# Categories and Units in Language and Linguistics

edited by
**Janusz Badio**

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# Łódzkie Studia z Językoznawstwa Angielskiego i Ogólnego
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# Introduction

The present volume offers thirteen papers on categories and units in language, linguistics, language pedagogy and literature. The scope of the monograph is wide. However, it has been the editor's goal to shed light on different categories and units from the smallest building block of linguistic structure, the phoneme, to morphology and grammar, discourse, psychological, social phenomena as well as language teaching and testing oral skills. The monograph is addressed to students as well as anybody wishing to learn about how language categories can be discussed.

Arranged alphabetically, the majority of papers that have been included in this work look at language from the point of view of cognitive linguistics, which focuses on how patterns of thought are reflected in patterns of language. Such a cognitive perspective on units and categories is also inextricably tied in with the prototype effects, family resemblance, radial categories or unequal membership status. The first chapter by Janusz Badio discusses the narrative category called *evaluation*. Stories cannot do without some form of evaluation that can be found in their different parts. The author presents data from his own study which asked foreign language students to write a story on the basis of a joke. Also by the same author, the second chapter deals with *construal*, the core concept within Cognitive Linguistics. The author demonstrates that the choice of different syntactic patterns to retell a silent video is associated with variable levels of cognitive prominence. Chapter three explains what gestures can tell us about the nature of language. Alan Cienki discusses the structure, features and functions of variable gesture units. He observes that, "[m]ost types of gesture categories: are best viewed as having prototype structures, rather than a category structure with strict boundaries". Other language units together with gestures create the human "audio-visual" dynamic and poly-semiotic communication system. Chapter four focuses on the category of *identity*, comparing and contrasting two main approaches to the topic: as a product of the rational mind and as an interactional, social phenomenon.

Identity has become a popular field of study within linguistics as evidenced by Kamila Ciepiela's paper and research. Chapter five covers the unit and category of the *phoneme*. Craig Callender skilfully discusses its traditional interpretations and argues that "Sapir and Trubetzkoy's ideas about the psychological reality of phonemes and the role of contrastive oppositions in sound systems are as relevant as ever". Perception and perceptual salience, explains Craig Callender, serve a key role in certain phonological contrasts and processes. Next, in chapter six Henryk Kardela "applies Ronald Langacker's conception of Baseline/Elaboration (B/E-organisation) to derivative morphology". This paper provides an excellent explanation how function and form are fused seamlessly into a single morphological unit. Chapters seven and eight by Krzysztof Kosecki look at Thomas Mann's and Ernest Hemingway's works. "Thomas Mann's (1875–1955) epic novel *The magic mountain* (1924/1996) turns upside down the conventional axiology of the experiential categories of health and rationality, […] [and] romantic idea of a Bildungsreise or educational journey". Chapter eight interprets Ernest Hemingway's (1899–1961) short story *Cat in the rain* as a prototype of narrative plot and romantic love scenario due to the use of metaphors and metonyms. Chapter nine directs the reader's attention away from literature to foreign language testing of oral skills. Przemysław Krakowian supports qualitative and quantitative methods of testing them. The next chapter ten presented by Ourania Papadima elucidates the now important categories English for Specific Purposes (EAP) and English for Academic Purposes (EAP). Conceptual framework for EAP/ESP and their historical development are provided together with very interesting and detailed comparisons with EGAP (English for General Academic Purposes) as well as ESAP (English for Specific Academic Purposes) coupled with other relevant key concepts: needs analysis, curriculum and syllabus. This chapter is followed by chapter eleven on grammatical categories and how these categories are presented to a language student. Jana Richterova highlights and discusses the, sometimes, unclear presentations of grammatical points in foreign language textbooks that focus on communicative methodology. Nezrin Samedova discusses the complex category of grammatical *aspect* in Slavic languages, especially Russian in chapter twelve. Last, but not least, in chapter thirteen Jacek Waliński debates the categorization of directional motion verbs. They are *source/path verbs* designating bounded paths, *route verbs* such as 'cross' and 'pass', so-called *constant verbs* subdivided into *chase verbs, accompany verbs* and the last separate category of *deictic verbs* illustrated by *come* and *go*.

# Evaluation in EFL written stories

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**Abstract**

The structure of oral narratives, as studied by Labov & Waletzky (1967) involves an *abstract*, *orientation, complicating action, resolution, evaluation* and *coda*. Narratives are presented on TV and radio news, newspapers as well as in everyday conversations (Ervin-Tripp & Küntay, 1997), also during children's dramatic play (Ervin-Tripp & Küntay, 1997), jokes (Badio, 2020), stories as rehearsal for action (Kiełkiewicz-Janowiak, 2015), stories as background of the meaning of lexical items, e.g. *dirty money* (Filar, 2015), advertisements and in a great number of other contexts. The different components of narratives as listed by Labov & Waletzky (1967) include the complex category of *evaluation*. Characterisation and discussion of this unit of narrative constitutes the goal of the present article.

**Key words:** story, event, narrative structure, evaluation

## 1. Introduction

Labov and Waletzky (1967, pp. 28–35) argue that a narrative that only contains events of the complicating action[1] seem hard to understand. The following transcription of a part of an oral narrative illustrates the point.

    a) See he – they threw him out, you know
    b) So he wanted to get back in, 'cause, you know, it was sn-raining
    c) So he got on his boat

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[1] One of the components of a narrative as studied by L&W (1967) that contains the main events of a story or narrative. Their narrative schema contains: abstract, orientation, complicating action, evaluation, resolution and coda. The abstract at the beginning of a story is a general statement about what happened. Orientation introduces the reader or listener to the context: location, setting, time and characters. It is usually placed at the beginning of a story but orienting comments can be found anywhere in a narrative. The same is true of the part called evaluation, which presents the story-teller's opinions and emotions regarding the events that took place. Resolution presents the outcome of the events that lead to the most reportable event for which a story is worth telling, whereas the coda is a statement, not always present, that is used to return to the here and now, such as, *Well, yes, that's how it happened* [invented example J.B.].

d) and tried to – go somewhere else
e) and the boat went over
f) and he tried to swim
g) and this other man was swimming in the rain
h) So he seen the pig
i) and he went over there
j) and picked the pig up
k) and put it in the boat
l) and brought it back to the shore, so he would land there
m) and that was that.

The original narrative was ten times longer, but even this shortened version seems odd. It contains a sequence of events that constitute the complicating action, but they "[…] are lacking the evaluation section that is typical of narratives of personal experience" (Labov & Waletzky, 1967, p. 29). This results in uncertainty regarding how the piece should be interpreted, what the main point is and what the author is trying to achieve. The boundary between the complicating action and the result is also too fuzzy. The need to include evaluation in a story (narrative) springs from the observation that stories are "told in answer to some stimulus from the outside […] to establish some point of personal interest" (Labov & Waletzky, 1967, p. 29). Events are not presented for their own sake even if they are surprising, interesting and very reportable. This article has the goal of characterising *evaluation* as a unit of narrative/story and discuss ways in which it is performed. The examples used in the presentation come from L&W[2] (1967) and a study by Badio (2014). Section one attempts an extended definition of the category of evaluation as it is applied to narrative structure. Section three discusses evaluative signals often employed throughout a story, whereas section four provides numerous examples of strategies employed in a study in which the participants (advanced learners of English as a foreign language at the University of Łódź, Poland) were instructed to write a story on the basis of a certain baseline, input sequence of events. They wrote from the point of a wife, who had mistakenly placed a large amount of cash in the fireplace.

## 2. Defining evaluation as an aspect of narrative

Evaluation can refer to one event within a story, a set of events as well as to the whole narrative. When a single event is evaluated, a clause can be used, usually in *irrealis mood* or a set of clauses in the case of the whole section called evaluation.

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[2] L&W is used to stand for Labov and Waletzky.

Evaluative commentary often spreads across the entire narrative and gets coded with the use of: emphasis, parallel structures, comparatives, modals, negatives, future forms, repetition and symbolic action. Evaluative clauses suspend the progression of events in the complicating action. Time, as if, slows down or even stops. This is perhaps less obvious in the case of single words and phrases added to clauses in the complicating action (Labov & Waletzky, 1967, p. 33–34).

