reader to build one mental model of the topic(s) of the text, whereas incoherence may split topics into different and unrelated mental models or in the worst case into no mental model at all (on mental models, Togeby 1993, Johnson-Laird 1983).<sup>1</sup> So, incoherence is seen as a deficiency of the text, which of course can be true and make texts unreadable and unable to fulfill any communicative intention at all. But total incoherence is rare, more often there will be local incoherence, which can be repaired or circumvented still leaving most of the text intact. Later, I will present a different kind of view of incoherence in texts, which serves a function in organizing the text and which have been overlooked, maybe due to the expectation that incoherence cannot be an ordinary part of texts.

## 3. Development of the concept of coherence

As is well known, the concept of continuity is not enough to explain coherence in well-formed texts. Teun van Dijk showed that you can have continuity in texts which, so to speak, drift away from an overall topic of the text, as in (1).

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<sup>1</sup> I use "reader" as the receiver of text due to my definition of text as primarily a form of language use carried by writing. Text is monolog, planned and of limited size such that the end is anticipated from the beginning, such that all goals presented from the start are fulfilled when the text ends (cf. Ulbaek, 2005).



- (1) 'John was ill, so he called the doctor. But the doctor could not come, because his wife wanted to go to the theater with him. They were playing Othello which she thought they could not miss because Shakespeare was one of the few dramatic writers who...'

(van Dijk 1980: 40)

What we see in this nicely constructed example is *local coherence*. There are anaphoric connections between each consecutive proposition, and each consecutive sentence gives a reason for the previous proposition. The continuity is present, but a main topic is missing, the first proposition raises a question in the readers mind about John's disease which is fading away in the way the text is digressing. The text is lacking *global coherence*.

For the purpose of understanding the relation of local and global coherence in texts van Dijk developed the concept of *macrostructure*. By having four rules of reduction (three, actually, the zero rule did not compress the text) used recursively under the guidance of dominance and subordination of information in paragraphs, he was able to show that the text could be reduced to ever smaller texts still in coordination with the original one being an ever shorter abstract until one proposition is left: The macroproposition showing the text to be one and global coherent and expressing the main topic of the text (cf. van Dijk 1980, Ulbaek 2005).

My own theory of *pipelines* is giving a dynamic account of coherence between paragraphs in texts (Ulbaek 2001, 2005). In short, I have formulated a *principle of meaning iconicity* which claims, ceteris paribus, that the closer two meaning components are, the closer they are physically related. As a reader you would expect two meaning entities to be relevant for each other, if placed together. It is in a sense both trivial and weak; trivial because we expect the phonemes of a word to be together and not distributed among the other words (anagrams of course an exception), a phrase to be grouped together, a sentence to border on other sentences etc. The principle is weak because it does not confer or predict the kind of structure the linguistic entity has. Still, it is important. Paragraphs are grouped likewise both within themselves and among other paragraphs. Internally, the paragraph carries a subtopic within the text's superordinate topic, the different paragraphs of the text carrying the different topics that is required to fulfill the purpose of the text, having the depth of intention as required by purpose and genre (for depth of intention, see Togeby 1993, borrowing the term from Arne Naess (1966)). The consequence of the principle of meaning iconicity for the ordering of paragraphs is obvious: They will be ordered in such a way that they are related in a meaningful way. And the meaningful relation is expressed through pipelines: a proposition in a subsequent paragraph is connected to a proposition in the previous paragraph creating a pipeline of information between the two paragraphs. The second paragraph is connected to the first and in turn connects to the next and so forth through the text making it a connected whole with a rather flat structure. An example of this will be given later (but see for further elaboration Ulbaek 2001, 2005).

All this is of course important steps in explaining coherence in texts, but notice that lack of continuity, connectedness and structuring is only seen as leading to incoherence, breakdown of structure, making the text break down. In the following, I will investigate whether this is actually true. Could incoherence in text serve a function? In my opinion incoherence can be benign as well as malignant, to use a medical metaphor.

In the following, I will develop the concept of second order coherence, which depends on certain forms of incoherence in texts and which shows the function of incoherence.

#### 4. First order coherence

For my theory I need a way of characterizing ordinary coherence. I will revive the theory of coherence which was suggested by van Dijk (1977), which states that coherence depends on sameness of referents or discourse referents across consecutive propositions, as in example 2.

(2) I saw a funny *Roll Royce* yesterday. *The car* was painted flower power-like.

In (2) there is a sameness of referent in both sentences, a certain type of car. *The car* is anaphorically related to *Rolls Royce* as this expression can or will establish in the reader's mind a discourse referent, and *the car* is identified with this discourse referent due to automatic inferences guided by different principles (e.g. the principle of meaning iconicity; the drive to minimize the number of discourse referents in a text (Ulbaek 2005); the form of the expression itself (determined NP)). The negative side of this is then, that if there is no reference to the same discourse referent(s), then there will be incoherence, as in van Dijk's famous Calderon-example (3).

(3) We will have guests for lunch. Calderon was a great Spanish writer.

None of the first propositions discourse entities (we, guests, lunch) is taken up in the second proposition. Instead Calderon is predicated as a great Spanish writer.

This view of coherence as continuation of referents through the text has been questioned and in the example shown above to fall short of giving the correct analysis. Livia Polanyi (1995) used the above example to show that given the right kind of context the sequence in (3) makes full sense. Given that the guests are all fans of Calderon, the second proposition makes sense as their high estimation of him. Does it mean that the sequence in (2) was coherent after all? Yes and no. No, as it stands it isn't, but given the extra information, can be regarded as coherent – in that context. But what happens when you put the contextually given information about the guest into the sequence? Consider (4).

(4) We will have guests for lunch. They are all fans of Calderon. Calderon was a great Spanish writer

We can see that the incorporated information does bridge the information in first proposition to the (now) third sentence. When the information that was assumed known in the context is placed in the sequence, it turns the sequence into a coherent whole due to the factors claimed necessary by van Dijk (1977).

So, in the following, I will be inspired by van Dijk's definition of coherence and name it first order coherence (or 1. order coherence). I use it as a method of tracing sequences of coherence through a text and detecting when coherence ends by breaking the chain of discourse referents. This incoherence can give rise to second order coherence (or 2. order coherence).

The point of having the concept of first order coherence seen in this way is that the concept of coherence (and, *mutatis mutandis*, incoherence) is rather clear cut: Whenever the relation between discourse referents can be sustained, there will be coherence, whenever the relation cannot be established (e.g. by inference) by the reader, he will experience incoherence and the text as a unity will break down.

Here is an example of first order coherence (5).

- (5) ‘As argued above, **the following articles** enjoy considerable conceptual and theoretical overlap. **All** deal with *a mixture of theoretical and analytical questions*, and *these* are often deeply interdisciplinary.’

(Auken *et al.* 2015: xx)

As can be seen, there is an anaphoric relation between the two bold expressions and likewise between the two in italic thus relating the three propositions expressed by the sentences. The text is coherent.

Incoherence is then when no relation can be made, as in (6).

- (6) Time is now 11 am, and I am John Doe. This is PopFM.

In (6), which mimes the announcing of a radio program, there is no relation between the proposition as there are no relations between the discourse referents in them. It does not constitute a text and do not pretend to do so. It is a list of unrelated information all of which is relevant on its own but not to each other.

A related phenomenon happens when the speaker makes flow in the announcement by relating predicates between propositions, as in (7).

- (7) The weather will be warm tomorrow. And our next guest is hot too.

I term this kind of pretending coherence as *pseudocoherence*, as it relates two phenomena which have nothing in common except that the same kind of predicate can be applied to it (Ulbaek, 2005).

Ordinary text, most texts in fact, will have these broken bonds between discourse referents. Does it mean that ordinary texts are incoherent and a fortiori not textual unities, after all? That will make this concept of coherence too severe and be a contradiction in terms. This is where second order coherence comes in.

## 5. Second order coherence

The point of the concept of second order coherence is that it restores coherence, not by establishing relations between discourse referents, but by establishing structure and order in the text.

Text writing and reading is guided by *the principle of meaning iconicity* (Ulbaek 2005). The principle states that the closer two text units are physically, the more related they are. It's an ordering principle. Two adjacent sentences or propositions can, by this principle, be expected to be relevant for each other. That is what happens in the Calderon-example above. The list in (6) should give rise to the same expectation, but seldom do, as we are used to the

format. But one of the Danish newspapers on the internet has begun to brief its readers, so it is a new format here. The briefing is introduced by a similar list as in (6), but as you mistake it as an ordinary text, it activates the principle of meaning iconicity, see (8).

- (8) 'Kvinde fra Kazakhstan slår hul til 47 mio. dokumenter. Slut for toppolitiker: I fængsel i halvandet år. Columbine High-massemorders mor taler ud.'

(Jyllands Posten: Briefing 02-15-2016)

[Woman from Kazakhstan beats hole to 47 million documents. End of politician: In jail for eighteen months. The mother of Columbine High mass murderer speaks out.]

At first in reading this you feel that you are led down a garden path/blind alley, as you try to make the second sentence relevant to the first, trying to figure out what role the jailing of the politician has in the mysterious first proposition about this woman getting access to the huge amount of documents. I usually detect the incoherence quickly by searching for genre information, finding the "briefing" located above in a pale font, thereby separating the information in, here, three independent propositions. Turning text construction into list construction. Actually, this is the same kind of inference as is going on in establishing second order coherence, making structure in text, but now the result is not a list but a text.

Second order coherence is invoked when one is:

- a) reading a text one sentence at a time;
- b) expecting the sentences to be relevant to each other (the principle of iconicity);
- c) trying to establish first order coherence but fails;
- d) detecting that the text is incoherent;
- e) inferring that the incoherence is there for a reason;
- f) establishing what that reason is by imposing structure on the text;
- (g) identifying what kind of structure – e.g. the production form.)

Instead of seeing this incoherence as a malignant feature of the text, it will in most cases work as a signal to the reader to infer second order coherence. The text does not break down but is given a structure (anticipated, of course, by the writer).

The process resembles the Gricean procedure for finding implicatures (Grice 1989). So, by the principle of cooperation which here is supplemented or crystalized by the principle of iconicity, the reader is expecting the consecutive sentences to be relevant to each other sequentially. They will be so if first order coherence can be established, but it will not be relevant, if there is first order incoherence. Still expecting the cooperative principle to be obeyed by the writer, the reader will look for – not implicature, – but second order coherence (see Table 1).

**Table 1:** Comparison between implicature and second order coherence

Grice	Second order coherence
Inference from what is said	Inference from first order incoherence
To what is meant: implicature	To second order coherence

So, by detecting first order incoherence the reader imposes structure on the text, which saves coherence, not first order, but second order. The reader divides the text into chunks of

information within which first order coherence obtains. Between the structures, then, there is second order coherence. First part of the text has a theme, second part of the text has another theme. Second order coherence connects the two parts into a coherent whole, such that the text can develop a certain topic in the depth to which the text is designed to treat its topic. Second order coherence is also assigning functions to the different parts of the texts.

When commencing reading a text, the reader will naturally expect the first part to be a presentation form of the type orientation (Chafe 1994). But some texts, e.g. journalistic interviews, start with a teaser, the journalist himself walking up a street to go to a bar. The orientation then comes later and so to speak pulls back the guess “orientation” from the first part and reassigns it e.g. “description”.

If the text is to be a successful coherent whole, there have to be parts of the text where first order coherence obtains, and if first order does not obtain, it marks the borders of these parts. If it is possible to detect second order coherence between the parts the text as a whole has a structure – and is coherent. This structure can then be seen as a macrostructure (van Dijk 1980), the parts having a macroproposition. The macropropositions of the parts taken together form a condensed abstract of the text, itself being able to be further reduced to a single macroproposition expressing the overall topic of the text, showing it to be one coherent whole. But as suggested underneath the macrostructure the text has to be given the structure on which the reduction rules can be applied. This is the work of second order coherence.

This theory of first and second order coherence shows that coherence is not an either-or-concept. Coherence comes in degrees: parts of the text are more coherent than other parts.

## 6. Text Analysis

In this section, I will by way of text analysis show how the concepts of first and second order coherence work together to generate structure in the text.

The text is chosen at random from the Internet: Joyce Wadler: The Sex Toys in the Attic, (New York Times, November 9, 2013).<sup>2 3</sup> I will analyze the first part of the text (see below).

I’ve been thinking about an extremely beautiful sex toy an old boyfriend got me — I think it is on my mind because he is having heart surgery this week. This is how it is at a certain age; when you hear about an old boyfriend it’s not because he got married or got a great job, it is because they’re threading tubes into his chest and doing an ablation on his heart.

This toy, which was silver and shaped like a stylized banana, was so complicated I never used it. Also you had to charge it for a few hours. It wasn’t one of those things that charged with a discreet little light either; it blasted O-shaped strobe signals across a dark-ened room that could have been used to direct incoming flights at a small airport, ideally one catering to businessmen whose wives had lost interest in sex years ago. Well, that’s what they all say, isn’t it?

(Wadler 2013)

<sup>2</sup> <http://www.nytimes.com/2013/11/10/booming/the-sex-toys-in-the-attic.html?src=me&ref=general>

<sup>3</sup> In my Danish paper on second order coherence (Ulbaek 2013a) I have used the same procedure: to pick texts at random to enhance the validity of the theory.

Due to the principle of iconicity of meaning we as readers will expect the sentences to be sequentially relevant for each other. And the same goes for the two paragraphs. This is the weak ordering imposed by the principle: The information is not presented at random. But of course it is not enough to have the expectation, the text has to fulfill the promise by being coherent.

'I've been thinking about an extremely beautiful sex toy an old boyfriend got me <and what about the sex toy?> — I think it is on my mind because he is having heart surgery this week <and what about his heart surgery?>. This is how it is at a certain age; when you hear about an old boyfriend it's not because he got married or got a great job, it is because they're threading tubes into his chest and doing an ablation on his heart.'

In the first paragraph there are three chains of anaphors:

- a) The I of the author: I've – I – you (including the author).
- b) the sex toy: an extremely beautiful sex toy – it
- c) the boyfriend: an old boyfriend – he – an old boyfriend – his chest

The information structure (Lambrecht 1994) of the first sentence has the sex toy as topic, and is commented on in the second sentence which changes the topic to the boyfriend in the third sentence and his heart surgery, which the rest of the paragraph is commenting on in a general fashion. So, the whole first paragraph is first order coherent. To complete the anaphor-analysis, the they-pronoun looks unidentified as there is neither an anaphoric or cataphoric relation to a discourse referent. But the concept "heart surgery" opens a frame of surgeons operating patients. So the inference is easy for the reader: to identify the pronoun with the implicit discourse entities (surgeons).