Evaluation was by these authors (Labov & Waletzky, 1967, p. 35) demonstrated to exhibit variable 'embedding' or internality vs. externality (to a story). The following sentences from L&W (1967, p. 45) are provided to explain this point.

2) a) and when he got down there, her brother turned to me and whispered, "I think she's dead, John"
b) and when she got down there, I said to myself, "My God, she's dead!"
c) and when we got down there, I thought, "She's dead."
d) and when we got down there, I thought she was dead.
e) Later, the doctors told us she was close to death.
f) I think she must have been close to death.
g) You know, in cases like this, it's clear that she was likely as not dead.

The highest level of embedding of an evaluative comment within a narrative in which it is used is illustrated by example [2a]. The last comment in this clause, i.e., *I think she is dead, John*, quotes *her brother* and constitutes an event on a par with other events of the complication action sequence. Such a solution heightens the cognitive salience (cf. Talmy, 2007) of the information that she was probably dead by coding the source of this information, interlocutors and their relation. A reader or listener is invited to mentally simulate the whole situation together with the way the just quoted comment must have been whispered (as we are dealing with oral narratives). Naturally, if language is used to code specific aspects of an event or situation, they become foregrounded, more prominent and stand out in conceptualisation. Example [2b] by comparison codes the subjective event of *thinking* and the narrator quotes her/(him)self. [2d–f] become less specific in this respect. [2d] codes two events: that they got there and what the narrator thought; [2e] is even more external to the main events of the story as a third party is introduced (doctors), not present in the sequence of the complicating action, whereas the whole of [2f] is the narrator's evaluative comment. [2g] is the most external and the least embedded evaluative comment within the sequence of events of the complicating action. The narrator distances her/himself from the actual story that has just been told in order to evaluate what happened.

Evaluation can be presented by the narrator "showing [her(him)self] in a favourable position […] [with] the function of self-aggrandizement" L&W

(1967: p. 34). When the narrator (speaker in a conversation) wishes to put blame on another person for what had happened, s/he tends to use evaluative commentary. Apart from evaluating an event or a set of events, such a commentary may also serve the function of constructing causality within a narrative. In fact, these two functions (constructing causality and evaluating at the same time) are often merged.

## 3. Evaluation signals in narrative

The evaluation section can be performed by a number of linguistic devices: *emphasis*, parallel structures, comparatives, modals, negatives, repetition and use of symbolic action. The term emphasis applies to the use of a number of strategies whose purpose is heightened listener's or reader's attention on selected events, situations and their features. One way to achieve this result is by suspending the action and providing a narrator's comment on an event or a sequence of events just reported, as demonstrated in example [3] below.

> 3)  I told him – it's impossible for him to find downstairs, cause all those people were walking by, and just his father is the only one that find it? (L&W 1967, p. 34)

In this case the narrator criticizes the action of the other and performs self-promotion. Emphasis can also be achieved by lexical intensifiers such as *really*, *honestly*, *of course*, and the use of very specific, often colloquial terms in the case of oral narratives, e.g., *whooped* instead of hit as in *I whupped that dude half to death* (L&W, 1967, p. 32). Higher prominence resulting from the application of parallel structures is exemplified by such comments as: *I knew he was bad*, *I knew he was a liar*, *I knew he would cheat on us*. Comparative and superlative adjectives, e.g. *better*, *far more advanced*, *the best* are naturally evaluative and can be easily added to a story clause presenting an event that belongs to the complicating action sequence. Modal verbs, e.g. *should*, *should have*, *could have* express the story teller's stance towards presented events. There is a difference in *He picked up the bits of broken glass from the floor* as opposed to *He should have picked up the bits of broken glass from the floor*. The second sentence means he did not do it and also expresses the narrator's negative opinion (evaluation). Negative forms can be coded by both grammar and lexical items, and they can be added anywhere within a narrative to provide hints on how the narrator evaluates an event. For example, in *Yeah .. he played truant*, the adverb 'yeah' receives negative interpretation in the context of making a comment about a student who decided to miss classes on

a particular day. Repetition certainly enhances the cognitive salience of an idea. For example, if one says, *and he did it*, *he did it*, the evaluation is communicated through the indirectly coded surprise at the fact that somebody took courage to perform an activity or an event. Last, the use of comments describing symbolic action, such as: *you could hear the rosaries clicking*, *I crossed myself*, *up to his eyeballs in debt*, is an example of evaluation that can be interspersed throughout the whole story and is culture dependent.

## 4. Evaluation strategies in a EFL written stories

The data for the present section comes from a study by Badio (2014) inquiring about strategies EFL story writers use to put blame on the other for something bad that has happened. The participants of this study were instructed not to change facts of the baseline story, but they were allowed to use other strategies of their own choice.

Divided into two groups, the EFL students had to retell in writing a story from the point of view of a wife to explain why a certain amount of money went up in smoke. One group had to be objective as far as possible, whereas the other one was told to blame the husband for the loss of money. The students employed: direct evaluative comments, subjective events, descriptions of routine behaviour, extensive elaborations of background information and character descriptions in order to negatively evaluate the role of the husband in this story.

### 4.1. Use of events and circumstances to evaluate what happened

In order to blame the husband for what happened, some participants decided to add information on events or circumstances that facilitated the wife's mistake of putting a brown paper bag full of money into a roaring fireplace. Some of them were actually provided in the baseline story, either in the orienting or complicating action sections. For example:

4) It was a late evening; it was about midnight
5) It was a very long day-work for my husband; He was tired
6) […] that the client paid to my husband in cash
7) He wasn't able to do it [*deposit the money*] because all the banks were closed
8) Unluckily for us, he went to a restaurant [*where he bought food and put the money in another brown paper bag from there*]; and he kept 2000 pounds in a paper bag.
9) but he didn't reply

All the above comments evaluate the most reportable (unfortunate) event of the story in slightly different ways. Numbers [4] and [7] describe conditions which facilitated the MRE.[3] [4] is a comment that can also be understood as orienting in time. Its evaluating power lies in our understanding that late in the evening or night people tend to be tired and make mistakes. At the same time the comment builds the causality in the story. Because it was late, the husband was tired, so he did not hear when his wife asked about the brown paper bag left by him on the kitchen table. Examples [6] and [7] explain the need to carry cash around and an obstacle in depositing the money in the bank, which is evaluative because it justifies the need to bring the banknotes home. Comment [8] evaluates the circumstance of the husband visiting a fast-food bar after work at night, from where he took a brown paper bag to place money in. This is evaluated as unfortunate and out of control of the husband. Number [9] is a negative event, i.e. one that actually did not take place. The wife asked what was in the paper bag, but heard no reply. Though not directly stated, the evaluation of this event is that should the husband had answered the question, their money would not have been burnt to ashes. All the above comments code an event or circumstance and they are almost always both evaluative and causative, sometimes also orienting.

## 4.2. Presentation of routine behaviour to evaluate what happened

Routine is highly credible but seldom, if ever, reportable. That is why its use in the context of a story serves other purposes than the presentation of the development of the complicating action. Evaluation of what happened may be presented by displaying a character's routine behaviour. Let us consider the following examples from the study by Badio (2014).

10) because I saw this mess on the table, as usual
11) and, as usual, he left some trash on the kitchen table
12) my husband as usual was watching television
13) It is the thing we always do with flammable but not polluting stuff

The examples consist of two parts. One part codes an event performed by a character, whereas the other part informs that the event was typical, routine, or one that is negatively assessed by the other. Leaving the table untidy and watching TV all the time is not only considered disrespectful but also causal in the rather dramatic effect of wasting all the hard earned cash.

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[3] MRE stands for the most reportable event in a story, here that a paper bag full of money was placed inside a fireplace and was destroyed.

## 4.3. Using subjective events (comments) to evaluate story events

Another strategy that turned useful in blaming the husband for what happened was the frequent coding of the so-called *subjective events*, i.e. events whose truth value cannot be assessed.

14) I *tried* to ask him what he brought
15) and I answered that I *thought* there were rubbish so I threw it to the fire.
16) I *had no idea* what was inside the paper bag →
17) but he *seemed to be* was so overwhelmed with the film
18) but *I think* my husband didn't do it
19) and didn't *probably* hear my question
20) I *just* wanted to throw out some rubbish
21) I *swear I didn't know*
22) I *suppose* he didn't hear my question
23) I *was sure* that it was not anything important
24) It is the thing we always do with flammable but not polluting stuff

They all express the idea that the wife made the terrible mistake of burning the money because she: *thought, believed, wondered*, which frees her from feeling guilty, at least to some extent. At the same time, and as in the case of the other strategies described above in this section, also the use of subjective comments serves the purpose of evaluating what happened and constructing causality.

## 4.4. Presentation of one's character to evaluate what happened

Comments regarding a person's character features, positive or negative, can also be used to evaluate events belonging to the complicating action of a story. In the case of the study described in this section, the students writing from the point of view of the wife, invented all kinds of negative commentary describing the husband's character. As in the case of other sub-sections of section four, they were used not only to evaluate but also to construe causality. The following comments illustrate this point:

25) My terrible husband
26) and, to be true with myself, he was never the one too tidy or organized in the house
27) I know that my husband works very late, and it irritates me
28) He never has time for me – to speak freely or go on a holiday simply
29) My husband is not supposed to do anything at home; he is a terrible slob
30) Who puts money in paper bag and leaves it on the kitchen
31) My husband never listens to me

The first comment in example [25] uses a general adjective with negative connotations; [26] refers to the husband's untidiness, short-sightedness [27] and inability to strike a work-life balance, ignorance of his wife [28] and laziness [29], even stupidity and inability to predict consequences of his actions [30] and finally inability to listen, living in his own world [31]. The features negatively assess the husband's role in the MRE, but are also portrayed to explain the causal relations within the story, i.e. how it was possible that the MRE happened.

## 4.5. Extensive elaboration of the background (quasi orientation) as a way to evaluate what happened

This is still another category in the pool of evaluation strategies put to action by the participants of the described study by Badio (2014). Some participants wrote (from the point of view of the wife) lengthy descriptions of their marriage situation and life in general. For lack of space only two of them are quoted below.

32) Everything as usual. I know that my husband works very late, and it irritates me. He never has time for me – to speak freely or go on a holiday simply. But I must live with him. He's my husband. I was so tired.

33) My husband is never listening to me. Never. But finally he received his punishment. But let me tell the story from the beginning. During our courtship it was all perfect. We used to talk much, sometimes about serious things but also about some silly events from our lives. I remember how he used to complain about how silent and introverted I am and insisted I should talk more and more. After marriage, they say, people change. And so did my husband and I. Now he prefers to listen to the radio, to the television, or his stupid friends' stories than to things I have to say that are so crucial to me. He ignores me, disrespects me. I cried at nights and could not make up any solution to his absence of mind. But now I know karma exists.

In example [32] the wife in one story said nothing strange was going on. Evoking the usual and comparing it to the dramatic events of one evening, during which a large sum of money went up in smoke, constitutes an evaluation and a construal of the idea the wife is not to be blamed for the incident. The comment is then followed by stereotypical ideas of (Polish) marriage problems: the husband is blamed for never having enough time to spend with the wife, going on holiday together and feeling tired. The next example [33] is similar in this respect to [32], but is longer. The selected cultural stereotype in this case is the one in which the time of courtship before marriage tends to be a happy and care-free period, but after marriage at least one of the spouses (here the husband) changes for the worse and ignores the other half. This story contains details of events, such as *he prefers*

*listening to the radio*, and only the final comment is a more direct evaluative statement, *but I know karma exists.* The wife says that the incident of incinerating the large sum of money in the fireplace happened because their marriage has changed for the worse. Such a description both evaluates the MRE and construes the cause-effect links (the participants were instructed to write from the point of view of the wife in order to blame the husband for wasting 2000 pounds).

## 4.6. Direct evaluative comments

This category involves narrator's comments that are directly evaluative. All examples in this section evaluate the unfortunate event of burning 2000 pounds in the fireplace by mistake. The reader is reminded that this study asked the participants to write from the wife's point of view (one condition) and be as objective as possible or blame the husband (the other condition). Such an instruction excluded feeling a great deal of empathy for the other, especially in the 'blame husband' condition. A selection of direct evaluative comments are presented below.

34) I assumed it was to be put in the fireplace.
35) *Unluckily* for us, he went to a restaurant.
36) Of course I had no idea that he would keep such a great amount of money in a paper bag.
37) […] he should have known that keeping money in a paper bag that looked as rubbish is not a good idea.
38) It is not my fault that he hadn't told me that all banks were closed and he kept 2000 pounds in a paper bag.
39) I decided to clean the kitchen and living room. I know it was late, but I was too tired to do this earlier.
40) It was a very long day-work for my husband.
41) I suppose he didn't hear my question.
42) Frankly speaking, when I saw my husband fighting with a fire I was ready to call an ambulance.
43) […] and wasn't surprised at all (*at what happened, i.e. that the money went up in soke*).

Example [34] offers an explanation that the wife *assumed* the brown paper bag needed to be disposed of on the grounds that the husband had left it lying among other left-overs and rubbish on the kitchen table. Her assumption is presented as an evaluation of what she did. Comments [35] and [36, 37, 38] contain direct evaluative adverbs, *unluckily* and *of course*. The former refers to the event of the complicating action, whereas the latter three examples pertain to the idea that the wife was not able to predict that the husband would be so irresponsible as to keep

a large sum of cash in a brown paper bag. Further, the mistake of placing the hard earned cash into the fire is attributed in examples [39, 40] to feeling tired late in the evening, also the husband's inattentiveness in the evening (example [41]). Comment [42] evaluates the wife's emotions at the time the husband was trying to rescue the money from the flames, and [43] refers to how she felt after the money was burnt given her non-acceptance of the husband's general attitude and relations between the spouses.

## 5. Conclusions

In sum, presenting a sequence of complicating action events without some evaluation of their meaning, importance or a character's affective response to them does not constitute a story. Events in a narrative need to be evaluated in order for the narrator to be able to make a point beyond the literal interpretation of the narrative events. Story tellers evaluate single events, their sets or the whole narrative. Evaluation can be performed by single words or phrases added to events that belong to the complicating action section, or it is coded in separate evaluative clauses. L&W's (1967) and Labov's (1997) ground-breaking work on oral narratives has been reported regarding evaluation. Evaluation was shown to be coded into the form of emphasis, parallel structures, comparatives, modals, negatives, repetition and symbolic action. Moreover, a study by Badio (2014) has been used to provide example strategies employed by non-native, advanced learners of English as a foreign language in a story construal task. They tended to employ at least one of the following strategies to evaluate what happened: use of an event from the complicating action, description of routine behaviour, use of subjective events, description of a person's negative personality features, extensive elaboration of background information, quasi-orienting comments as well as direct evaluative clauses. What is important to emphasize is that the above mentioned strategies not only serve the purpose of evaluating events but they also perform an important role in the construal of blame and causal structure of a story.

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# Ranking for cognitive salience of events and coding them into a sentence format

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**Abstract**

This article discusses the use of different syntactic options in the construal of events.[1] The examples selected for presentation and analysis come from a study by Badio (2014). This work understood *construal* to be non-linguistic, mental or conceptual, i.e. related to thought, whereas the term *coding* was reserved for the use of form to signal aspects of a conceptualisation. The present work focuses on demonstrating that if they are prominent, events tend to be coded with finite verb forms (of the superordinate) clause, followed by participial and infinitive constructions. The former contain the full processual profiles when they are used to relate the main participants, the subject and object. Infinitives and participles tend to be less cognitively salient, whereas nominalisations and other non-verbal options background the processual profile of an event. As a consequence, events coded with them are less salient within a clause or a sentence.

**Key words:** construal, coding, event, clause, verb forms, nominalisation, cognitive prominence, salience

## 1. Introduction

Relating conceptual structure to linguistic structure is termed *coding* (Langacker, 2008, p. 357). It is seldom straightforward. Badio (2014) reserves the term *construal* to conceptual structure, i.e., the structure of thought and advocates applying the term coding to the use of language form. This solution was also suggested, albeit indirectly perhaps, by cognitive linguists (cf. Croft & Cruse, 2004; Langacker, 1991; Talmy, 2000, 2007), who agree that an expression involves the semantic and phonological poles with correspondences between them. The semantic pole of an

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[1] The term *event*, i.e. "a segment of time at a given location perceived by an observer to have a beginning and end" (Zacks & Tversky, 2001:7) is in this work also applied to static states, situations and activities despite the observation that *states* are not bounded in time.

expression is also called its *conceptual structure*, whereas the phonological form is synonymous with the term *language form* in speech and/or writing.