Next, I will analyze the last sentence complex in the first paragraph and the first sentence of the second paragraph.

'This is how it is at a certain age; when you hear about an old boyfriend it's not because he got married or got a great job, it is because they're threading tubes into his chest and doing an ablation on his heart.  
<incoherence between paragraphs>

This toy, which was silver and shaped like a stylized banana, was so complicated I never used it.'

Seen separately there is no connection between the two, which means that the text is incoherent at this point. But as already mentioned the text does not break down because the reader expects the text to be coherent (by the principle of meaning iconicity), and it is: It is second order coherent. The incoherence is a signal of a change of subject, so second order coherence is making a structure of the text. The first paragraph is primarily about the boyfriend and his heart surgery, a sign of being old. The second paragraph is about the sex toy, a topic for the rest of the article.

The first paragraph looks at first as if it is about the sex toy, but it changes subject to the old man and his heart surgery. When the second paragraph returns to the topic of the sex toy – and it turns out the man almost never is commented on again, it actually not only structures the text, but also allows the reader to infer the presentation form of the first paragraph: It is a digression as a part of an orientation about the topic (on orientation, see Chafe 1994).

The second paragraph has a very strict first order coherence structure, as the reader can assure himself. The topic is the awkwardness of the sex toy, the way it lights up the room when being charged. So the presentation form is description.

I have pointed out that there is incoherence between first and second paragraph when you proceed sequentially through the text reading one sentence at a time. But clearly the two paragraphs are not unrelated. Coherence is not either-or; parts of texts are more coherent than others. As stated above, the principle of iconicity of meaning also works for paragraphs. The two paragraphs are next to each other because they are related. And the relation can be traced by what I call *a pipeline structure* (Ulbaek 2001). The pipeline metaphor is used because of some similarities to a real oil pipeline. The pipeline is connecting a source of information and a goal of information. The unit of information is the proposition. The pipeline is connecting a proposition in the first paragraph and a proposition in the next, as can be seen in the sex toy text. The pipeline is connecting the two italicized propositions:

*I've been thinking about an extremely beautiful sex toy an old boyfriend got me* — I think it is on my mind because he is having heart surgery this week. This is how it is at a certain age; when you hear about an old boyfriend it's not because he got married or got a great job, it is because they're threading tubes into his chest and doing an ablation on his heart.

*This toy, which was silver and shaped like a stylized banana, was so complicated I never used it.* Also you had to charge it for a few hours. It wasn't one of those things that charged with a discreet little light either; it blasted O-shaped strobe signals across a dark-ened room that could have been used to direct incoming flights at a small airport, ideally one catering to businessmen whose wives had lost interest in sex years ago. Well, that's what they all say, isn't it?

(Wadler, op. cit.)

Due to the way the paragraphs can be organized, the pipeline structure will not be simply connecting the last proposition in the first paragraph to the first proposition in next paragraph – or: it doesn't have to do so. That it doesn't happen in the chosen example here is because of the digressive content of the first paragraph. The thoughts of the old boyfriend would not be a digression if the author continued writing about him further on. He is mentioned, though, in the fourth paragraph: “But now, with the old beau's surgery looming, the toy – rather its disposal – was on my mind” (Wadler, op. cit.).

So there is a pipeline between the first paragraph and the fourth, relating information about the boyfriend in both paragraphs, but as can be seen, he is not the topic of the fourth paragraph. The topic stays on the sex toy. And, actually, the mentioning of him again isn't necessary to understand the problem of getting rid of the toy. His function is primarily being the giver of the toy and being old and ill (two themes that runs through the column without bringing him up again).

This textual analysis cannot be more than a demonstration of the way the theory of second order coherence is considered to be a tool for analysis of the way the text is structured.

## 7. Detecting structure in a text – an experiment

As has been shown above, the indentation marking paragraphs are a way of signaling second order coherence, a way of imposing visual structure on the total set of sentences making up a

text. Guides to better writing often suggest just that: Whenever you start on a new subtopic make a new paragraph. But there is also more loose advice: Divide your text into short paragraphs to make it visually attractive. Text written for the Internet will often have this kind of very short paragraphs. The last way of dividing the text will of course not respect the structure given by the text itself, making paragraphs somewhat arbitrary. This arbitrariness can also be seen in untrained (and even in trained or professional) writers. Still, it seems reasonable that paragraphs primarily have the function of marking change of subject within the text.

So, where is the paragraph marking of the text? I have tested that question using my Danish students at The University of Copenhagen and students from two classes from a high school in a suburb of Copenhagen. The experiment is straightforward. You take any text having paragraphs that are indented, delete the indentation to make it unstructured. The subjects are not briefed on the purpose of the experiment, but they are asked to mark in the text with a pencil where they would divide it into paragraphs. They are told that there are no correct answers that they should try to figure out. They use 5 to 10 minutes to complete the experiment.

The text used is an editorial of a Danish newspaper, Politiken, the Internet version.<sup>4</sup> The subject of the editorial is the near bankruptcy of the Scandinavian Airline System (SAS) calling for the politicians to take action to secure the company in the future.

The text consists of 18 sentences which are indented into 10 paragraphs. Here the first four are shown:

1. Ofte er det først, når man er ved at miste noget, at man erindrer, hvor meget det egentlig betyder.
2. Det har vi netop oplevet med luftselskabet SAS, der i går blev reddet på konkursens rand. 3. Der er al mulig grund til at udtrykke respekt for de medarbejdere, der nu har accepteret lavere løn og længere arbejdstid for at redde selskabet.
4. Nogle vil ekstrapolere SAS' situation til hele det danske arbejdsmarked, hvor Venstre har sat kollektiv lønnedgang på dagsordenen som svar på den økonomiske krise. 5. Men intet kunne være mere forkert. 6. SAS har været i en helt ekstraordinær situation, og med-arbejderne har accepteret en ekstraordinær løsning.
7. Dermed har de ikke alene reddet deres egne arbejdspladser, men også en afgørende del af Danmarks infrastruktur og et stykke skandinavisk erhvervshistorie. 8. Det havde været en katastrofe for både København og Danmark, hvis flyselskab var faldet sammen efter års dårlig ledelse med skiftende strategier.

The Danish text is here translated into English:

1. Often it is only when you are losing something that one recalls how much it really means.
2. We have just experienced this with the airline company, SAS, which yesterday was rescued on the verge of bankruptcy. 3. There is every reason to express respect for the employees who have now accepted lower wages and longer hours to save the company.

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<sup>4</sup> <http://politiken.dk/debat/ledere/ECE1818176/sas-er-noeglen-til-globalisering/> (since the experiment, the editorial has been locked, giving only access to the first part of it).



4. Some will extrapolate the SAS' situation to the entire Danish labor market where the Liberals have put collective wage cuts on the agenda in response to the economic crisis. 5. But nothing could be more wrong. 6. The SAS has been in an extraordinary situation, and employees have accepted an extraordinary solution. 7. Thus, they not only saved their own jobs, but also a crucial part of Denmark's infrastructure and some Scandinavian business history. 8. It would have been a disaster for both Copenhagen and Denmark, whose airline company had collapsed after years of mismanagement with its erratic course.<sup>5</sup>

The experimental text is given to the subject without indentation as shown here:

1. Often it is only when you are losing something that one recalls how much it really means. 2. We have just experienced with airline company, SAS, which yesterday was rescued on the verge of bankruptcy. 3. There is every reason to express respect for the employees who have now accepted lower wages and longer hours to save the company. 4. Some will extrapolate the SAS' situation to the entire Danish labor market where the Liberals have put collective wage cuts on the agenda in response to the economic crisis. 5. But nothing could be more wrong. 6. The SAS has been in an extraordinary situation, and employees have accepted an extraordinary solution. 7. Thus, they not only saved their own jobs, but also a crucial part of Denmark's infrastructure and some Scandinavian business history. 8. It would have been a disaster for both Copenhagen and Denmark, whose airline company had collapsed after years of mismanagement with its erratic course.

## 8. Results

I tested university students and high school students, here C1 and C2, and I present the results individually for each class, due to their differences in age and gender distribution. I compare the results with the original (called O in Table 1) and my analysis (called A in Table 1) (original presented in Ulbaek, 2013b).

My own class (C1) in Danish language was 15 women and 1 man, average age 21.5 years. The two high school classes (C2) were 24 men and 15 women, average age 17.7 years.

What is represented as results in Table 1 is where each class as a whole would collectively divide the text into paragraphs. So, the paragraphs are placed where a majority of the subjects has marked for paragraphs in the text. The original paragraphs from the editorial have just been copied and my analysis is finding second order coherence.

*Table 2*

Paragraph	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
C1		x	x					x		x		x					x	
C2							x			x							x	
O	x		x			x		x		x		x	x	x			x	x
A			x				x			x		x					x	

As seen from the table, different results can be extracted as listed below.

- a) None of the four groups have come up with identical results.
- b) Two paragraphs are very robust as all four groups mark them: between sentence 10 and 11, between sentence 16 and 17.

<sup>5</sup> The numbering was put into the text given to the subjects for ease of calculating the result; it wasn't, of course, part of the original editorial.

- c) Four places for not placing a paragraph are very robust in the same vein: (4-5; 5-6; 11-12; 15-16).
- d) Two paragraphs are robust as three out of four mark them: (3-4; 12-13).
- e) Five places for not placing a paragraph are robust as three out of four do not mark them: (1-2; 6-7; 13-14; 14-15).
- f) O has most paragraphs not marked by the other three groups; C2 and A have least (none).
- g) O has most paragraphs (10), C2 least (3). The average number of paragraphs are 6 (C1 is the average group).
- h) If all four groups are pooled together to structure the text, it would consist of four paragraphs: (3-4; 10-11; 12-13; 16-17).
- i) C1 has 4 out of its 6 paragraphs among the very robust and robust paragraphs; C2 has 2 out of its 3 paragraphs among the same; O has 4 out of 10 and A has 4 out of 5.

The results point to the non-arbitrary nature of paragraphs in the text. The overall organization of the text contains enough information for a skilled (and semi-skilled: the high school students) reader to detect the boundaries, of which the theory of second order coherence gives an account. And we see that the paragraph marking of the original text is not derived from the structure of the content of the text. The use of many and short paragraphs is guided by the convention of the Internet, making the text easy to read online on a computer screen.

Let me end this section of the article by looking at one of the two very robust paragraphs, the one between sentence 10 and 11.

10. If the long-term threat is to be avoided, it requires a political response and reconsideration of all the Scandinavian Governments on how we ensure our mutual airline company a future. 11. At yesterday's press conference SAS Chairman of the Board showed again that he is not the right person to head the company, as he outlined a strategy to prepare for a sale of the company.

In sentence 10, the topic is a call to the politicians to ensure a future for the airline company. In sentence 11, the topic changes to the role of the airline company's Chairman of the Board. In a sense the first order coherence breaks down because the change is big: from a political statement from the editor to an assessment of the strategy of the company. Therefore second order coherence gives reason to mark a new paragraph as seen in the students' reply, in the editorial itself and in my analysis. Still, the two propositions are not unconnected. There is room for an implicit relation connecting 10) and 11): To ensure the future of the SAS the Chairman of the Board should step back. Coherence and incoherence are fuzzy concepts and not a question of one or the other.

## 9. Conclusion

The aim of this paper has been to present a new theory of coherence within text linguistics. It takes a look at the concept of coherence and develops a theory that makes it useful as a tool for analysis of structure in texts. It does so by having a robust theory of coherence inspired

from van Dijk (1977), calling it first order coherence. By applying the first order coherence-concept on texts, it can be used to detect incoherence in texts. It is shown that this incoherence is (or can be) a part of the normal functioning of texts. It is a structuring device, dividing the overall topic of the text into subtopics, normally signaled by dividing the text into paragraphs. The procedure for detecting second order coherence resembles the Gricean procedure for detecting implicature, except that it doesn't find implicit meaning but implicit structure. To show its usefulness as a theory of coherence, analysis on part of a column is undertaken. Further, an experiment using a text without indentation shows that students are competent in detecting the structuring of the text.

## References

- Auken, S., P. Schantz Lauridsen and A. Juhl Rasmussen (eds.). 2015. *Genre and...: Copenhagen Studies in Genre 2*, Vol. 2 1. Valby: Ekbatana.
- Beugrande, R.-A. and W. Dressler. 1981. *Introduction to Text Linguistics*. London: Longman.
- Chafe, W. 1994. *Discourse, Consciousness, and Time. The Flow and Displacement of Conscious Experience in Speaking and Writing*. Chicago: The University of Chicago Press.
- Dijk, T. van. 1977. *Text and Context*. London: Longman.
- Dijk, T. van. 1980. *Macrostructures*. Hillsdale, NJ: LEA.
- Grice, P. 1989. Logic and conversation. In P. Grice: *Studies in the Way of Words*, 22-40. Cambridge, Massachusetts: Harvard University Press.
- Johnson-Laird, P.N. 1983. *Mental Models*. Cambridge: Cambridge University Press.
- Lambrecht, K. 1994. Information Structure and Sentence Form. Topic, Focus and the Mental Representations of Discourse Referents. Cambridge: Cambridge University Press.
- Naess, A. 1966. *Communication and Argument*. Oslo: Universitetsforlaget.
- Polanyi, L. 1995. The linguistic structure of discourse. CSLI Publication.
- Togeb, O. 1993. *Praxt. Pragmatisk tekstteori 1-2*. Århus: Aarhus Universitetsforlag.
- Ulbaek, I. 2001. Pipelines and pipelining: a theoretical discussion of a concept to explain coherence between paragraphs. In L. Degand (ed.), *Multidisciplinary Approaches to Discourse*, 41-49. Amsterdam: Stichting Neerlandistiek.
- Ulbaek, I. 2005. *Sproglig tekstanalyse. Introduktion til pragmatisk tekstanalyse*. Copenhagen: Academica.
- Ulbaek, I. 2013a. Andenordenskohærens. In *NyS*, 45: 73-103.
- Ulbaek, I. 2013b. Har tekstafsnit realitet? In S. Borchmann (ed.), *Gode ord er bedre end guld: Festskrift til Henrik Jørgensen i anledning af 60-årsdagen*, 501-514. Aarhus: Aarhus Universitetsforlag.
- Wadler, J. 2013. The Sex Toys in the Attic. *New York Times*, November 9.