Processes of construal are active, dynamic and depend on current goals as well as linguistic abilities of a language user. S/he recruits (often automatically and below the level of conscious awareness) linguistic structure selectively to instruct a language comprehender as regards variable levels of *cognitive prominence* of the aspects of the conceptual structure. The resulting elements of linguistic structure foreground or background the corresponding aspects of a conceptualisation.[2] Attention becomes a semantic feature of conceptual structure and language form (Barsalou, 1999). The ultimate goal of construal operations is proper ranking for salience of the elements of conceptual structure and adequate instructing about it with linguistic structure (the signalling system).

The description of linguistic coding options in relation to the amount of attention was undertaken by Talmy (2007, p. 264), who says that:

> […] language has an extensive system that assigns different degrees of salience to the parts of an expression or of its reference or of the context. In terms of the speech participants, the speaker employs this system in formulating the expression; the hearer, largely on the basis of such formulations, allocates his or her attention in a particular way over the material of these domains.

Relative to the choice of form, attention in language is either increased or decreased on the entity that the form designates with different factors working together rather than alone.

In general, attention tends to be more on meaning rather than form, more on the overall meaning than the meaning of individual words, more on the meaning as it arises in context than other possible interpretations. Also, attention in language operates in a similar way in which it works in other cognitive systems. For example, "greater magnitude along a cognitive parameter tends to attract greater attention to the entity manifesting it" (Talmy, 2007, p. 266). By way of example, a bigger object is more salient than a smaller object, and in language the former is coded as a reference point to locate a smaller object. Only sentence [1a (below)] is acceptable.

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[2] Such an explanation implies that even the smallest change of language form results in some change of meaning. Though this author generally agrees with this view, he thinks that Cognitive Grammar may be too idealistic in this respect. Real-life communication places variable requirements on language users as regards the amount of attention they pay to details of linguistic structure. Everyday conversations differ from, say, important job interviews. The latter require far more careful selection of linguistic structure than the former.

1)    a) The bike is behind the house.
         b) *The house is behind the bike.

Previous research focussing on attentional effects in language involves the study of *focus* and *topic* (Lambrecht & Polinsky, 1997), *activation* (Chafe, 1994; Givon, 1992, 1994), *prototype effects* (e.g. Lakoff, 1987), *frames* (Fillmore, 1976, 1982), *active zone, profiling, figure/ground distinction, stage model, event chain, billiard ball model of event causality* (Langacker, 1987, 1991, 2008), *figure/ ground distinction, windowing of attention, foregrounding/backgrounding* with closed class versus open class words, levels of attention on the whole scene rather than its components, verb vis a vis verb complements, attention as it is expressed by the subordinate rather than the main clause (Talmy, 2000).

This article will analyse and discuss selected sentential patterns of a small corpus of written video cartoon descriptions by Polish advanced students of English (Badio, 2014, pp. 181–217). The syntactic choices involving simple clauses, coordinate and subordinate sentences, both finite and non-finite used in written accounts (stories) of the video cartoon will be discussed in relation to the variable cognitive prominence of their components that code particular aspects of corresponding events.

## 2. The task and data set

As mentioned earlier, the present analysis uses mostly examples from Badio's (2014, pp. 181–217) work on construal and coding of events in language. The task in that study instructed advanced, Polish students of English as a foreign language at the University of Łódź ($n = 30$) to retell the content of a children's cartoon (video or pictures) in either Polish-native or English-foreign language. Hence, there were two independent variables, language (native vs. non-native) and mode of presentation (pictures vs. video) to research their influence on the kind and number of events coded in the students' written retellings of the children's cartoon story *Bolek and Lolek*. The corpus contains 461 clauses arranged in a dBase of Microsoft Access according to the above presented conditions.

This analysis focuses on how information about events is arranged in different sentence formats. The corpus of sentences classified into simple, subordinate, coordinate or complex turned out to be useful. However, the original study was not interested in variable attention levels represented by different syntactic solutions (e.g. finite verb forms, non-finite verb forms, nominalisations). As a result, the dBase contains no tags to identify variable forms to signal an event, scene or situation that this chapter will discuss.

## 3. Narrowing the focus

The writers had to watch a video twice or view a sequence of pictures to write a story. They were told that their memories were not being tested, but that the focus was on the way the events of the cartoon story would be framed and coded in language.

The presentation and discussion of variable types of sentences recounting events will first deal with the simple clause in section 3.1, followed by the discussion of appropriate examples of subordinate sentences in section 3.2. Coordinate sentences will not be discussed as they contain clauses with equally salient and important processual concepts expressed by their finite verbs. Example sentences from both English-foreign and Polish-native sub-corpus will be analysed.

### 3.1. Events in the simple clause

The concept of the so-called *basic sentence patterns* (Quirk, Greenbaum & Leech, 1992)  serves as a convenient departure point for the discussion of how language is used to code scenes that are basic to human experience (Goldberg, 1995). The patterns of a simple clause in English involve the following schemas:

| | |
|---|---|
| SV | The dog is barking. |
| SVO | The film fascinated me. |
| SVC | Your homework seems difficult. |
| SVA | My school is in the other district. |
| SVOO | They should give their money to the poor. |
| SVOC | Most teachers have found her quite hardworking. |
| SVOA | You can put the bag in the corner.[3] (Badio 2014, p. 191) |

The above schemas code scenes involving one participant (SV, SVC, SVA), two participants (SVO, SVOC, SVOA) or three participants (SVOO) with accompanying complements and adverbials. The finite schematic verb category codes relations between the participants. The SV pattern designates a situation in which a participant performs[4] an activity that does not act on another participant or patient. The same is true of SVA, where the A (adverbial) is used to code information about a circumstance of some activity, e.g., *in the morning, at school*. In SVC, the letter C stands for the subject complement as in *The old man seemed*

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[3]  S – subject; V – main, finite verb; O – object; C – complement; A – adverbial

[4]  Certainly the grammatical schemas such as these are not grounded in time, and so they are not marked for any particular tense.

*sad* (BNC). The SVO pattern involves two participants (human, non-human and abstract) that interact. For example:

2)    Fear of Russia preoccupied British politics (BNC)          SVO
3)    A falling apple hit John                                     SVO

Example [2] involves two abstract participants, namely *fear of Russia* and *British politics*, whereas example [3] uses the verb *hit*, which codes a physical event to bind object-person participants: *apple* and *John*. The participant coded in the subject position attracts the highest attention. Cognitive psychology (Köhler, 1929; Koffka, 1935; Neisser, 1967, 1976; Tomlin, 1995; Maruszewski, 1996) identifies it with the *figure* of a scene. Cognitive Grammar (cf. Langacker, 1991) uses the term *trajector* in a similar vein. Both terms, *figure* and *trajector*, designate the focused participant of an event.[5] Two participants are also selected by SVOC and SVOA. The former pattern has two participants with a complement that provides indispensable information about the participant coded in the object position, whereas the latter pattern provides information coded by an adverbial about circumstances of the event.

As already mentioned, the silent input video *Bolek and Lolek* was used. The main characters wished to go on holiday but had no money. Collecting scrap metal turned out to be a bad idea, but a little good luck helped them. The owner of a very old car decided to dispose of the vehicle, which made the boys very happy. They tried to start the engine, drive a little, made some plans to travel, but when the banger broke again, they sold it at a scrap metal collection point and were able to afford a holiday.

The simple clauses below contain one main verb and exemplify different events[6] of the story.

4)    Bolek and Lolek had time to relax.
5)    The man couldn't start the engine.
6)    Bolek and Lolek came back from school.
7)    The poster showed a boat.
8)    They still needed many items.

The main verb in each of the above clauses codes one event and has the task of focusing attention on the details of the interaction between the different participants expressed by the subject and object.

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[5]  The subject is also a default topic of a sentence. For example, the sentence *The lamp is over the table* is about the lamp, whereas the sentence *The table is under the lamp* is about the table.

[6]  The term *event* is used to refer to static scenes and complex situations.