# Asking and answering: A contrastive study of English and Swedish basic communication verbs

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## Abstract

This article presents a contrastive study of the English verbs *ask* and *answer* and their Swedish correspondents based on data from the English Swedish Parallel Corpus (ESPC), which is bi-directional and contains Swedish and English original texts and their corresponding translations. As a background, a short overview is given of Verbal Communication Verbs (VCVs) in general with brief discussions of speech act theory (Searle), direct and reported speech and conceptual frames (FrameNet) and their syntactic realizations. The contrastive study is concerned with networks of polysemy and the relationships of various senses with differing syntactic realizations across languages. The senses of *ask* are primarily distributed between two verbs in Swedish: *fråga* 'ask a question' and *be* 'request (politely)' but even some verbs with more specific meanings are involved. The concept of answering forms a conceptual network which is similar in English and Swedish but contrasts with respect to the way meanings are divided up between various verbs. English has a number of verbs such as *answer*, *reply*, *respond*, *correspond*, *retort* and *rejoin*, whereas Swedish to a great extent relies on one verb (*svara*) and its morphological derivations: *besvara*, *ansvara*, *motsvara*, *försvara*. In the Conclusion, pedagogical applications of the study are briefly discussed.

**Keywords:** corpus-based contrastive study, lexical semantics, FrameNet, English, Swedish, Verbal Communication verbs

## 1. Introduction

This paper is one in a series of studies of Swedish Verbal Communication Verbs (VCVs) with a special focus on 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 most frequent verb *säga* 'say' accounts for 22% and 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 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. An earlier study (Viberg 2016) analyzed verbs of saying, talking and telling based on the concept of the linguistic action scene (Dirven *et al.* 1982). This paper will present a case study of verbs

of asking and verbs of answering. These two groups of verbs have been extensively described in English. Rudzka-Ostyn's (1989) study of *ask* accounts for a number of different meanings which are primarily distributed between two verbs in Swedish: *fråga* 'ask a question' and *be* 'request (politely)'. The wide network of meanings of the verbs of answering in English is described in (Rudzka-Ostyn 1995). In Swedish, the corresponding network is built around the verb *svara* 'answer' and its uses as a derived and prepositional verb.

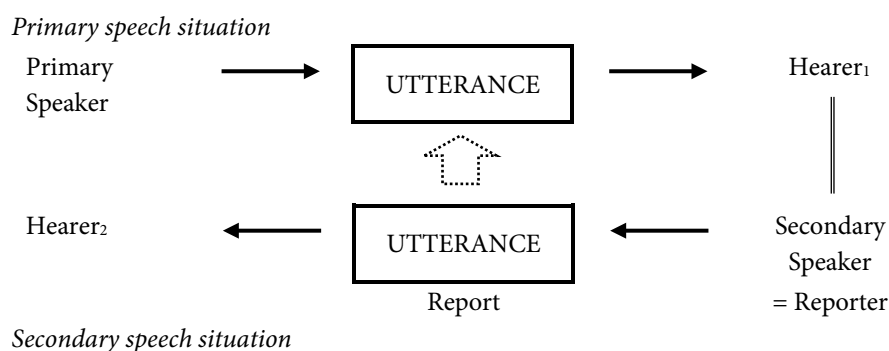
The database for the earlier study and for the present one is the English Swedish Parallel Corpus (ESPC), which contains Swedish and English original texts and their corresponding translations making it possible to carry out a corpus-based contrastive study (Altenberg and Aijmer 2000, Electronic sources). The texts are divided into two broad genres: Fiction and Non-fiction with several subcategories. The original texts in each language comprise around 700,000 words relatively evenly distributed between the two genres. Following Johansson (2007), parallel corpora can be divided into translation corpora containing original texts and their translations and comparable corpora containing texts in two or more languages which are as similar as possible with respect to genre, time of production etc. The ESPC combines the functions of both these types of parallel corpora. The lexico-grammatical analysis of the verbs of asking and answering in English and Swedish will be based on the ESPC as a comparable corpus by extracting concordances of all the occurrences in original texts of each verb. In this way it is possible to identify a set of uses of each verb. (A use combines aspects of the meaning of the verb and the grammatical constructions in which it appears.) Only in a second step will the ESPC be used as a translation corpus by looking at the translations of each use. In this way, it is possible to make comparisons based on the translation patterns in combination with comparisons that are based exclusively on original texts in both languages.

The rest of the paper is structured in the following way. Section 2 gives a brief overview of VCVs in general. Section 3 is concerned with *ask* in its use to report questions and its Swedish correspondent *fråga*, whereas Section 4 describes the use of *ask* to report polite requests. Section 5 is concerned with *be* and other Swedish verbs used to express polite requests. Section 6 is devoted to the verbs of answering in English and Swedish and the semantic network that these verbs are connected to. The result of the study is summed up and discussed in Section 7 Conclusions.

## 2. Verbal Communication Verbs: An overview

### 2.1. Reported speech

The VCVs are primarily used to report speech. A sentence such as *Peter told me to open the door* involves two speech situations as shown in Figure 1. A primary speech situation where someone called Peter acts as Speaker and makes a request, for example *Open the door!* and a secondary speech situation, where a second speaker (the Reporter) reports the utterance made by the first speaker, for example *Peter told me to open the door*. The function of this sentence is to give information about what Peter said, not to make a request.



**Figure 1:** Reported speech

The present paper will deal with speech act verbs used to report speech. Such reports can be direct and report the actual wording of the primary utterance or be indirect and report only the contents of the utterance in a more or less summary fashion. In English and Swedish, indirect report also triggers adjustments of tense and deictic markers which can follow different rules across languages and cause learning problems for second language learners (Hammarberg and Viberg 1976).

Since the terms direct and indirect are used also with reference to primary speech acts, the terms are compared in Table 1. A direct speech act has a form that explicitly expresses what kind of act it is, whereas an indirect speech act expresses this only implicitly, for example by using a question to make a request.

**Table 1:** Primary and reported speech acts

(PRIMARY) SPEECH ACTS		
Direct speech act		Open the door!
Indirect speech act		Can you open the door?
REPORTED SPEECH (SECONDARY SPEECH ACTS)		
Direct report		“Open the door!” Peter said. “Can you open the door?” Peter said/asked.
Indirect report	Clausal complement	Peter said that I should open the door. Peter asked me if I could open the door.
	Infinitive complement	Peter told me to open the door. Peter asked me to open the door.
Narrative report (condensed, non-clausal)		Peter asked me for help.

The term Narrative Report refers to cases where the speech act is realized in a condensed, non-clausal form. In this paper, the term will also refer to cases where a speech act fails to appear, as in: *But she asked no questions about his past life and told him nothing about hers.* (PDJ)

## 2.2. Frame semantics

The semantic description will be based on an eclectic combination of frame semantics and speech act theory. In frame semantics, verbs (and other relational words) evoke frames – schematic structures of recurring situations (Fillmore 1982). Frame semantics is the

theoretical foundation of FrameNet, a large lexical computerized database for English (see Fillmore *et al.* 2003).<sup>1</sup> In FrameNet, the frame Communication is defined as follows: “A Communicator conveys a Message to an Addressee; the Topic and Medium of the communication also may be expressed.” Communication is a general frame that covers any type of communication such as speaking, writing, signing or gesturing. In the following, reference will be made to a Speaker since only verbal communication will be described. (Speaker will also cover Writer in the few examples where it is relevant.) Table 2 shows the relationship between the conceptual frame and the canonical syntactic realization with some idealized examples. It should be noted that the syntactic realizations only show the realization of individual frame elements. In principle, word order and other aspects of clausal structure are regulated by the general grammatical system of the language.

**Table 2:** Verbal communication: From conceptual frame to syntactic frame

<i>Frame elements</i>	<i>Speaker</i>	<i>Linguistic action</i>	<i>Message</i>	<i>Addressee</i>	<i>Topic</i>	<i>Medium</i>
<b>Syntactic Realization</b>	NP	Verb	NP That-S Wh-S	PP NP (object)	PP	PP
	Ann	said	a few words	to Peter	about it	over the telephone
	Ann	asked	who was coming			
	Ann	asked		Peter	about it	

### 2.3. Speech acts

As discussed earlier for verbs of motion (Viberg 2015a,b), FrameNet needs to be complemented with a more detailed description of the semantic composition of the verb itself. Such a description is important to describe the *semantic differentiation* between verbs evoking the same frame and to characterize and explain several aspects of the *patterns of polysemy* of the verbs. For speech act verbs, a natural point of departure is Searle’s (1976) classification of speech acts (or illocutionary acts as he called them), which has been further elaborated and applied to the analysis of German communication verbs in Harras *et al.* (2004, 2007) and in the contrastive study by Proost (2007).

Table 3 presents the major types of verbs used to report speech acts. The classification is based on Searle’s (1976) classification, which has been criticized as a classification of direct speech acts, but serves as a good starting point for the lexical analysis. The verbs that will be analyzed in this paper are primarily used to report speech acts. Only in a few cases are they used to perform the act that the verb describes (i.e. performatively). For example, *Peter ordered Harry to come* is not an order but a report that describes the content of Peter’s utterance. The Reporter also performs a speech act, but that is rather what will be referred to as a Representative speech act. (The Reporter can also perform a request for information: *Did Peter order Harry to come?*)

Representative speech acts are used to describe the world and can be reported with two types of verbs: Assertive verbs, which report what is regarded as an opinion by the Reporter,

<sup>1</sup> The FrameNet database can be accessed at: <http://www.icsi.berkeley.edu/~framenet/>

and Information verbs, which report information that the Reporter more or less accepts as a fact. If someone called Peter said: “The prisoners have escaped”, this can be reported either with an assertive verb as *Peter claimed that the prisoners had escaped* or with an information verb as *Peter told me that the prisoners had escaped*. When *tell* is used, the reporter takes for granted that the information is correct (or at least the correctness is not regarded as an issue). By using *claim*, the Reporter signals that the information is regarded as an opinion (true or false) held by the primary Speaker.

**Table 3:** Verbs used to report Speech acts

Type of reported speech acts	Type of VCV	Verbs
Representatives	Assertive verbs	claim, assert
	Information verbs	tell, inform
Directives	Directive verbs	ask, order, request
Commissives	Commissive verbs	promise, guarantee, vow
Expressives	Verbs expressing emotions	apologise, thank, rejoice, complain
	Verbs expressing evaluations	praise, criticize
Declarations	Declarative verbs	baptize, declare war, fire (from employment)

Directive speech acts are carried out in order to get the Addressee to do something and are reported by using verbs such as *ask*, *order* or *request*. Commissive speech acts commit the Speaker to do something in the future and are reported with verbs such as *promise* and *guarantee*. Expressive speech acts are said to express the Speaker’s psychological state and are often realized as social routine utterances such as *I’m sorry* or *Congratulations, Harry!*, which can be reported as *He apologised* and *He congratulated Harry*. Declarations refer to speech acts that immediately change some institutional state of affairs if carried out by the right person in the right situation. Such verbs are often used performatively to carry out the act, for example *You’re fired!* (or the canonical performative utterance: *I fire you*), but can also be used to report the act: *NBC fires Donald Trump after immigration remarks* (headline).<sup>2</sup>

There are some VCVs that do not report a specific type of speech act, for example the nuclear (most general) verb of the field *say* that can be used to report any type of speech act. Another feature that is not accounted for in Table 3 is the place of the speech act in the developing discourse. An important such feature is +/- Reactive (e.g. Proost 2007). Certain speech acts such as *answer* (see Section 6) and *deny* and *reject* presuppose an earlier speech act (such as a question or a claim or a proposal).

### 3. Reporting questions in English and Swedish with *ask* and *fråga*

If the English verbal communication verbs are ordered in descending frequency, *ask* comes third after *say* and *tell*. *Ask* has two major meanings, which have two separate major translations in Swedish: (a) request information, ask a question, translated with *fråga* and (b)

<sup>2</sup> Perhaps *baptize* is a clearer example of an institutionalized, performative use of a declarative verb: “The requisite and sole valid form of baptism is: ‘I baptize thee (or This person is baptized) in the name of the Father and of the Son and of the Holy Ghost.’” (The Catholic Encyclopedia: <http://www.newadvent.org/cathen/02258b.htm>)



a polite request, asking the Addressee to do something, translated with *be*. Table 4 gives a brief overview of the use of *ask* in the English Swedish Parallel Corpus (ESPC), which shows that *ask* in the sense ‘ask a question’ is practically three times as frequent in Fiction as in Non-Fiction. The two major senses of *ask* will be treated in the two following sections.

**Table 4:** *The two major senses of ask in the ESPC*

	Fiction (F)	Non-fiction (NF)	Total	Dominant Swedish translation	
Question	307	103	410	fråga	322
Polite request	78	65	143	be	86
Total	385	168	553		

### 3.1. The use of *ask* to report a question

The first sense ‘ask a question’ (*ask<sub>Q</sub>*) will be treated rather briefly in spite of the fact that it is the most frequent use, since English and Swedish are rather similar on this point. The uses of *ask<sub>Q</sub>* and their frequency of occurrence in the original English texts in the ESPC are summed up in Table 5 together with information about their Swedish translations.

**Table 5:** *The uses of ask<sub>Q</sub> and its major Swedish translations in the ESPC*

Type of Message	English construction		Swedish translations	
Direct report	ask “X”	191	fråga “X”	154
			såga “X”	15
			undra “X”	9
Indirect report (clausal)	ask if-S, ask WH-S	97	fråga om-S, fråga WH-S	86
			undra ‘wonder’ om-S, WH-S	3
Inner speech	ask oneself	7	fråga sig (Reflexive)	6
Non-Clausal message		17	fråga	9
No message		47	fråga	40
<b>Special uses of <i>ask</i></b>				
Support verb	ask a question	37	ställa en fråga ‘put a question’	27
Rhetorical uses		14		
	may I ask	3	om jag får fråga / får jag fråga	3
	if you ask me	9	om du vill veta (min åsikt...)	5
	Other	2		
<b>TOTAL</b>	<i>ask<sub>Q</sub></i>	410	fråga (Verb)	298

In almost half of the occurrences of *ask<sub>Q</sub>*, the verb introduces a direct report as in (1). This is particularly characteristic of Fiction (F: 159, NF: 32). The dominant Swedish translation is *fråga* used in a congruent structure. In both languages, the Addressee is optional and realized as a direct object.<sup>3</sup>

<sup>3</sup> In all examples from the ESPC corpus, the original version appears first followed by a text code, e.g. (DF1) in (1), the reference of which is listed on the homepage of the ESPC project (see Electronic sources). Literal translations and other comments are sometimes given within square brackets. The original text is provided on top, followed by the translation. That’s why there is a switch when Swedish original texts are quoted.

- (1) “Is there anyone else here?” I *asked* her.(DF1)  
 “Finns det någon annan här?” *frågade* jag henne.

The second most frequent translation is the nuclear verb *säga* ‘say’. This verb can be used to give a direct report of any type of speech act. In several of the examples – but not in all – *säga* is used when the question is rhetorical. In (2), the reported utterance is a reproach rather than a genuine question.

- (2) “How could you do such a thing?” she *asked* Edward.(AT1)  
 “Hur kunde du bära dig åt på det viset?” *sade* hon till Edward.

*Undra* is rather a verb of thinking (*I have always wondered what a sextant is*), but like its English correspondent *wonder*, it can also be used as a VCV to translate *ask*. In (3) the Addressee is not translated since *undra* does not allow an explicit Addressee, which is a sign that it is not basically a communication verb. It is used conventionally together with direct and indirect reports of questions but expresses a request for information only implicitly by saying that the speaker wants to find out something. For that reason, *wonder* is often felt to be less intrusive than *ask*.

- (3) What should we do? she *asked me*.(RDO1)  
 Vad ska vi göra? *undrade* hon. [wondered she]

The contrast between *ask* and *wonder* in its prototypical meaning can be seen clearly in examples such as (4), where *wonder* is used as a mental verb and forms an antonymous pair together with *ask*.

- (4) Is she, perhaps, a vegetarian, Evelyn *wondered*, but did not like to *ask*, fearing the answer would be negative.(MD1)  
 Är hon kanske vegetarian, *undrade* Evelyn, men ville inte *fråga* av rädsla att svaret skulle bli nekande.

When *ask* is used to introduce an indirect report realized as a full *if*-S or *Wh*-S clause, *fråga* is completely dominant as a translation (see 5). Indirect reports are more frequent in Fiction than in Non-Fiction (F: 57, NF: 40), but the difference is not as great as it is with respect to direct reports. *Undra* ‘wonder’ is used as a translation only three times.

- (5) I *asked* if by any chance Greville had made a will,(DF1)  
 Jag *frågade* om Greville händelsevis hade skrivit ett testamente,

There is a close relationship between VCVs and mental verbs. *Think* can be used to report direct and indirect thoughts with the same types of complements as *say*. With a reflexive object as in (6), *ask* refers to inner speech and is usually translated with the reflexive *fråga sig*. In this use, *ask* is not clearly a VCV any longer but rather a mental verb.

- (6) “What’s that?” he *asked himself*, and sneezed.(JC1)  
 “Vad är det här för någonting?” *frågade* han *sig* och nös.

Only in few cases (17 in all), there is a non-clausal message. It can consist of a pronoun (*Why did he ask that?*), a quantitative (*He asked a lot/He didn't ask anything*) or a single question word (*He only asked why*).

In combination with the noun *question*, *ask* serves syntactically rather as a support verb (cf. *give a speech*). In most examples, the message is not expressed (see 7). The dominant translation is *ställa en fråga* 'put a question'.

- (7) The man would only speak to **ask questions**, and having gained the information he desired, he would fall silent again.(RL1)  
Mannen yttrade sig bara för att **ställa frågor** /---/

In (7), no message is reported, so *ask a question* in this as in most examples functions as a speech activity verb like *speak* and *talk* (see Viberg 2016, Section 4). Like these verbs, *ask a question* freely takes an Addressee and a Topic: *ask sb a question about sth*. In addition to the majority of the examples with *ask a question*, there are 47 examples where there is no message. *Ask* by itself functions as a speech activity verb in many of the examples where there is no message but only a topic and in some cases – as in (8) – also an Addressee.

- (8) You can talk French to him, and **ask** him about Iraq.(MD1)  
Du kan tala franska med honom och **fråga** honom om Irak.

There are 12 examples where the topic is marked with the preposition *about* (usually corresponding to *om* in Swedish). In addition, there are 8 examples, where there is a topic without any marker, and this is an interesting option since there is no direct correspondence to this construction in Swedish. In (9), the topic marker *om* is simply inserted.

- (9) She called Becky at the travel agency to **ask** his flight number,(AT1)  
Hon ringde till Becky på resebyrån och **frågade om** flightnumret,

All examples with a Zero-marked topic are restructured in the Swedish translation. The simplest solution is to insert a topic marker as in (9) and in *ask directions* translated *fråga om vägen* ('ask about the way'), but in several cases a paraphrase is used: "Why do you ask my name?" (KAR1) *Varför vill du veta mitt namn?* ['Why do you want to know my name?'] All of the examples with a Zero-marked topic refer to specific information. Looking back at example (8) for comparison, it is obvious that a lot of different questions can be asked about Iraq. The examples where there is only a topic are included in the category No message in Table 5. In addition, there are examples where neither the message nor the topic is expressed. Actually, the only obligatory argument is the subject, but there are relatively few examples of this type. Often the message can be inferred from context, see (4) above, where the understood message of *ask* is related to the message of *wonder* in the preceding clause. Swedish and English are rather similar on this point. 40 of the 47 examples with no message are translated by *fråga*.

As will be discussed in Section 4, *ask* referring to a polite request has several interesting uses when it is combined with a spatial particle. There is only one such combination when *ask* refers to a question: *ask round*. This is an example of a condensed narrative report (see

Table 1 above). In example (10), the Swedish translation is a set phrase containing the verb *höra* ‘hear’, which has several uses referring to active request for information (see Viberg 2008: 149-151).

- (10) We’ll be *asking round* the village, anyway.(MW1)  
Men vi ska *höra oss för i* byn också. [hear us for in the village]

In practically all examples, *ask<sub>Q</sub>* is used to report a question. There are only a few examples where *ask<sub>Q</sub>* is used in a semi-performative way with a first person subject. Such examples are included in the category Rhetorical in Table 5 since they serve to modify and comment on the current utterance rather than to ask for information. In (11), the speaker does not wait for an answer to the question *may I ask*, which rather is used to signal an objection in this example.

- (11) “What’s wrong with watching the telly, *may I ask?*” the father said.(RD1)  
“Och vad är det för fel med att titta på TV, *om jag får fråga?*” sa hennes pappa.

Like most of the rhetorical examples, *may I ask* is a set phrase. This particular phrase has a close correspondent in Swedish *om jag får fråga/får jag fråga* ‘if I may ask’ / ‘may I ask’. Another rhetorical phrase is *if you ask me*, which is used as a kind of hedge to prepare the Addressee for controversial statements as in (12) or to add emphasis to what the speaker says as in (13) or express the speaker’s confidence in what is said as in another example, where *may I ask* is translated *jag är säker på* ‘I’m sure’.

- (12) That, *if you ask me*, is the main pleasure of adultery.(FW1)  
*Om ni vill veta vad jag tycker* så är det äktenskapsbrottets främsta njutning.  
[if you want to know what I think]
- (13) Too bloody long, *if you ask me*, he said.(DL1)  
Alldeles för förbannat länge *ska jag säga dig*, sade han. [shall I say you]

Set phrases with a semi-performative or rhetorical function is characteristic also of other basic VCVs (cf. Viberg 2016, Section 3.4 on Swedish *säga* ‘say’).

A special characteristic of *fråga* and of several other Swedish VCVs is that the Addressee cannot be passivized. One possibility to translate sentences with the Addressee as a passive subject as in (14) is to use a compound form of *fråga* with *till* ‘to’ (basically a preposition marking a destination or a receiver).

- (14) When Picasso *was asked* how he painted, he replied, “I do not seek, I find.”(DM1)  
När Picasso *blev tillfrågad* hur han målade, svarade han: “Jag söker inte. Jag finner.” [When Picasso became to-asked how...]

Another option is to use an active sentence as in (15), where an agent has been supplied from context and turned into a subject in the Swedish translation.

- (15) I remember when *he was asked* what the principal crop of Thailand was and he answered transistor radios.(JB1)  
Jag minns när *en lärare frågade honom* vad som var huvudnäringen i Thailand och han svarade transistorradior. [I remember when a teacher asked him what...]

### 3.2. The use of Swedish *fråga* to report a question

Swedish *fråga* corresponds very closely to *ask* in the sense ‘ask a question’. In no less than 325 cases (86%), *ask* is used as the translation (see Table 6). There are a few cases where *fråga* is translated with a more specific verb referring to the requesting of information: *inquire*, (*to*) *question* and *interrogate*. *Want to know* (or *hear*) as translation of *fråga* signals the request for information implicitly – like *undra* ‘wonder’ discussed above. The distribution of uses is very similar to that of *ask<sub>Q</sub>* shown in Table 5 above. Direct report and (clausal) Indirect report dominate completely followed by uses where there is no message..

**Table 6:** The uses of Swedish *fråga* and its major English translations in the ESPC

Swedish	English translations			
	Type of Message:	N	<i>ask</i>	<i>wonder</i>
Direct report	163	140	2	say (8), inquire (1)
Indirect report	113	100	2	want to know (4), question (1) want to hear (1)
Inner speech	16	9	6	question (1)
Non-clausal	6	5		
No message	73	64	1	inquire (3), interrogate (1)
Other	8	7		
<b>TOTAL</b>	379	325	11	

There is one use of *fråga* as a particle verb worth noticing. In combination with the spatial particle *ut* ‘out’, *fråga* refers to repeated, more or less exhaustive questioning. This is reflected in translations such as *question* and *interrogate* (see 16 and 17).

- (16) Hela kvällen **frågade** han **ut** mig, hur jag hade kommit fram till mina slutsatser; om det fanns andra som tänkte som jag, och en massa andra saker i samma stil.(BL1)  
He **questioned** me all evening, asked me how I had come to my conclusions, if there were other people who thought the way I do, and a lot of other things like that.
- (17) Nu började hon **fråga ut** Edla.(KE2)  
She began to **interrogate** Edla.

Interestingly, *fråga* is sometimes translated with *ask* in combination with an infinitive construction that is characteristic of the use of *ask* as a request verb (see Section 4). In (18), the complement of *fråga* is constructed as an *if*-S clause that signals an indirect report of a question, whereas the complement of *ask* in the English translation is restructured as an infinitive that expresses an indirect request to do something.

- (18) Berra dunkade mig i ryggen och **frågade om jag ville berätta** mera om mittpunktsnormalen.(PP1) [and asked if I wanted to tell more about NP]  
Bert clapped me on the back and **asked me to tell** them a bit more about the perpendicular bisector.

Another example of a restructuring of a question into a request to do something appears in (19). The meaning of *fråga efter pigplats* [lit. ‘ask after (a) position as maid’] is hard to describe but rather means ‘ask if there was a position as maid’. If that is the correct

interpretation,<sup>4</sup> this is an indirect request in Swedish. The English translation as in the previous example is restructured and expresses a request to do something.

- (19) - Tror du jag vill ha din doter i mitt kök, din skettlurka! sa gästgivarfrun när Sara Sabina Lans kom och *frågade efter pigplats* åt Edla.(KE2) [asked after a position as maid for Edla]  
 “How can you imagine I’d want your daughter in my kitchen, you filthbag!” was the answer Sara Sabina Lans got from Isaksson’s wife when she came to ask her to take Edla into service.

Examples of this type show that there is a close relationship – and sometimes even an overlap – between the two major senses of *ask*.

#### 4. *Ask used to report a request to do something*

English and Swedish both have a rather large number of directive verbs that report a request, but there is a basic pair of verbs that are used to report a polite versus an informal request. In English, the verbs *ask* and *tell* contrast in this way when they are combined with an infinitive complement, whereas Swedish uses the verb pair *be* and *säga* ‘say’ with an infinitive complement. As a background to the discussion of the many uses of *ask* as a request verb that will be presented in Section 4.2, the next section describes the contrast between *ask* and *tell* as a request verb, since this contrast appears to be basic.

##### 4.1. *The report of polite versus informal requests*

When making a request, the Speaker wants the Hearer to know that the Speaker wants the Hearer to carry out a certain act specified in the Proposition (P) expressed in the Message. To report a request, the two basic VCVs *tell* and *ask* can be used in a special construction. In this function, *ask* refers to a polite request to do something, which the Hearer is not obliged to carry out, whereas *tell* refers to something the Hearer is obliged (or at least ought) to do. The obligation could be based on an obligation imposed by the Speaker in an informal way or based on general social conventions or be based on what is in the best interest of the Hearer (*I told him to look out for the car*). It may be noted that *ask* and *tell* typically correspond to different types of direct requests (cf. Rudzka-Ostyn 1989: 631). A sentence such as *She asked me to open the window* most accurately reports a request expressed as a question (*Can you open the window?*) or containing a politeness marker (*Please, open the window!*), whereas a blunt imperative (*Open the window!*) most accurately is reported with *tell* (*She told me to open the window*). In actual practice, there is a wide range of alternatives, but idealized examples of this type point in the right direction. In Swedish, the closest correspondent to *tell* as a request verb is the use of the most general (nuclear) VCV *säga* ‘say’ in combination with one of the stressed particles *till* or *åt* (derived from prepositions meaning ‘to’), see example (20).

<sup>4</sup> Another interpretation is that it represents a parallel to *ask for* as a request described in Section 4.2. In any case, the example shows the close relationship between a question and a request.

- (20) Then she **told** Mum to leave.(BO1)  
Så **sa** hon **till** mamma att gå.

The closest equivalent of *ask* to report a polite request is the special request verb *be* as in (21).

- (21) I **asked** her to look into some of the other boxes,(DF1)  
Jag **bad** henne titta i några av de andra lådorna,

The canonical structure used to report a request is shown in Table 7. PRO in the syntactic frame refers to the understood Agent of the infinitive clause and the index (j) shows that the action referred to in the message is controlled by the NP functioning as object of the request verb.

**Table 7:** The canonical syntactic realization of a reported request

Frame elements	Speaker	Linguistic Action	Addressee	Message
<b>Syntactic frame 1</b>	NP <sub>i</sub>	Verb (Particle)	NP <sub>j</sub>	PRO <sub>j</sub> to-VPinf => PRO <sub>j</sub> att-VPinf
	She	told	mum	to leave.
	Hon	sa 'till	mamma	att gå.
	I	asked	her	to look in the box.
	Jag	bad	henne	(att) titta i lådan.

That there is a close relationship between *ask* as a question and *ask* as a polite request can be observed in (22).