Sometimes the frame of a simple clause suffices to code more than one event. The following sentence illustrates this.

9)  Jednak samochód zepsuł się w drodze.
    Lit. 'However, car broke self in way [going].'
    However, the car broke on the way.

The prepositional expression *w drodze* 'in way' invokes the idea of motion but is a nominal. One can argue that example [9] codes two events: BROKE and GOING BY CAR. The former is expressed by a finite verb form and is maximally focused, whereas the processual profile of GOING BY CAR tends to be backgrounded by the nominal profile of *droga* 'way'. The next example [10] backgrounds the second event even more.

10) Materiałów jednak nie wystarczyło.
    Lit. 'Materials-GENITIVE though not suffice-PAST-PASSIVE'.
    However, there were not enough materials.

The marked word order [10] attracts attention to the word *materiałów* 'materials' and the piece of new information coded by *nie wystarczyło* 'was not enough'. The main verb phrase *nie wystarczyło* foregrounds the idea that the boys did not find enough materials. However, the backgrounded event of LOOKING FOR MATERIALS needs to be activated as a base of the profile of *there wasn't enough of something*. In other words, the less salient concept of looking for something needs to be implicated (and so also present in the conceptualisation to a certain degree) if one wishes to understand *there was not enough of something*. In sum, this analysis argues that despite the presence of one finite verb form in this simple clause, there are two events participating in the resulting conceptualisation. The next example [11] is similar.

11) Nie pomogła wymiana oleju.
    Lit. Not helped-*feminine* change-*feminine* oil-*genitive*
    It did not help to change the oil.

The sentence inherits the processual profile of the verb *pomogła* 'helped', whereas the second event gets coded by the nominal expression *wymiana oleju* 'changing of the oil'. The processual profile of a nominal is less cognitively prominent than that of a finite verb's.

12) Bolek i Lolek byli zadowoleni z dotarcia na miejsce
    Lit. Bolek and Lolek were glad from getting (Nominal) on destination
13) They had money to buy backpacks and tickets

Interestingly, more examples of coding two events, one of which is nominalized, can be found in the sentences written in Polish-native language. The English sentences code the second, less prominent event by using a verb participle or infinitive.

14) I like listening to music. *two events* LIKE and LISTEN
15) Most car owners would hate to be without a car. *two events* HATE and BE

The main verb, subject and object in English can be complemented by a non-finite *-ing clause* or *participle clause* as in:

16) He wants *to stay*.
17) He wants us all *to stay*.
18) They like *staying up* late.
19) He made them *stand up*.

The problem with the analysis of the above examples is that one cannot easily decide whether they represent a single clause with a complement phrasal element or a complex clause consisting of the main clause followed by a non-finite infinitive or participle clause. Number [16] can be thought of as an elaboration of the structure *SVOC*, but the syntactic status of the complement is unclear. Is it a phrasal complement or a non-finite complement clause? Cognitive Grammar (Langacker, 1991) stresses that the borderline between phrasal and clausal elements is often fuzzy.

There are only two sentences written in English that code two events to be found in the corpus of story sentences.

20) They had enough money to buy backpacks and tickets.
21) Bolek started dreaming about their holidays.

Example [20] codes two events: the idea that they *had money* and that they wished (had an intention) to buy backpacks and tickets. However, example [21] is harder to analyse. It has two verb forms, *started* and *dreaming*, the first of which is finite and the other non-finite, which suggests that there is more attention on the concept of STARTING than on DREAMING. On the other hand, STARTING is too vague and can only be interpreted together with a compulsory participial

complement. Attention is drawn to the initial phase of the event designated by the word *dream*. Similarly, a sentence such as *He decided to go* communicates the idea that the character of the story hesitated but made up his mind and went. It is the decision-making process expressed by the finite verb form that seems to be more salient than the one expressed by the non-finite verb form.

In sum, nominalisation and use of non-finite verb forms are two main ways of coding more than one event in a single clause. Their processual profiles are less cognitively salient than the processual profile of the finite verb.

## 3.2. Events in subordinate clauses and other complex structures

There are 138 subordinate sentences out of the total 461 dBase sentences in the corpus. The processual profile of the finite verb of the main clause is arguably the most prominent and the event coded by such a verb-form lends its profile to the whole sentence. The following example illustrates it.

22) Lolek decided to go alone.

As mentioned earlier, the category of *clause* is fuzzy. For example, is the complement *to go alone* only a verb phrase or should it be treated as a non-finite clause? Without trying to resolve the uncertainty, the focus here is on identifying two events coded by the finite verb form *decided* and the form *to go*.

Complex syntactic structures are especially well suited for coding more than only one event. Some sentences in the corpus code as many as four events. For example,

23) They tried to find and sell some old and unusual staff to earn some money.

The event that captures most attention is expressed by the finite verb form *tried*, whereas *find* and *sell, to earn (money)* as infinitives tend to be lower ranking in cognitive salience. The concept of TRYING is not a trivial one. Its understanding involves the activation of a complex cultural frame with information that getting in the possession of money involves (in this case) effort to collect scrap metal which can be sold to a special collection point. The next example codes three events, each with a finite verb form.

24) When he got off the bus, he noticed that Bolek was waiting for him.

The concept coded by *noticed* lends its profile to the whole sentence, so it is most salient. The remaining verb forms: *got off* and *was waiting,* though finite, code a circumstance and an object participant of the whole sentence (an event, scene coded by an object clause), i.e. the structure *that Bolek was waiting for him.*

As illustrated by the next example [25], the events coded in a sentence may be physical, mental, past, present, future or hypothetical.

25) The time when they arrived home, they realized that it cannot have happened.

The physical event ARRIVE is followed by the finite form of the main verb to code the concept REALISE and the verb of the object clause referring to the past is in irrealis mood. Most attention is on the verb form *realised,* whereas the other finite verbs used in the subordinate time and object clauses are not only structurally subordinate but also conceptually less salient. In other words, structural subordination leads to lesser cognitive prominence. A similar example of a sentence in Polish is provided below.

26) Zanim Lolek dojechał do Bolka, Bolek czekał na niego z informacją jak mogą spędzić fajnie wakacje.
Before Lolek reached Bolek, Bolek was waiting for him with information how they can spend nice holidays.

The verb forms and other constructions that are used in the above sentence to provide information about events are: *dojechał* 'arrived', *czekał* 'was waiting', *z informacją* 'with information, *mogą spędzić* 'can spend'. The entire structure is (AdvCl-time) *SVO* (Non-finite wh-clause) (Object-Cl). The profile of the finite verb of the main clause (italics) is dominant, i.e. most salient, whereas the remaining events are either coded with finite verbs (*came*, was waiting, can spend) and the prepositional phrase *z informacją* 'with information'. This expression can be paraphrased as *Bolek had information* or *Bolek had news*. The subject of the main clause is *Bolek ... z informacją* 'Bolek … with information', which is a metaphor. The concept of knowing about something is coded (and thought about) in terms of a person's proximity to a piece of news, as if it was a physical object. This metaphorical coding has a relational profile of a preposition *z* 'with' filled in by the nominal *information*. It can be rephrased as […] *Bolek with information (that …) was waiting (for Lolek)*. As observed before, most attention is on the event expressed by the finite verb of the main clause, followed by finite verb forms of the subordinate clauses and non-finite, non-processual profiles of other forms (e.g. *z informacją* 'with information').

# 4. Conclusions

The writers' simple clauses, subordinate sentences, finite and non-finite verb forms as well as some other verbless constructions were analysed vis a vis their relative cognitive salience. The native-Polish writers tended to be more skilful at packaging more events into the format of a single clause than the English-foreign writers, who used finite verb forms in separate clauses. The finite verb forms (of the main clause in case of subordinate syntactic structures) are the most cognitively salient followed by non-finite participles and infinitives and non-processual nominalisations or relational prepositional phrases (e.g. *z informacją* 'with information'). The use of language as a signalling system is directed at ranking for salience of entities of a conceptualisation. The chapter has only discussed selected examples and referred to the use of basic syntactic options in coding events, states and situations. However, construal processes, whose ultimate goal is attentional ranking (foregrounding and backgrounding) also apply to the selection of morphemes, words and phonetic (in the case of speech) or orthographic conventions. Further research can thus focus on a detailed analysis of these areas of language with appropriate experimental design in order to test the theoretical claims presented in this article and other cognitive linguistics studies.