- (22) She knocked on his door and **asked if** he would be kind enough to show her the famous bird.(RD1)  
Hon knackade på och **frågade om** han ville vara så snäll och visa henne sin omtalade fågel.

It is conceivable that (22) might be a report of a speech act such as *Would you be kind enough to show me the famous bird?* Both in English and Swedish, this could have been reported also in the form of a request, which requires a shift to the verb *be* in Swedish: *She asked him to show her the famous bird / Hon bad honom visa (henne) sin berömda fågel.* There is also a very close relationship between the use of *tell* as an information verb and *tell* as a request. In (23), the English original text has a that-S complement that informs the Addressee what the speaker considers to be necessary to do signaled with a modal (*must*). The Swedish translation in this case has complement that is restructured into an infinitive complement of the type characteristic of requests.

- (23) Now that he had gained for them the treasure of land, they were willing to begin listening to him when he **told** them that they must stop the practice of burning trees, which had been going on for thousands of years.(LT1)  
/---/ när han **sade åt** dem att sluta bränna träd, [when he said to them to stop burn trees]

In English, it is possible to realize the message as an infinitive complement introduced by a question word (Wh) as in (24). This structure does not exist in Swedish and requires a restructuring of the complement into an *att*('that')-S complement containing a modal (usually a form of *ska* 'shall' with the past form *skulle*).

- (24) Even when he wasn't there, he'd **tell** her what to do in letters.(AH1)  
Till och med när han inte var hemma skrev han och **sade till** henne vad hon **skulle** göra.

When this complement is used with *ask* it refers to a request for instructions or advice and *fråga* could be used in the Swedish translation: *She asked him what to do => Hon frågade honom vad hon skulle göra* 'She asked him what she should do')

The translation pattern of *tell* used as a request verb is less complicated than for *ask* and is summed up in Table 8. The corresponding use of *ask* will be summed up in the following section together with its many other uses as a request verb.

**Table 8:** The translation pattern of *tell* as a request verb

	tell	Swedish translations			
Request Total	52	säga åt/till	be	uppmåna	tala om för
tell NP to-VPinf	44	21*	6	2	0
Tell NP Wh to-VPinf	8	4	1	0	3

\*) Two restructured translations: att-S [ska], Wh-S [ska]

The use of *säga till/åt* in Swedish originals shows that *tell* is the most frequent correspondent, see Table 9.

**Table 9:** The translation pattern of Swedish *säga 'till/åt*

	säga till/åt	English translations				
Request Total	28	tell	ask	instruct	say	Other
NP to-VPinf		10		1		
Other		8	1		3	5

When *säga till/åt* has an infinitive complement it practically always reports a request and is translated with *tell* in a congruent structure. Sometimes a request is also reported in a full *att* ('that')-S clause as in (25).

- (25) Han **sa till** mig att jag skulle skissa på tillbyggnaden.(CE1) [that I should sketch]  
He **told** me to sketch the extension.

In (26), *säga till* is translated simply with *say*. The that-S clause in this case does not tell the Addressee what to do, but describes what the Speaker wants in a way that by implication represents an indirect request not to disturb.

- (26) - Jag **sa** ju **till** att vi inte ville bli störda, sa Björk.(HM2) [that we not wanted be disturbed]  
"I **said** we shouldn't be disturbed," said Björk.

#### 4.2. The many uses of *ask* to report a request

Rudzka-Ostyn (1989) distinguishes a number of interrelated senses organized into a schematic network around *ask<sub>R</sub>* – *ask* used to report a polite request. These are shown in Table 10. The letters will be used as a reference also in Table 11, which shows the frequency of the various senses of *ask<sub>R</sub>* and their major translations.



**Table 10:** A network of meanings related to *ask* as a polite request verb (Rudzka-Ostyn 1989: 631-632)

- a. EXPRESS VERBALLY AND IN A POLITE MANNER A DESIRE (P) THAT THE HEARER DO SOMETHING AND THEREBY TRY TO CAUSE HIM TO DO IT
- b. P BENEFITS SPEAKER
- c. P= THAT HEARER COME
- d. P= THAT HEARER COME FOR SPEAKER'S BENEFIT
- e. P = THAT HEARER COME FOR HEARER'S BENEFIT
- f. P= THAT HEARER GIVE SPEAKER WHAT BENEFITS SPEAKER
- g. P = THAT HEARER ALLOW SPEAKER TO DO WHAT BENEFITS SPEAKER
- h. P = SPEAKER CONTACT OR BE PUT IN CONTACT WITH SOMEBODY FOR SPEAKER'S BENEFIT

The general meaning, which is shared by all instances of *ask<sub>R</sub>*, is described in (a). P refers to the proposition that describes the speaker's desire and in order to be a request the desire must be that the hearer should do something. This condition is fulfilled in most cases when the Message is realized as an object-controlled infinitive as described in the previous section. In the prototypical case (b), what is done benefits the Speaker. The most frequent Swedish translation is the verb *be* appearing in a congruent structure as in (27).

- (27) Sometimes a woman would *ask* my father to "speak to" her husband.(NG1)  
 Ibland hände det att en kvinna *bad* min far "tala" med hennes man.

However, there are some clear examples such as (28), where the action does not benefit the Speaker.<sup>5</sup>

- (28) I'll *ask* an officer to go out with you when we've finished.(MW1)  
 Jag ska *be* en polis gå med er dit ut när vi är färdiga.

Table 11 shows the frequency of occurrence of the senses of *ask<sub>R</sub>* and their Swedish translations. Senses (a) and (b) are presented together, since it is not always possible to decide from the concordance lines if what is to be done really benefits the Speaker. (Thus, "Benefit of Speaker" in the right column does not hold in an absolute sense, but refers to the typical interpretation.)

The rest of the senses refer to more fine-grained distinctions and are signaled by specific constructions. When the Message is condensed to *for* + NP (sense f), the desire is for the Hearer to give Speaker what benefits Speaker as in (29). The translation with the verb *be* uses a congruent structure with the preposition *om* + NP – the same preposition that marks a Topic.

- (29) At a junction I *asked* a food-seller *for* water.(BO1)  
 I en vägförskning *bad* jag en matförsäljerska *om* vatten.

<sup>5</sup> The interpretation may be a little bit tricky. (28) does not report an act that benefits the Speaker or the Hearer ("an officer") of the speech act reported on (the primary speech act) but is an act that benefits a third party ("you"), which happens to be the Hearer of the report (the secondary speech act).

**Table 11:** The senses of *ask* reporting a request and their major translations in the ESPC

Meaning	Construction	N	Major translations	N
<b>POLITE REQUEST</b>				
<i>Benefit of Speaker</i>				
Polite request, general (a,b)	ask NP to VP <sub>inf</sub>	70	be NP (att) VP <sub>inf</sub> be att-S	50 1
Ask to be given (f)	ask for NP	36	be om NP / be att få NP begära NP <sup>abstract</sup> (Formal)	20 6
Ask permission (g)	ask to VP <sub>inf</sub>	10	be att få VP <sub>inf</sub> be om NP anhålla/begära att få VP <sub>inf</sub>	4 3 2
Ask for contact (h)	ask for NP <sup>human</sup>	1	be att få tala med NP <sup>human</sup>	1
<i>Benefit of Hearer</i>				
Invitation (e, partly)	ask NP Particle/ ask NP to-VP <sub>inf</sub>	11	bjuda Particle + NP/PP be NP VP <sub>inf</sub>	8 2
<i>Other</i>		15	be	5
<b>TOTAL</b>	ask <sub>Q</sub>	143	be	86

Often what is asked for refers to an abstract concept (*ask for advice / be om råd; ask for an interpretation / be om en tolkning*). Related to this use are a few examples where what is asked for appears in the object slot:<sup>6</sup> *ask s.o.'s opinion, ask s.o.'s consent*. In Swedish, the preposition cannot be left out: *be om någons åsikt / be om någons medgivande*. In one case, there is a paraphrase: *he telephoned to ask my opinion* translated *han hade ringt mig för att få ett råd* ‘/---/ to get a (piece of) advice’

In (30), another verb *begära* is used in the translation. This verb takes an abstract noun referring to the desired action as an object: *begära stöd* ‘demand support’ and is used to report a formal requests.

- (30) Montgomery himself must accept responsibility for one major Allied misfortune at this time: he **asked for**, and received, the **support** of the US First Army to secure his right flank.(MH1)  
Han **begärde** och fick **stöd** av USA:s Första armé för att säkra sin högra flank.

In several examples, *begära* is combined with nouns referring to formalized procedures in institutional contexts: *ask for an adjournment / begära uppskov; ask for a ruling / begära ett avgörande*. There are also three non-literal uses where *ask for* is translated with rather colorless paraphrases: *ask for it => vara vad någon förtjänar* ‘be what someone deserves’ and *ask for trouble > utsätta sig för* ‘expose oneself to (something bad)’ *orsaka besvär* ‘cause trouble’. A specialized verb is used also as a translation of *ask for money / tigga pengar* (‘beg money’ cf. *tiggare* ‘beggar’).

In the examples analyzed so far, the Speaker asks the Hearer to do something, but, actually both *ask* and *be* can be used when the Speaker wants the Hearer to give the Speaker permission to do something. In (31), the Message refers to an act by the Speaker.

<sup>6</sup> These examples are included in the category Other in Table 11

- (31) If I hadn't *asked to speak* to her, would you ever have told us she'd left you?(AT1)  
Om jag inte hade *bett att få tala* med henne /---/

In examples of this type, *ask* does not have an object referring to the Addressee and the reference of the understood Agent of the infinitive is controlled by the subject of *ask* as shown with indexes in Table 12.

**Table 12:** Subject-controlled infinitive complements.

Frame elements	Speaker	Linguistic Action	Addressee	Message
<i>Syntactic frame 3</i>	NP <sub>i</sub>	Verb	--- (NP <sub>j</sub> )	PRO <sub>i</sub> to-VPinf = > PRO <sub>i</sub> att få VPinf
	I	asked		to speak to her
	Jag	bad	(honom) 'him'	att få tala med henne to get speak with her

If there had been an explicit Addressee in English in example (31), there would have been a change of reference and the understood Agent in the Message would refer to the Addressee rather than the Speaker: *I asked him to speak to her*. In Swedish, there can be an explicit Addressee without any change in reference as long as *få* appears in the infinitive complement: *Jag bad honom att få tala med henne* ('I asked him to get (to) speak to her'). In Swedish, the reference to the Speaker as Agent is expressed by using the verb *få* 'get' as a modal with permissive meaning ('be allowed'). If *få* is left out, the Addressee (as in English) is interpreted as Agent: *Jag bad honom att tala med henne* 'I asked him to speak to her'. The restructuring can be illustrated with two examples from the same text. In Swedish, *få* 'get' is used to ask permission as in (32).

- (32) "May I examine it?" he asked,(OS1)  
"Får jag undersöka det?" frågade han,

In the English novel from which this example is taken, the same speech act is reported as an indirect report of a question (33). The Swedish translation is restructured as an indirect report of a request.

- (33) He *asked* if he *might* examine it,(OS1)  
Han *bad* att *få* granska den [He asked to get (to) examine it]

In (34), a similar example is translated into Swedish with a full *om*('if')-S structure. In that case, *fråga* must be used as a correspondent of *ask*.

- (34) She *asked* if she *might* sit awhile and read a book.(RD1)  
Hon *frågade* om hon *fick* sitta där en stund och läsa en bok.

When the NP refers to a person (sense h), the construction *ask for* NP can refer to the request that the Speaker be put in contact with someone as in (35).

- (35) She retrieved the telephone, dialled Learmouth Police Station and *asked for* Detective Sergeant Cooper.(MW1)  
 Hon lyfte telefonluren, slog numret till polisstationen i Learmouth och *bad att få tala med* kriminalinspektör Cooper.

The Swedish translation is restructured and uses the construction that expresses a request to be permitted to do something (*be att få VPinf*), in this case to speak to a certain person. Swedish can also use *fråga* with the preposition *efter* ‘after’ as in (36). This example shows how *be* and *fråga* in some cases can be used to express the same specific meaning of ask provided that the verb appears in a construction that is characteristic of the verb.

- (36) Och där skulle hon *fråga efter* nån som hette Agnes Cecilia.(MG1)  
 When you get there, you should *ask for* someone by the name of Agnes Cecilia.

The use of narrative reports, where the message is presented in very condensed form, is characteristic of *ask*. There is a special construction, where *ask* is combined with a spatial particle or PP. Rudzka-Ostyn (1989) distinguishes three different senses of *ask* (c-e) when it appears in this construction, all containing the Proposition THAT HEARER COME (see Table 10). There are no examples in the corpus of the first two senses, but the most natural translation into Swedish appears to be the one expressing a polite request in general (*be NP VPinfinitive*), since *be* cannot appear in a congruent construction. See, for example, the translation shown in (37) of sense (d) – that hearer come for speaker’s benefit.

- (37) Ask the maid up. (Rudzka-Ostyn 1989: 630)  
 Be hembiträdet (att) komma upp [‘Ask the maid to come up’] (My translation)

The most interesting of these senses is (e), which is exceptional since it refers to an action that is carried out to the Hearer’s benefit. It is interesting also because a specific verb *bjuda* ‘invite, offer, treat so to sth’ is the most direct translation. This verb prototypically refers to something which is to the Hearer’s benefit. It can also appear in the same construction as *ask* with a spatial particle or PP. In (38), the proposition refers to a wish for the hearer to come to a certain place (their home) and – as usually is the case with this construction – some activity connected to the place is referred to (‘have supper’) or implied (in some other examples).

- (38) So this man and his wife, they *asked* the granny *round for* supper.(JC1)  
 Så den här mannen och hans fru *bjöd in* farmodern *på* lite kvällsmat.  
 [invited in the granny for (‘on’) a little supper]

Swedish *bjuda* can be combined with a spatial particle in a construction that is congruent with that of *ask*, but this is not possible with *be*, which requires a restructuring to an infinitive construction, when it is used as a translation in (39).

- (39) “You might have *asked* her *in*.”(AT1)  
 “Men Macon, du kunde väl ha *bett* henne stiga in.” [asked her step inside]

Semantically, *be* differs from *bjuda* by lacking the feature HEARER’S BENEFIT (category c in Table 10). If *bjuda in* had been used as a translation, it would have implied that the speaker

would act as a host in some sense (for example, by showing her around or serving coffee). Example (40), taken from a book on the experience of Sweden from a foreigner's perspective, presupposes a traditional scenario where prospective dancing partners are sitting around the dance floor waiting to be asked to get up and dance.

- (40) Once again the Swede met the challenge and *asked* the girl *to dance*.(JPM1)  
 Än en gång antog svensken utmaningen och *bjöd upp* flickan. [invited up the girl]

## 5. The verb *be* and other Swedish directive verbs

This section accounts for all the uses of *be* and *bjuda* and *begära* – the major correspondents of *ask<sub>R</sub>* – in order to see to which extent these verbs cover the same meanings as *ask*.

### 5.1. *be* ‘ask politely’

As shown above, *be* corresponds to *ask* when that verb refers to a polite request. All the uses of *be* in the original Swedish texts in the ESPC are shown in Table 13 together with the English translations. The most frequent use is to report a polite request and in this case the dominant translation is *ask*. Direct reports occur only with low frequency and the same applies to indirect reports realized as that-S clauses. The most frequent realization of the Message is the Infinitive clause followed by the non-clausal realization *be om NP* ‘ask for NP’. The pattern mirrors to a great extent what was found above for *be* as a translation of *ask*. Only in a few cases is a more special verb than *ask* used as a translation: *pray*, *beg* and *urge*.

Asking Permission to do something is a special case of polite request that has been singled out because it requires the use of *få* in the infinitive complement (see Table 12 above). There are some uses of *be* where *ask* is not used as a translation. One such use is referred to as Pray in Table 13 and occurs when *be* is used to report a prayer as in: *Hon bad inte till Gud* (MR1) translated *She didn't pray to God*. A topic can be introduced in the ordinary way with *om*: *be om seger* ‘pray for victory’. When it refers to praying, *be* can also take a noun referring to a prayer as object; *be bordsbön* – *say prayer* or *be* used without any complement as in the following translation from English: *He was praying*. (RDO1) translated as: *Han bad*.

Another special use of *be* is to report an apology as in: *morsan bad om ursäkt*.(PP1), which is translated: *Mum said she was sorry*. In Swedish, this is just a special case of a condensed polite request using *be om NP* ‘ask for’ NP. *Be om ursäkt* can also be translated with the simple verb *apologize* (see 41).

- (41) De gånger jag har träffat honom verkar han som om han *bad om ursäkt för* att han fanns till.(SW1)  
 The times I've run into him, it always seems as if he wanted to *apologize for* simply existing.

There are also a few examples where *be* is used performatively. In (42), it is used to make an apology.

- (42) - *Jag ber om ursäkt*, sa han.(HM2)  
 “I'm sorry,” he said.

*Jag ber om ursäkt* ‘I ask for forgiveness’ is the formula in Swedish corresponding to *I’m sorry* in English. Another performative use *Får jag be om* ‘May I ask for’ is a rather formal politeness marker. Example (43) appears in the context of a court hearing.

- (43) - *Får jag be om* ert fullständiga namn. (MPC:HN) [may I ask for your full name]  
 ‘What is your full name, *please*?’

**Table 13:** The uses of Swedish *be* and its major English translations

Meaning	Construction	N	Translation	N
<b>REPORT</b>				
<i>Polite request</i>				
	<i>Direct report</i>	2	ask say	1 1
	<i>Indirect report: Clausal</i>			
	<i>be</i> NP (att-)S	4	ask pray	2 2
	<i>Infinitive complement</i>			
	NP <sub>i</sub> <i>be</i> NP <sub>j</sub> (att) PRO <sub>j</sub> VP <sub>inf</sub> (att 13, Zero 27)	40	ask urge (formal)	34 3
	<i>Narrative report</i>			
	<i>be om</i> NP	19	ask (for NP)	13
	Message understood or pronominal	6	ask	3
<i>Asking permission</i>	<i>Infinitive complement</i>			
	NP <sub>i</sub> <i>be</i> (NP <sub>j</sub> ) (om) att få PRO <sub>i</sub> VP <sub>inf</sub>	7	ask beg	5 1
<i>Pray</i>	<i>be</i> (till Gud)	8	pray (to God)	6
<i>Apology</i>	<i>Narrative report</i>			
	<i>be om ursäkt</i> ‘ask for forgiveness’	4	apologise, say + sorry	2 2
<b>PERFORMATIVE</b>				
<i>Politeness marker</i>				
		4	please I pray	2 1
<i>Apology</i>			I’m sorry	1
<b>TOTAL</b>	<i>be</i>	94	ask	58

## 5.2. *bjuda* ‘invite’, *begära* ‘request’

This section is devoted to the two verbs *bjuda* and *begära* that were used as translations of *ask<sub>R</sub>* besides *be*. As can be observed in Table 14, *ask* is not the most frequent translation of these verbs. *Bjuda* rather corresponds to *offer* and *invite* and *begära* to *request*. In order to describe the meaning of these verbs it is necessary to briefly discuss some of the major parameters that organize the contrasts between the directive verbs in general. As mentioned above, the distinguishing feature between *be* and *bjuda* is that the request refers to something that is, respectively, to the benefit of the Speaker or to the Hearer. Like *ask*, *be* and *bjuda* both

are used when the right to impose an obligation on the Hearer is not taken for granted by the Speaker. That is, however, the case when verbs such as *require* and *demand* (Swedish *kräva*) are used. None of these presuppose any formalized or institutionalized social relationship or order-of-command between Speaker and Hearer such as the verb *order*. In Swedish, two different verbs are used that are based on different institutionalized roles. *Beordra* is used when there is an order-of-command (prototypically in the military) and *beställa* is used when the relationship between Speaker and Addressee coincides with that of Customer and Service provider ('to order goods or services').

**Table 14:** The major translations of *bjuda* and *begära* in the ESPC

<b>bjuda</b>		<b>begära</b>	
Total	54		39
<i>Major translations</i>		<i>Major translations</i>	
ask	2	ask	8
offer	15	request	14
invite	13	expect	6
		demand	3

The most frequent translations of *bjuda*, *offer* and *invite*, both indicate that the Message describes something that is beneficial for the Addressee. (44) is one of the two examples translated with *ask* and are translated with a combination of *ask* and a spatial particle of the kind that was discussed in Section 4.2.

- (44) Varför *bjöd* du *ut* mej?(JG1)  
Why did you *ask* me *out*?

Conceptually, *bjuda* is a blend of several types of verbs. It is a verbal communication verb, because an offer is presented verbally. In (44), the Addressee is asked to do something pleasant together with the Speaker (such as to go to a restaurant for a date). The translations of *bjuda* are interesting, since in many cases they require a partial reconceptualization combined with a restructuring on the grammatical level. In the English translation of (45), the Addressee is also asked to do something in a condensed form (to come over to someone's home). The argument marked with *for* indicates something that the Addressee will be given. In the Swedish version, *bjuda* has an argument marked with the preposition *på* 'on' corresponding to this argument. A literal translation would rather be: 'We have been offered afternoon coffee up at Percy's and Elsa's'. The request to go there is only implied.

- (45) För vi är nämligen *bjudna på* eftermiddagskaffe uppe hos Percy och Elsa(ARP1)  
'We've been *asked over* to Percy's and Elsa's *for* afternoon coffee.'

When this construction is used, *bjuda* partly is a verb of giving. This is reflected in an expression such as *Jag bjuder* 'It's on me' used when someone offers to pay the bill for the whole group. The argument marked with *på* 'on' represents what is given and this is clearly reflected in the translation of (46), where the preposition *to* marks the corresponding argument in the translation.

- (46) Okej, jag **bjuder på** fika nånstans på Djurgårn.(JG1)  
 Okay, I'll **treat** you **to** coffee somewhere in Djurgården.

As a Verbal communication verb, *bjuda* is primarily used to present narrative reports with a condensed realization of the message. This applies as well to the cases where *bjuda* is translated with *invite* and *offer* (see 47 and 48).

- (47) “Hörde du, torsken vill **bjuda** oss **på** middag!” meddelade hon glatt.(JG1)  
 “Did you hear that? The sucker wants to **invite** us **to** dinner!” she reported cheerfully.
- (48) Främlingen **bjöd** sen gubbarna **på** var sitt glas.(SC1)  
 Then the stranger **offered** the old men a drink.

*Bjuda* can also refer to a bid at an auction or to the offer to pay a certain sum for product in a business negotiation (‘to say that one is willing to pay a certain sum for an object’). The verb then is used in the frame *bjuda* PRICE för GOODS, where the sum of money appears in the object slot as in the English translation with the verb *offer* in (49).

- (49) Dom hade **bjudit** tjugofem kronor.(SC1)  
 They had **offered** twenty-five kronor.

In this particular use *bjuda* is in a converse relation to *begära* (like the pair ‘buy’ – ‘sell’), since *begära* can take the Seller as subject: *Peter begärde 100 dollar för cykeln* – *Peter asked \$100 for his bike*. *Be om* – the usual correspondent to *ask for* – does not sound completely appropriate in this context, since – in addition to referring to a polite request – *be* has a relatively strong entreating component (like *beg* – but perhaps a little weaker. As mentioned, *be* can also refer to praying.) *Begära* suits better to refer to a negotiation between equal partners. As noted in Section 4.2, *begära* ‘demand’ is used as a translation of *ask* also in institutional settings, when *begära* is combined with an abstract noun (*begära ordet* ‘ask to speak’ / *begära uppskov* ‘ask for a delay’). The most frequent translation of *begära* is the verb *request* (see Table 14 above), which is a polite but formal directive verb. In most cases, *request* is used as a translation of combinations of *begära* + abstract noun: *begära skadestånd* ‘request compensation’, *begära upplysningar* ‘request information’, *begära klarläggande* ‘request clarification’. *Begära* can also take a *that*-S clause as complement as in (50), but not an infinitive complement.

- (50) Skyddsombudet kan också **begära** att en viss undersökning skall göras för kontroll av förhållandena inom skyddsområdet.(ARBM1)  
 The safety delegate can also **request** that a certain investigation be carried out to verify conditions within his safety area.

### 5.3. Summing up the contrasts between *ask* and its Swedish correspondents

Swedish divides up the linguistic functions covered by *ask* between the verb *fråga*, which reports questions, and *be* and some related verbs, which report requests. The lexical contrasts in Swedish have parallels in the choice of constructions both in Swedish and English. The verbs *fråga* and *ask<sub>Q</sub>* are frequently used with direct reports and clausal indirect reports,



whereas *ask<sub>R</sub>* and *be* only in a few cases are used with these complements but typically are used with infinitive complements. In addition, the verbs (in particular when they refer to requests) are used in more or less lexicalized phrasal combinations as phrasal, prepositional or support verbs. Such combinations form less regular patterns but have meanings that can be related to the prototypical meanings of the verbs. There is a close semantic relationship between the functions of *ask* symbolized as *ask<sub>Q</sub>* and *ask<sub>R</sub>*. This is reflected in the fact that indirect reports of questions sometimes are restructured as indirect reports of requests in the translations (see examples 18, 19 and 33 above) owing to the use of questions to express polite requests.

## 6. The verbs of answering

The verbs of answering are the major example of reactive verbal communication verbs, i.e., verbs that presuppose or respond to a prior speech act (e.g. *ask a question – answer, claim – refute, deny*). The concept of answering forms a conceptual network which is similar in English and Swedish but contrasts with respect to the way meanings are divided up between various verbs. English has several verbs of answering, which all have complex networks of meanings, as shown by Rudzka-Ostyn (1995) in her detailed study of the verbs *answer, reply, respond, rejoin* and *retort*. The English verbs of answering share a single Swedish verb *svara* as a major correspondent. This verb has several derived forms that partly have other correspondents than the English verbs of answering, but are organized around underlying conceptual structures that are closely related: *försvara* ‘defend’, *ansvara (för)* ‘be responsible (for)’ and *motsvara* ‘correspond’.

### 6.1. Schemas and frames

Asking questions is closely related to giving answers. In discourse analysis, question and answer are regarded as a basic type of adjacency pair. As a verbal communication verb used to report speech, *answer* is special since it presupposes very strongly a question, even if it is not always explicit in the context as in (51) and (52).

- (51) I *asked* him why he and Sarah have no children, and he *answered*: “Because I’ve never had the urge to play God.”(MW1)
- (52) I remember when he was *asked* what the principal crop of Thailand was and he *answered* transistor radios. (JB1)

In Rudzka-Ostyn’s (1995) analysis, the conceptual networks of the verbs of answering are organized around two schemas. The prior-subsequent schema accounts for the requirement of a prior act, but is rather general. For example, it is one of the preconditions for the relation between cause and result. The correspondence schema accounts for the close relationships between specific elements of the prior act and specific elements of the response. In straightforward examples such as the ones above, the reason given in the answer in (51)

corresponds to “why” in the question and in (52) “transistor radios” provides the missing information in the question (“what”).

In FrameNet, the verbs of answering evoke the frame *Communication\_response*. This frame inherits the structure of the more general *Response* frame, which is defined as follows: “An Agent performs a Response action in consequence of a Trigger event.”<sup>7</sup> The Trigger corresponds to the prior act in the prior-subsequent schema, but is more specific in a way that is specified in the correspondence schema. Table 15 shows the model adapted from FrameNet that will be used for the analysis in this paper. (Note that the frame elements can be realized in any order. The linear arrangement has been specially tailored for expository purposes only.)

**Table 15:** *The Communication Response frame*

<b>Response frame:</b>	<b>Trigger</b>	<b>Agent</b>	<b>Response action</b>			
	↓	↓	↓			
<b>Communication Response frame</b>	<b>Implicit verbal Trigger</b>	<b>Speaker</b>	<b>Speech act</b>	<b>Addressee</b>	<b>Message</b>	<b>Trigger</b>
	QUESTION	Peter	answered	me	that he was tired	
	QUESTION	Peter	answered			my question
	QUESTION	Peter	didn't reply			to the question
	ACCUSATION	Peter	answered			the accusation

Since the analysis will be based only on sentences containing the verb of answering and its arguments, the Trigger will often be implicit as indicated in the column to the left in Table 15. In some examples from the ESPC as in (51) and (52) above, the Trigger appears in the previous discourse, but it seems as if the Trigger must be pragmatically derived from context in many of the examples from the corpus. The Trigger can also be realized as an argument of the verb, variously realized as a direct object after *answer* (*He didn't answer my question*) or as a prepositional object after *reply* (*He didn't reply to my question*). Such arguments always point back to the previous context, which must contain an explicit or implicit Trigger for the text to be coherent.

## 6.2. *The English verbs of answering*

There are only 72 occurrences of *answer* as a verb in the ESPC, but the examples accounted for in Table 16 suffice to show the most frequent uses.