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# Insights on the nature of language from the study of gesture units

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**Abstract**

Gesture categories and gesture units are characterized according to both formal and functional criteria. The resultant functional types fall along a continuum according to the degree to which their tokens have conventionalized symbolic status. The more conventional the form/meaning pairing, the more straightforward it is to identify gestures as units. Most types of gesture categories are best viewed as having prototype structures, rather than a category structure with strict boundaries. This view on gesture aligns with some contemporary thinking about linguistic categories, which also espouses a prototype approach. The result is a coherent picture of how gesture interactions with different categories and units of spoken language, taking human audio-visual communication as dynamic and polysemiotic in nature.

**Key words:** gesture, prototype categories, semiotic systems

The tight connections between gesture use and speech production have already been a subject of study for several decades (Kendon, 1980; McNeill, 1985, 1992). On this basis, one might logically expect there to be gestural units that are analogous to linguistic units. To some degree, these expectations are borne out; we can find some formal and functional properties of gestures that parallel comparable properties of spoken language. However, the gestures that people spontaneously produce while talking do not constitute a sign language: they do not follow the kinds of normative standards involved in the production of signs of a sign language. How, then, does gesture, as its own kind of semiotic system, relate to spoken language? What does examining gesture from the point of view of categories and units reveal about its relation to language? We will focus here on manual gestures, given the special and numerous possibilities they afford for articulating forms (Streeck, 2009, ch. 3) and the wide range of their communicative functions (Müller et al., 2014, §VII).

Gestures "go with" talk in different ways, in the sense that they relate to language use on various levels. On a formal level, production of a gesture involves

a form of motoric articulation. Indeed, one could argue that speech is ultimately gestural articulation that produces sounds which bear the load of providing the major communicative information (Armstrong, Stokoe, & Wilcox, 1995). But gestures serve a variety of functions that language does as well. Gestures also provide semantic information, via deictic reference (pointing, e.g., Kita, 2003), indexing spatial reference (by showing relative locations), and via representation of entities, relations, and actions (Müller, 1998, 2014). Gestures also serve functions that would traditionally be considered pragmatic in nature, such as qualifying what is uttered verbally, showing the speaker's attitude towards the discourse topic, etc. (Cienki, 2017; Ladewig, 2014b; Bressem & Müller, 2014). In addition, gestures can relate to the structure of the talk itself, and in this way serve a discourse-structuring function, as in showing distinctions between topics by gesturing in different spaces when talking about them (e.g., Calbris, 2008). Furthermore, gestures can function on the level of interaction between the interlocutors, for example: assisting in managing the turn-taking between them, showing that one is still not done speaking by "holding the floor" with a raised hand. Overall, we find not only that gestures as units align with linguistic units on different levels, but also that gestures relate to linguistic units on multiple levels at once, as gestures are often multifunctional. The relation between categories and units in spoken language and gesture will be explored further below.

Let us turn first to the formal features of gesture units and their production before addressing functional units of gesture. In terms of their forms of production, Kendon (1980) observes that gestures are usually not monadic in form, but consist of a hierarchical structure. As Kendon describes it, a gesture unit can be seen as what the hands and forearms do from when they move from a position of rest until they come back to a rest position. This unit can consist of one or more "phrases", each of which can involve one or more phases. The core of a gesture phrase is the preparation and the stroke, the latter involving the most effortful and dynamic movement. Kendon (2004, p. 111) actually describes gesture as a "movement excursion". Its structure has to do partly with the structure of the arms and hands (Streeck, 2009, ch. 3) and the kinds of movement they afford (Kita, van Gijn, & van der Hulst, 1998), but also with how the exertion of effort, that they originate from, plays out (Boutet, 2010).

Some main points on gesture production from Kendon (1980, 2004) and McNeill (1992) can be summarized as follows. The essence of a gesture is the main stroke produced, which may be preceded by a preparation movement and may be followed by a retraction to a rest position. These three phases (preparation, stroke, retraction) can be seen as the basic building blocks of most gestures. The stroke is the phase with the greatest movement dynamics; it involves the greatest exertion of effort (Laban & Lawrence, 1947/1974). Here the hand shape and the

form of the movement have the greatest clarity. In relation to the speech, the stroke phase is usually the portion that relates most closely to the primary function of the gesture; it is through the stroke that the gesture depicts a referent, or performs a pragmatic, interactional, or other function. In these respects, the stroke phase is the essential part of a gesture; it is usually considered the minimum that is needed for constituting what researchers call a gesture. In some cases, a stroke movement is produced with no preparation; this is often the case with pointing gestures, where the hand moves 'in one go' from a rest position into the act of pointing. When there is a preparation phase, the hand is moving from the rest position to get ready to produce the stroke. In this phase, the hand shape for the stroke also begins to appear and develop. After the stroke, there may be a hold, where the hand is held in place where the stroke ended (which can be significant in relation to the production of the speech, as noted below). Following this, there may be another stroke or strokes, after which the hand eventually returns to a rest position, which may or may not be the same as the original rest position.

In relation to these formal features of a gesture unit and its subparts, it is worth considering some features of the production of gestures in relation to units of speech. The burst of effort during which the gestural movement accelerates in the stroke phase often correlates with stressed syllables, at least in languages like English, in which the stressed syllable tends to attract the intonational pitch accent (Gussenhoven, 2015, p. 716). The exertion of effort for the purpose of communication comes out in both channels, yielding parallel or partially overlapping units. This has led Iverson and Thelen (1999) to use the metaphor of conjoined oscillators to characterize how the movement processes of speech and gesture production are related to each other. The metaphor is not intended to portray speech articulation and gestural movement as rigidly tied to each other, but rather to suggest a flexible connection of interdependence. Indeed, there are several ways in which the timing of gesture phrases and the production of the speech whose ideas relate to the gesture strokes may differ. In many cases, as McNeill (1992, p. 25–26) observes, gestures anticipate the co-referential speech. This anticipation could involve milliseconds, or even a few seconds, the latter of which can make for a quite noticeable lag. However, this can easily happen in contexts where the speaker has an image-based concept in mind for expression for which it may take a moment to find the correct words – yet the gestural image can be produced more immediately and precede the speech. Sometimes the speech that is preceded by a co-expressive gesture may be the end of the phrase being uttered. In this case, the post-stroke hold may be held until the speech catches up. In other cases, the final moment of a gesture stroke may be held after the relevant speech has been uttered, such that the hold extends over subsequent speech. Whether the speaker is aware of doing this or not, this can hold the final image

of the stroke in the air, making it available for some time after the gesture stroke while the speech proceeds to the next idea. This difference in alignment of timing of information being presented in gesture and speech can allow the just-uttered idea to be metonymically kept available for perception (visually), displaying an implied connection to the new idea being spoken. The effects of this very common phenomenon in conversation have yet to be more thoroughly researched.

Kendon (1972) was one of the first to note the remarkable alignment of gesture units with prosodic units in speech. He observed that gesture phrases (preparation + stroke + optional hold) have been found to often align (with varying degrees of precision) with intonation units. An intonation unit can be characterized as "a stretch of speech uttered under a single coherent intonation contour" (Du Bois, Schuetze-Coburn, Cumming, & Paolino, 1993, p. 47). Interestingly, both intonation units and gesture phrases have been argued to be units that serve to express idea units. Chafe (1994) divides intonation units into substantive and regulatory units. In his research on spontaneous conversations in English and Seneca, he found that while regulatory units serve interactional and discourse structuring functions (among others), each substantive unit adds one new idea unit to the ongoing talk. We can compare this with McNeill's (1992) claim that gestures tend to co-occur with new information being introduced into the discourse. This shared function of substantive intonation units and gesture phrases might be explained by McNeill's (1992, 2013) growth point theory of speech and gesture production. Building on proposals from Vygotskij (1934), McNeill proposes that the microgenesis of an idea unit in spontaneous talk involves an unpacking of it into the "linear" sequential structures of the language being spoken in the moment and the more holistic, imagistic aspects, which may appear in the forms and movements of speakers' gestures. The speech and gesture production can mutually influence each other, resulting in what Kendon simply calls the speaker's utterance, which can have audible as well as visible action dedicated to it (Kendon, 2015). Later research has explored gesture as action which aids visual-spatial thinking, regardless of whether the person who is gesturing is speaking. Witness the study by Kita, Alibali, and Chu (2017) on individuals performing mental rotation tasks (having to picture how a geometric figure would look if rotated), who spontaneously gesture to assist in arriving at an answer, even when they are alone and not speaking when doing the task. As a result, Kita et al. (2017) propose what they call the "gesture-for-conceptualization hypothesis". Consequently, the debate continues regarding how gesture and speech production are related.