In the majority of cases, the Trigger is a prior utterance and *svara* is used as a Swedish translation. One difference is that the Trigger is realized as a direct object in English when it is explicitly mentioned, whereas it requires the preposition *på* ‘on’ as a marker in Swedish (see 53).

<sup>7</sup> The definition continues: In many cases, a non-agentive *Responding\_entity* causes the Response after the Trigger occurs. The definition of the *Communication\_response* frame runs: This frame deals with a Speaker communicating a reply or response, a Message, to some prior communication or action, the Trigger.

- (53) Rather than *answer this question*, Marjorie reverts to an earlier one.(DL1)  
 Istället för att *svara på frågan* återgår Marjorie till den tidigare.

**Table 16:** The uses of answer and its major translations in the ESPC

English answer		Swedish translations			
Trigger:		N			
PRIOR UTTERANCE		39	svara	33	besvara 3
PRIOR UTTERANCE:	as object	14	svara på	5	besvara 8
PRIOR UTTERANCE:	Contested	3	säga emot	2	ge svar på tal 1
PRIOR UTTERANCE:	Critical	3	bemöta 'meet'	3	
PHONE SIGNAL		6	svara	4	
DOOR SIGNAL		3	öppna dörren 'open the door'	3	
WISH		1	bönhöra 'hear a prayer'	1	
CRIME		1	lösa 'solve'	1	
REPREHENSIBLE PRIOR ACT		2	stå till svars 'stand to answer <sub>N</sub> '	2	
<b>TOTAL</b>	answer	72	svara	42	

As an alternative, the Trigger can be realized as a direct object also in Swedish by using *besvara*, which is a form of *svara* derived with the applicative prefix *be-* (see 54).

- (54) He was a genial soul, very ready to talk and to *answer any questions* I asked him.(OS1)  
 Han var en sympatisk själ som gärna pratade och *besvarade allehanda frågor* jag ställde till honom.

There are some examples where the Swedish translation incorporates special aspects of the meaning signaled by *answer* used in special constructions or used in special contexts. Examples (55) and (56) show translations of *answer* used as a phrasal verb *answer back* that signals that the Trigger contains contested information. *Säga emot* (lit. 'say against') and *ge svar på tal* ('give answer on speech') can be used to express the corresponding meanings in Swedish.

- (55) Never *answer her back*.(RD1)  
*Säg* aldrig *emot* henne. [say never against her]
- (56) only Abe never sulked, he had the gift of the gab, he *answered back*.(MD1)  
 han var begåvad med en rapp tunga, han *gav svar på tal*, [gave answer on speech]

Another translation tied to a specific context is *bemöta* (a prefixed form of *möta* 'meet') combined with an abstract noun. This translation is used when the Trigger contains criticism that is rejected as in (57).

- (57) I had designed them to *answer the criticism* of Ford Doolittle and Richard Dawkins that Gaia was teleological.(JL1)  
 Jag gjorde den för att *bemöta den kritik* jag hade fått från Ford Doolittle och Richard Dawkins /---/

As demonstrated by (58), this type of translation is not tied to the translation of any specific abstract noun such as *criticism* but can be used as soon as the semantic criterion is satisfied.

- (58) I cannot say the same, however, for her unwelcome slurs on my colleague Mr Elles, particularly as he is not here to **answer** them.(ECH11)  
/---/ i synnerhet eftersom han inte är närvarande för att **bemöta** dem.

Very specific is the translation when the Trigger refers to a prayer as in (59), where Swedish uses a compound verb as translation: *bönhöra* (*bön* ‘prayer’ + *höra* ‘hear’).

- (59) And then, miraculously, her prayer **was answered**.(PDJ1)  
Sedan **blev** hon på ett mirakulöst sätt **bönhörd**.

The Trigger can also be some kind of non-verbal signal. English and Swedish are similar when the Trigger is a phone signal (see 60).

- (60) Många signaler gick fram innan fru Wallin **svarade**.(HM2)  
The phone rang for some time before the widow **answered**.

When the signal comes from the door bell (or a knock on the door), Swedish uses the expression (*gå och*) *öppna* ‘(go and) open’ as in (61).

- (61) She’d **answered** the door.(RDO1)  
Hon hade **öppnat** dörren.

Table 17 shows the translations of all the verbs of answering in English. (*correspond* has been added since it will be discussed in Section 6.3.)

**Table 17:** Translations of the English verbs of answering in the ESPC

<i>English verb</i>	<b>answer</b>	<b>reply</b>	<b>respond</b>	<b>retort</b>	<b>rejoin</b>	<b>correspond</b>
Total	72	57	30	1	0	21
<i>Translations:</i>						
<b>svara</b>	44	47	9	1		
<b>besvara</b>	11	1				
ge <b>svar</b> <sub>N</sub> ‘give answer’	5					
<b>motsvara</b>						19
säga ‘say’	2	5	1			
reagera ‘react’			8			
Other	10	4	12	0	0	2

The verb *reply* usually describes the response to a question as trigger and is translated with *svara* in the majority of cases (47 out of 57). In a high proportion of the examples (39 out of 57), the Message is realized as a direct report (see 62).

- (62) He had instantly **replied**, “No, Your Majesty.”(ST1)  
Han hade omedelbart **svarat**: “Nej, Ers Majestät.”

The presence of a direct report makes it natural to use *säga* ‘say’ as a translation of *reply* in 5 examples (see 63). However, this is a rather small proportion of the total number of examples.

- (63) “That so, Evvie?” George **replied** since some reply seemed necessary.(SK1)  
“Jaså du, Evvie”, **sa** George Meara eftersom hon verkade vänta sig ett svar.

The verb *respond* is also used as a verbal communication verb with *svara* as a translation (see 64), but this rather represents a special use of the verb in certain contexts. Its meaning should probably be connected directly to the general response frame, since the Trigger in many cases is non-verbal. Swedish *svara* can be used even in such cases (see 65), but the most frequent translation is *reagera* ‘react’ (see 66).

- (64) And so would he, responded Alexander, were he not Alexander.(JH1)  
Och det skulle han också göra, svarade Alexander, om han inte vore Alexander.
- (65) they [the Americans] **responded** coolly and decisively **to** the Mortain assault.(MH1)  
Amerikanerna **svarade** kyligt och beslutsamt **på** angreppet vid Mortain.
- (66) Usually they’ll **respond to** treatment.(AH1)  
I vanliga fall **reagerar** de **på** behandling.

Note that the usual marker of the trigger is used in the last two examples (*to* in English and *på* ‘on’ in Swedish). It can also be remarked that *svara* can be used as a translation of *react* in many cases, in spite of the fact that the trigger is non-verbal as in (67).

- (67) I **reacted with** one of those little jumps you do when you open the evening paper and a spider runs out.  
(SG1)  
Jag **svarade med att** hoppa till på det sätt som man gör när man öppnar kvällstidningen och en spindel kilar fram.

There is only one example of *retort* in the ESPC (see 68) and *rejoin* only appears once as a translation of *svara* (in a Swedish original, see 69). According to Rudzka-Ostyn (1995), these two verbs tend to express disagreement with a prior utterance, but this is not clearly reflected in the few examples in the ESPC. Nevertheless, these examples show the great range of correspondents to *svara*, when it is used as a verbal communication verb.

- (68) Perhaps he’d like to **retort**: “I like you too”?(BR1)  
Kanske skulle han vilja **svara**: “Jag tycker om er också”?
- (69) — Då halshugger man oss, **svarade** han buttert.(KOB1)  
“If we did, they’d chop our heads off,” he **rejoined** sullenly.

Actually, there are a few rather infrequent verbal communication verbs with a specialized meaning that can serve as alternatives to *svara* in Swedish such as *genmäla* in (70) och *replikera* in (71).

- (70) Kronprinsen måste skyddas, hade Rantzau då kyligt **genmält** eftersom han inte fann att detta var ägnat för skämt.(MPC:POE2)  
“The Crown Prince must be Protected,” Rantzau **retorted** coldly, since he didn’t find it a suitable topic for jest.
- (71) “Det säger du varje år”, **replikerade** Birger.(MPC:KÖ)  
“You say that every year,” **replied** Birger.

### 6.3. Swedish *svara* and its derived forms

Interestingly, Swedish *svara* is etymologically related to *answer*. According to OED, *answer* has developed from Old English *swērian* ‘to affirm, swear’ in combination with *ant-* ‘against’ and the original meaning was a solemn affirmation made to rebut a charge. In present-day Swedish, there is an unlauded form *svära* derived from *svara*. Like its English cognate, *svära* ‘swear’ can mean both ‘to curse, use bad language’ and ‘take an oath’. The degree to which *answer* and *svara* still correspond semantically in present-day Swedish can be observed in Table 18, which shows the translations of *svara* in various uses.

**Table 18:** Translations of the Swedish verb *svara*

Meaning of <i>svara</i>		English translations						
<b>Verbal communication</b>		N						
prior utterance implicit		241	answer	68	reply	86	say	63
prior utterance explicit	<i>svara på</i>	21	answer	15	reply	1	say	1
<b>Trigger: Phone signal</b>		18	answer	14				
<b>Non-verbal communication</b>		4	answer	1	respond	2		
<b>Correspondence</b>	<i>svara mot</i>	9	correspond	2	match			1
<b>Responsibility</b>	<i>svara för</i>	21	answer for	1	be responsible for			8
<b>Proportion/Whole</b>	<i>svara för</i>	31	account for	24	be responsible for			2
<b>Achievement</b>	<i>svara för</i>	2	achieve	1	prove	1		
<b>TOTAL (all uses)</b>	<i>svara</i>	347	answer	99				

In the majority of cases, *svara* is used as a verbal communication verb with an implicit Trigger. (Note that “implicit” indicates that the Trigger is not included in the argument structure of *svara*. It may be explicit in the previous discourse). The most interesting result is that *reply* and in particular *say* are used as translations besides *answer* to such a great extent. Swedish *säga* is used only a few times as translation of *answer* and *reply* as mentioned above. The use of *reply* and *say* is conditioned by the use of a direct report as demonstrated in Table 19.

**Table 19:** Message of *svara* realized as a direct report

Trigger: Prior utterance implicit	Translations			
	answer	reply	say	
Total	241	68	86	63
Direct report		25	62	56
No message		36	15	0

The use of *reply* reaches a high frequency only in fiction and this appears to be related to the frequent use of dialog and direct report in that register. The use of *say* has a parallel in the use of *säga* as a frequent translation of *tell* in translations from English into Swedish and in a significant underrepresentation of *tell* in English texts translated from Swedish. (*Säga* appears to be translated with *say* in contexts where *tell* could have been used. See Viberg 2016.) Another noteworthy feature is that *answer* is preferred when there is no explicit message (e.g. *Peter answered. / Peter didn't answer.*) *Answer* is also the preferred translation when there is

an explicit Trigger in Swedish (see the second line from the top in Table 18). As mentioned, *på* ‘on’ is required as a marker after *svara*, whereas the Trigger is realized as direct object in English. *Reply* is more marked and requires a preposition: *He didn’t reply to the question*. Another case where *answer* is the preferred translation is when the Trigger is a phone signal. Closely related is the use of *svara* when it refers to other types of Non-Verbal communication. In one of the four examples of this type, *answer* is used as a translation: *han svarade med ett litet flin:(AL1)*, translated: *he answered with a little grin*. *Respond* appears as a translation of two more such examples, e.g.: *Jag svarade med en gest.(BL1)* *I responded with a similar gesture*.

The meanings of *svara* discussed so far have all be concerned with (symbolic) Communication. *Svara* also has a number of uses where it refers to other types of meanings. In these uses it is characteristically combined with a specific preposition as indicated in Table 18. A further option is to use one of the derived forms of *svara*. The major translations of the derived forms, which are shown in Table 20, give an idea of their basic meanings.

It is often possible to alternate between a certain derived form and one of the combinations of *svara* with a preposition. The derived forms have a tendency to be somewhat more formal and/or have a more abstract meaning. The first alternation of this type has a grammatical function. As mentioned, the Trigger cannot appear as the direct object of *svara* but must be marked with the preposition *på* ‘on’ as in (72).

- (72) Men du *svarade* inte *på* frågan. (JG1)  
But you didn’t *answer* the question.

**Table 20:** Translations of the Swedish verb *svara* and its derived forms

	<i>Promotion to direct object</i>		<i>Responsibility</i>	<i>Correspondence</i>	<i>Defense</i>
<i>Swedish verbs</i>	<i>svara</i>	<i>besvara</i>	<i>ansvara för</i>	<i>motsvara</i>	<i>försvara</i>
<b>TOTAL</b>	347	18	12	55	32
<i>Translations:</i>					
answer	99	11			
reply	88				
say	64				
account for	24				
defend	0				23
be responsible	11		11		
correspond	2			25	
OTHER	59	7	1	30	9

The Trigger can be promoted to object by substituting the prefix *be-* for the preposition *på*: *Du besvarade inte frågan* ‘You didn’t answer the question’. Unlike *svara på*, the prefixed form *besvara* can be passivized (see 73). Such forms are found in particular in Non-Fiction. The most frequent translation of *besvara* is *answer*, which also takes the Trigger as a direct object that can be passivized.

- (73) högar av brev skall *besvaras* och många besök förberedas.(GAPG1)  
piles of letters need to *be answered* and many calls must be prepared.

In Swedish, the verb *försvara* (*sig*) ‘defend (oneself)’, which consists of *svara* and the unstressed prefix *för-* can be used both as a verbal communication verb and with reference to physical or military defense. Example (74) conceptually is closely related to the response frame. The accusation serves as a trigger for the verbal defense.

- (74) I natt i drömmen kort samtal med Ruth B. Hon tycktes anklagande: jag **försvarar** mig häftigt.(PE1)  
At night in the dream short talk with Ruth B. She appears to accuse me: I **defend** myself violently.

The message can even be realized as a direct report as in (75), where the general communication verb *say* is used as a translation.

- (75) — Men om dom står på vinden, är det ju ingen som använder sakerna, **försvarade sig** pojken.(MR1)  
“But if they’re in the loft, no one uses the things,” the boy had **said in his defence**.

The message can also be realized as an indirect report, which expresses a justification (see 76). A special construction is used: *försvara* (*sig*) *med att*-S. (*med* is an instrumental preposition).

- (76) Berra **försvarade oss med att** det kunde ju hända att Janne mådde pyton, så han kunde behöva hjälp rätt vad det var.(PP1) [defended us with that-S]  
Bert **claimed we were doing the right thing** cos for all we knew Johnny wasn’t feeling too good, and he might need a bit of help all of a sudden.