The system described above, of gestures units being comprised of phrases and phases, has been applied extensively in gesture research. However, a widely shared view among those who have done empirical research on gesture produced in natural settings is that sometimes it can be extremely difficult to apply the

system in practice, in order to formally mark divisions – between a preparation and the stroke phase of a gesture, for example. For some types of research, in which the larger units of "rest position – movement series – rest position" are sufficiently useful, this matter is less of a problem. Witness Leonteva's (in preparation) proposal that lawyers sometimes tie ideas together visually in their opening statements for jury trials by using long gesture units which cover a number of spoken utterances (what she calls narrative gestures). For other types of research, though, in which the sub-parts of the gesture units need to be clearly delineated, drawing the dividing lines between gesture phases can be difficult. Here one can look to the work of phoneticians, who face some similar analytical challenges with speech production as a continuous flow that needs to be parsed for analysis. Kibrik (2012) discusses how situations like this involve not simply discrete structures, like separate objects, and not continuous structures, like the rising pitch that can be played on a trombone, but rather focal structures. A focal structure can be pictured as a tube with some bulges in it (focal points). Many instances of a category may be easier to identify at their focal points than at the edges of the category, where it may be difficult to draw a dividing line. This suggests that, for some types of research, it is not only easier, but also more reliable and more relevant, to identify and code instances according to the focal points, without, or with less, attention to where the dividing lines are between the individual items. In relation to intonation units and gesture phrases, this would mean focussing on the most effortful and conspicuous parts of the gesture phase and of the intonation unit, namely the peak of the gesture stroke and the syllable receiving primary stress. Compare Dahl (1979/1987) on prototype-based categories as having an amoeba-like structure, with the focus being the nucleus in the central portion, and more peripheral exemplars of the category being the leg-like pseudopods extending from the main body of the cell.

The models Kibrik and Dahl present can be applied to various kinds of linguistic categories that function as prototype structures, such as phonemes and morphemes (see Taylor [1989/1995] on linguistic categories on various levels as prototypes). However, it is worth noting that gestures accompanying speech do not comprise a set of "gesturemes": there are not shared, normatively constrained standards for most types of gestures. In connection with this, it is worth considering the continuum along which gestures conventionally have a communicative status. With this, we turn to gestures as playing roles in various functional categories.

Kendon (1988) noted the range along which gestures function as conventional signs, something which McNeill (1992) then characterized along a continuum. At one extreme of the continuum are gestures which are used with or without speech as independent signs in a given linguistic community, like the "thumbs up" gesture to evaluate something positively, or the fist with extended thumb and

pinkie finger held next to one's ear to indicate calling someone on the phone. Dating back at least to Efron (1941), who calls gestures of this type 'emblems', this category has been recognized as involving fixed pairings of forms with specific meanings, and comprises gestures which people use intentionally to communicate something. At the other extreme on the continuum are gestures which are more idiosyncratic in nature. Examples would be gestures used when depicting various forms, shapes, or actions (see, e.g., Streeck, 2009, ch. 6). The forms produced are not conventionally linked to particular meanings, but are understood with the help of the verbal context in which they are used, and by virtue of iconic relations between the forms of the gestures (through the modes they use to depict [Müller, 1998, 2014]). In between these two extremes of conventionality of pairings of gesture forms and meanings, various other types of gesture categories have been recognized in the literature. Here I will focus on the category identified as 'recurrent gestures' (Bressem & Müller, 2014). Examples found among German speakers, but prevalent in some other European cultures, include the hand rotating at the wrist (the 'cyclic' gesture [Ladewig, 2014a]) to indicate a process going on, or that one is searching for a word, or that someone should speed up what they are doing; and the raised index finger to indicate that someone should pay attention or that they should wait a moment. Any recurrent gesture can vary somewhat in form (e.g., the cyclic gesture may involve one's arm moving from the elbow, rather than the wrist), but there is a limited range of variations possible, and the set of meanings/functions they serve also involve a limited set. Therefore, recurrent gestures do not involve a one-to-one mapping of form and meaning, but rather a several-to-several mapping, as each side (form and meaning) involves what Wittgenstein (1953) characterized as a family-resemblance category.

In terms of identifying gestures as units, this can be seen as graded along the same scale, described above. This is indicated in Table 1. Whereas emblems are normally clearer in their production, given how they function as independent signs, recurrent gestures are more variable in nature, and consequently, it may be more difficult to identify an instance of use of a recurrent gesture. Finally, at the end of the continuum, more idiosyncratic gestures vary even more greatly in form and in the degree of articulation with which they are produced. They comprise a wide range of possibilities of how they might be produced and for what purposes, meaning that not only may it be variably difficult for researchers to annotate such gestures, but also there may be great variability in the degree to which such gestures are used in conversations as communicative signs (as opposed to just being movements the speaker makes to facilitate his/her own speech production processes). In essence, gestures as a semiotic system show prototype effects (à la Rosch, 1975), in that the category has a range of types of exemplars: from those movements that are more easily identifiably functioning

as gestures (emblems), to those kinds of movements that form various kinds of sub-categories of gestures (recurrent gestures), to those movements that have a vast range of forms and functions. The latter can include representing entities in vivid depictions, smaller movements that regulate the flow of discourse (perhaps pointing toward the left and then the right while making a complex argument, to parse the discourse), or much smaller 'beats' (back and forth movements) that can add emphasis to certain words.

Table 1. Ease or difficulty in identifying gesture units, depending on gesture type

| Gesture type | Dependence on context for meaning | Identifying units |
|---|---|---|
| Emblems | little/less | easiest to do |
| Recurrent gestures | more/greater | variably difficult |
| More idiosyncratic gestures | most/greatest | variably difficult; sometimes quite difficult |

Ultimately, we see that studying speakers' gestures raises larger questions about talk as a polysemiotic communicative system. It was mentioned above that linguistic categories on various levels have been discussed by some as actually having prototype structures, with clear centers and fuzzy boundaries, rather than being categories with clear and strict boundaries. Rosch (1978) and others analyze word meanings as prototype categories. Jaeger & Ohala (1984) characterize phoneme categories as gradient, but with salient prototypes. Aarts (2007), Lakoff (1987), and Taylor (1989/1995) all consider grammatical/syntactic constructions as prototype categories. Bybee (2010, p. 2) draws the conclusion that, "All types of units proposed by linguists show gradience, in the sense that there is a lot of variation within the domain of the unit (different types of words, morphemes, syllables) and difficulty in setting the boundaries of the unit". In light of this, gestures as categories (and as a category) can be understood and analyzed in a similar, prototype manner. In other work (Cienki, 2012, 2017), I have proposed language itself might best be recognized as a prototype category. If the center of language as a prototype category is constituted by lexical and grammatical items, then there is a fuzzy boundary where it overlaps with other potentially communicative forms, such as non-lexical vocalizations, like 'um' and 'uh' (Ward, 2006). But language also overlaps with other semiotic modes and codes, such as wordless intonation contours that are vocalized (e.g., to indicate doubt in English with a rising pitch when saying 'huh'), or gestures. The fuzzy boundary of language overlaps with these other semiotic systems in a variable fashion, depending on the context. We might rely more on gestures when trying to communicate through a glass wall, but will

rely more on linguistic and non-lexical sounds when listening to, but not looking at, someone who is speaking. Spoken language, intonation, gesture, and other means of embodied expression are thus semiotic systems that overlap with each other to varying degrees, and along various time scales (Cienki, 2012, 2015, 2017). This view is coherent with approaches that treat communication as activity in a complex dynamic system (Ellis & Larsen-Freeman, 2009).