In (77), *försvara* appears in a context where it refers to physical defense.

- (77) Väine blev mer och mer irriterad när Johan duckade utan att **försvara sig**.(KE1)  
Väine grew more and more annoyed when Johan ducked without **defending himself**.

As a verbal communication verb, *correspond* and its Swedish cognate *korrespondera* can refer to an exchange of letters: *Peter corresponded with Maria – Peter korresponderade med Maria*. In this use, *correspond* refers to an activity and is constructed like a speech activity verb (cf. *Peter conversed with Maria*, see Viberg 2016, Section 4). There is no example of this use in the ESPC corpus, but only abstract examples which have a meaning that is closely tied to the correspondence schema: two entities have parts or characteristics that are related to one another or fulfill complementary roles (like Speaker and Addressee in the Communication frame. In example (78), “sparks” and “lightning” are related in this way. Note that a different preposition (*to*) is used when *correspond* is used with this meaning.

- (78) The sparks **correspond to** lightning — also present on the ancient Earth and on modern Jupiter.(CSA1)  
Gnistorna **motsvarar** blixtar — som också fanns i den urtida jordatmosfären och finns på dagens Jupiter.

The correspondence schema plays an important role in Rudzka Ostryń’s (1995) analysis of the verbs of answering. The centrality of this schema is supported by the fact that the major translation of the English verb *correspond* is the derived form of *svara*, namely *motsvara* as in (79). The derived form alternates with the combination of verb + preposition: *svara mot* (*mot* ‘towards, against’). Compare examples (79) and (80).

- (79) Uttaget av virke **motsvarar** 79% av tillväxten på brukad skogsmark.(ASSI1)  
Timber extraction **corresponds to** 79% of growth on cultivated land.

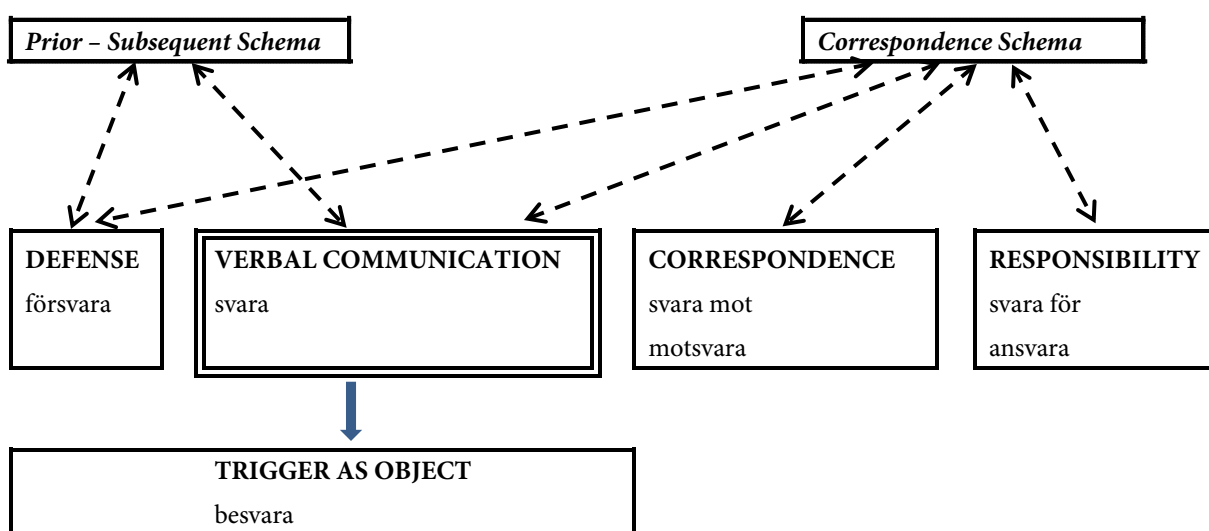


- (80) Detta förutsätter, att samhället genom beskattning av inkomster och förmögenheter kan omfördela resurser i den omfattning som *svarar mot* dessa sociala behov.(SOC1)  
This presupposes an ability on the part of society, through the taxation of incomes and wealth, to re-allocate resources to the extent *corresponding to* these social needs.

When the correspondence is exact in some respect, the verb *överensstämma* can be used in Swedish as in (81).

- (81) The wounds to the wrists *correspond* precisely *with* the Stanley knife blade discovered on the bathroom floor,(MW1)  
Såren på handlederna *överensstämmer* exakt *med* gipskniven som påträffades på badrumsgolvet,

Figure 2 shows how *svara* and its derivatives are related conceptually via the Prior-Subsequent and Correspondence schemas.



**Figure 2:** The relationships between the major meanings of the verb stem *svara* ‘answer’ and conceptual schemas

In its most prototypical use, *svara* is related to a question which must be prior to the answer. In addition, there must also be a correspondence at a more detailed level between the information asked for and the information given (in the ideal case). The frame element Trigger, which plays a prominent role in the Response frame in FrameNet, also must be prior and in addition must correspond in crucial ways to the response. If the last condition is not fulfilled, the prior element could be of a more general type, for example any type of Cause. As an answer to an attack (or an accusation), a defense depends both on the attack being prior to the defense and on a correspondence between this specific type of trigger (‘hostility’) and the specific type of answer. Correspondence, on the other hand, is a static relationship, and is not related to the Prior-Subsequent schema. The same applies to Responsibility, as will be demonstrated shortly. The arrows showing the connections are bidirectional. When they go from the schema, they indicate an instantiation of the schema. The opposite direction indicates abstraction. The connection between *svara* and *besvara* (Trigger as Object) is symbolized with a solid arrow which indicates a morphological relation (prefixation).

When *svara* refers to Responsibility, there is an alternation between *svara för* lit. ‘answer for’ (see 82) and *ansvara för* (see 83) (cf. the noun *ansvar* ‘responsibility’ and the adjective

*ansvarig* ‘responsible’). Different domains of responsibility are related to (correspond to) various responsible parties. This is particularly clear in (83). Thus, the Correspondence schema is relevant also for Responsibility, but the relation is completely static, so the Prior-Subsequent schema is not relevant. The major English translation is *be responsible for*. In addition, *be in charge of* is used in one example.

- (82) Arbetsgivare och arbetstagare **svarar** gemensamt **för** att skyddsombud får erforderlig utbildning. Lag (1991: 677).(ARBM1)  
Employer and employees **are** jointly **responsible for** safety delegates being given the requisite training.
- (83) Hans Quiding **ansvarade för** vissa delar, Viking Göransson **för** andra och Nils Einar Eriksson **för** den enorma festplatsen med hela restaurangen.(CE1)  
Hans Quiding **was responsible for** some parts, Viking Göransson **for** others and Nils Einar Eriksson **for** the enormous festival square and the entire restaurant.

*Svara för*, but not *ansvara*, has another meaning, where the verb refers to amounts that form part of a larger sum (the WHOLE). The relationship between part and whole might be regarded as an instantiation of the correspondence schema. (This is not completely obvious and would deserve a deeper analysis, but that falls outside the scope of this paper on verbal communication). (84) is based on an actual example in the ESPC (word order has been normalized).

- |      |             |           |              |                    |                        |
|------|-------------|-----------|--------------|--------------------|------------------------|
| (84) |             |           | PART: amount |                    | WHOLE: sum             |
|      | Steamers    | accounted | <b>for</b>   | 33 million kronor  | <b>of</b> this sum     |
|      | Ångfartygen | svarade   | <b>för</b>   | 33 miljoner kronor | <b>av</b> detta belopp |

*Be responsible for* is used as a translation even of this meaning of *svara för* (see 85).

- (85) A small group of people on long-term sick leave are **responsible**  
[**for** a very large proportion]PART  
[**of** the total number of days of sick leave]WHOLE  
En liten grupp av långtidsfrånvarande **svarar för** en mycket stor del **av** antalet sjukfrånvarodagar.(ARB1)

## 7. Conclusions

The verb *ask* is interesting because it has a number of different meanings, each of which appear in specific types of constructions that serve as cues for the interpretation, when the verb appears in different contexts. The two basic Swedish correspondents *fråga* and *be* not only correspond to the two different semantic prototypes of *ask* (*ask<sub>Question</sub>* and *ask<sub>Request</sub>*) but also divide up the constructions in which they appear in a parallel way. The verbs of *answering* in English are interesting primarily because they form a network together with other English verbs conceptually organized around the Response frame. In Swedish, large parts of this network are expressed lexically in words that are morphologically derived from the verb *svara* ‘answer’. Thus the conceptual network is reflected to a great extent in the morphological relatedness between word forms.

The analysis in this paper is presented from a theoretical perspective but also represents a good point of departure for teaching the basic contrasts. Most of the senses described in this paper and often also a number of less frequent ones can be found in a good comprehensive dictionary. However, for reasons of space and due to the alphabetical organization, which is convenient for looking up words, words and their senses are listed without explaining how they contrast with semantically related words and how various uses are related to the general structure of the language.

This study of the verbs *ask* and *answer* together with the parallel study of the verbs *say*, *tell*, *speak* and *talk* compared with their Swedish correspondents (Viberg 2016) show how the basic semantic contrasts within the field Verbal Communication are expressed across the two languages departing from shared basic elements in the conceptual structure such as Speaker, Linguistic action, Addressee, Message and Topic. When these elements are realized syntactically the Speaker is canonically realized as Subject, whereas the Addressee variously is realized as an Object or a PP depending on the verb, for example *I answered her*, *I talked to her*. In Swedish, the Addressee is also realized as an object after *svara* (*Jag svarade henne*) but as a PP with the preposition *med* ‘with’ after *prata* ‘talk’: *Jag pratade med henne*. (*With* is possible also in English but represents a marked alternative). The verb *tell* also takes the Addressee as an object: *I told her the result*, whereas the Addressee is marked with the preposition *för* ‘for’ when it appears after the Swedish correspondent *berätta*: *Jag berättade resultatet för henne*. The Topic is usually marked with *about* in English and *om* in Swedish: *I talked about her* / *Jag pratade om henne*. These are only some simple examples, but it is possible to present, for example, some of the more complex realizations of the Message in similar ways.

## References

- Altenberg, B., and K. Aijmer. 2000. The English-Swedish Parallel Corpus: A Resource for Contrastive Research and Translation Studies. In C. Mair, and Ma. Hundt (eds.), *Corpus Linguistics and Linguistic Theory*, 15-23. Amsterdam and Atlanta: Rodopi.
- Dirven, R., L. Goossens, Y. Putseys, and E. Vorlat. 1982. *The Scene of Linguistic Action and its Perspectivization by Speak, Talk, Say and Tell*. Amsterdam: Benjamins.
- Fillmore, C.J. 1982. Frame Semantics. In *Linguistics in the Morning Calm*, edited by The Linguistic Society of Korea, 111-138. Seoul: Hanshin Publishing.
- Fillmore, C.J., C.R. Johnson, and M.R.L. Petruck. 2003. Background to FrameNet. In T. Fontenelle (ed.), *FrameNet and Frame Semantics*, Special issue of *International Journal of Lexicography* 16: 231-366.
- Hammarberg, B., and Å. Viberg. 1976. Reported Speech in Swedish and Ten Immigrant Languages. *SSM Report 5*. Department of Linguistics, Stockholm University. Available at: [http://www.ling.su.se/polopoly\\_fs/1.14093.1320939586!/SSM\\_05\\_1976.pdf](http://www.ling.su.se/polopoly_fs/1.14093.1320939586!/SSM_05_1976.pdf).
- Harras, G., E. Winkler, S. Erb, and K. Proost. 2004. *Handbuch deutscher Kommunikationsverben. 1. Wörterbuch*. Berlin: de Gruyter.
- Harras, G., K. Proost, and E. Winkler. 2007. *Handbuch deutscher Kommunikationsverben 2. Lexikalische Strukturen*. Berlin: de Gruyter.
- Johansson, S. 2007. *Seeing through Multilingual Corpora*. Amsterdam: Benjamins.
- Proost, K. 2007. *Conceptual Structure in Lexical Items*. Amsterdam: Benjamins.
- Rudzka-Ostyn, B. 1989. Prototypes, Schemas and Cross-Category Correspondences: The Case of *ask*. *Linguistics* 27: 613-661.

- Rudzka-Ostyn, B. 1995. Metaphor, Schema, Invariance: The Case of Verbs of Answering. In L. Goossens, P. Pauwels, B. Rudzka-Ostyn, A.-M. Simon-Vandenberghe, and J. Vanparrys (eds.), *By Word of Mouth*, 205-243. Amsterdam: Benjamins.
- Searle, J.R. 1976. A Classification of Illocutionary Acts. *Language in Society* 5: 1-23.
- SUC 1.0. 1997. The Stockholm Umeå Corpus. Produced by Dept. of Linguistics, Umeå University and Dept. of Linguistics, Stockholm University. CD ROM.
- Viberg, Å. 2008. Swedish Verbs of Perception from a Typological and Contrastive Perspective. In M. de los Angeles Gómez González, J. Lachlan Mackenzie, and E.M. González-Álvarez (eds.), *Languages and Cultures in Contrast and Comparison*. [Pragmatics and Beyond New Series 175], 123-172. Amsterdam: Benjamins.
- Viberg, Å. 2015a. Contrasts in Construction and Semantic Composition: The Verbs of Putting in English and Swedish in an Intra-Typological Perspective. In H. Hasselgård, and S. Oksefjell Ebeling (eds.), *Cross-linguistic Perspectives on Verb Constructions* [Studies in Language and Translation Series], 222-253. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Viberg, Å. 2015b. Motion Verb Typology and the Expression of the Endpoint of Motion in Swedish. In M. Bloch-Trojnar, A. Malicka-Kleparska, and K. Drabikowska (eds.), *Concepts and Structures – Studies in Semantics and Morphology*. *Studies in Linguistics and Methodology* (SLAM), 209-229. Lublin: Wydawnictwo KUL.
- Viberg, Å. 2016. SAYING, TALKING and TELLING. Basic Verbal Communication Verbs in Swedish and English. [Publication from ICAME 36. Trier 2015. To be specified.]

### Electronic sources

FrameNet: <http://www.icsi.berkeley.edu/~framenet/>

The Bank of Swedish: <http://spraakbanken.gu.se/eng>

The English Swedish Parallel Corpus (ESPC): <http://www.sol.lu.se/engelska/corpus/corpus/esp.html>