In conclusion, we can say that on one level, gestures as units are based on certain form features, which are essentially movement contours, however, the clarity of gestures as units can vary according to gesture functions. Gesture functions overlap with functions of the accompanying speech in different ways, and gesture units overlap with those of spoken language on various time scales. Prototype theory provides helpful insights for analyzing gesture units, especially in relation to units in spoken language of various kinds. The view espoused here is that of analyzing face-to-face talk in view of the complex scene in which it plays a part, namely that of polysemiotic communication.

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# The identity category: a product and/or a process

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**Abstract**

The article focuses on the category of identity and aims to compare and contrast in a cursory manner two major approaches to the issue, namely the one that views identity as a product of the rational mind and the other that expands it to embrace the socio-cultural and interactional milieu. The former sees identity as a category that is constructed as any other object category. The latter posits to move identity to exteriority where it is not only embodied but also negotiated and performed. By drawing on works from the two traditions, the article aims to provide a clearer picture of how the views on the identity construct have changed and developed, by which a conceptually clearer and richer understanding of the issue could have been achieved.

**Key words:** identity, rational, mind, socio-cultural, embodiment, development of identity construct

## 1. The concept of identity: introductory remarks

The concept of identity, seemingly obvious and even tangible to every human being causes a lot of controversy across academic disciplines, even though the research on identity does not have a long history. Taylor (1989) claims that the concept of identity was absent from scholarly investigation before the sixteenth century, and early formulations of the concept were based on philosophical reflection upon the nature of the man and the world-man relationship. Only recently has the topic begun to permeate both academic and everyday discourses, and we have been witnessing a "veritable explosion" in identity talk and research (Block, 2006, p. 34).

The earliest definition of identity as a unified internal phenomenon seems to have its roots in the word's etymology and refers to "the quality or condition of being the same in substance, composition, nature properties, or in particular qualities under consideration; absolute or essential sameness; oneness" (OED, 2002). People, however, are naturally confronted with two paradoxes of their

identity, namely, (i) of remaining the same person while changing over time, and (ii) of being a whole in face of diversity and fluidity of the external world.

In scholarly reflection and research, these paradoxes are rendered in "an inherent contradiction between a valuing of identity as something so fundamental that it is crucial to personal well-being and collective action, and a theorization of *identity* that sees it as something constructed, fluid, multiple, impermanent and fragmentary" (Bendle, 2002, p. 2). Some scholars consider identity to be an ascribed category constant across time, but others see it as consisting of many aspects that can and do change over the life course. Larsen-Freeman (2010), following the lines of constructivism, claims that every person is composed of multiple identities that exist in volatile states of construction and reconstruction.

In contemporary literature and research on identity two dominant yet opposing theoretical perspectives are taken. To some scholars identity is an "essential, cognitive, socialised, phenomenological or psychic phenomenon that governs human action" (Benwell & Stokoe, 2006, p. 3) while to others it is a public phenomenon, a performance or construction that is interpreted by other people.

In this article, a presentation of the essentialist approach to the category of identity explained with Self-categorisation theory and social identity theory will be followed by a presentation of a discursive approach explicated on the example of membership categorisation analysis.

## 2. Identity as a mental construct

Understanding identity as a mental construct descends from Descartes' assertion "I think therefore I am" and is rooted in James's initial conceptualisation of the self (James, 1890/1927) "as a property of the individual, firmly located within the mind and abstracted from experience and interaction with others" (De Fina and Georgakopoulou, 2012, p. 156). This mental representation of oneself can take shape of a prototypical self in the form of an image or a self-schema. Markus (1977) suggests that the self is a concept or a category like any other category and that people form cognitive structures about the self just as they do about other phenomena. Self-schemas, that is, cognitive generalisations about oneself derived from past experiences, organise and direct the processing of information relevant to the self. People hold self-schemas for particular domains; the domains that are personally important, for which they have well-developed self-concepts, and this implies that human identity may be said to be schematic for the domain (Markus, Crane, Bernstein, & Siladi, 1982). If, for instance, an identity of an expert teacher is considered, three properties in the domain of expertise (knowledge, efficiency,

creativity) are most frequently used to differentiate expert teachers from trainees (Sternberg & Horvath, 1995). This identity is constructed on the basis of the information from experience and interaction with others, namely, (1) experts bring knowledge to bear more effectively on problems than do trainees, (2) experts solve problems more efficiently and do more in less time, than do trainees, and (3) experts are more likely to arrive at novel and appropriate solutions to problems than are trainees.

One of the best-known theories of identity as a mental construct is the self-categorisation theory (SCT) developed by Turner and his colleagues in 1986. The underlying premise behind this theory is that people categorise themselves and others on the basis of the attributes that are particularly salient. When applied to oneself, the process enables a sense of identification with the social category, which results in behaviours and practices that people associate with a particular group. Self-categorisation is an extension of Henri Tajfel and John Turner's (1979) social identity theory of intergroup relations (SIT) which puts more emphasis on motivational and intergroup dimensions. In SCT, grounded in the work on natural categories by Rosch (1978), self-categorisation is driven by perceptual processing of real life data. Turner, however, argues that identity categories are not only conceptual but also verbal, which means that they are used in interactions whereby they are subject to alternations. Moreover SCT posits that identity categories, being psychological structures, also "have a social reality by virtue of their relation to social groups" (Widdicombe, 1998, p. 193). It is also claimed that individuals are born into a society, upon which they are ascribed specific social categories, and with time they develop awareness of these social categories that may become aspects of their self-concept. In this way, identity acquires a real psychological reality and becomes an aspect of the self-concept.

Social categorisation is a cognitive process whose outcome is a construction of schemas that may apply to whole groups, and individuals perceive themselves as either members of the group (ingroup categorisation) or outsiders (outgroup categorisation). Furthermore, "outgroups are more easily and reductively characterised than ingroups, such that ingroup identification often leads to stronger stereotyping and prejudice towards outgroups (Benwell & Stokoe, 2006, p. 25). Hence "categories operate as domains of exclusion and produce 'coercive and regulatory consequences' of their construction" (Cover & Doak, 2015, p. 548).

Social categorisation serves several psychological goals. First, engaging in social categorisation reduces the cognitive demands placed upon the perceiver. It is cognitively more demanding to interpret each person encountered as an individual rather than a member of one or more social categories. Second, social categorisation serves to enhance our self-concept and boost our self-esteem. Generally, we have the tendency to positively evaluate our ingroup and negatively the outgroup. When the ingroup-outgroup comparison is unfavourable for our ingroup then we aspire

to change our group membership. This takes us to the third reason why we engage in categorisation, namely, reducing uncertainty regarding our place in the social world. Relying on self-categorisation and social identification, we can engage in planning our future actions, interactions and expectations.

Implicit in SCT is that people can identify simultaneously with multiple groups or adopt different identity representation at different times or under different conditions or emotional states (Roccas & Brewer, 2002). The process of self-categorisation opens up a possibility of constructing multiple identification either in parallel, or at various levels of categorisation or serially depending on contexts and emotional states. For example, 'heterosexual' is a higher level identity that includes both 'woman' and 'man,' but in different contexts some other aspects of the categories 'woman' or 'man' like race, class, ethnicity, or nationality can be co-invoked, and emotions may further "colour" the network. In discourses of teaching, for instance, dissatisfied parents can attribute their child's poor classroom behaviour and academic achievement to teacher's young age and their lack of experience or to the teacher's gender as typically females are categorised as caring and nurturing and males as distant and demanding. It shows then, that identity categories form a network of self-schemas that derive from our interpretation of experiences and vary in content and in how elaborate they are. Some are interrelated (teacher and care taker) and others are seemingly separate (teacher and infant). Also, they vary in their temporal focus (past, present, future) and in the extent to which they are congruent with or discrepant from each other. In a way, people are different when they are in different contexts because they make different assumptions about themselves, and they attend to different aspects of what is going on.

Furthermore, as Markus and Nurius (1986) suggest, people may develop different schemas of themselves in view of what they would like to become, they are afraid of becoming and they expect to become. With this the authors point that the content on which identity develops are self-schemas that may differ in longevity and psychological meaningfulness across time and situations (cf. Brewer, 1991; Oyserman, 2007). Hence, identity is not only influenced by current macro- and micro-discourses, but also by those anticipated and future-oriented. Moreover, identity category, just like other object categories, has fuzzy boundaries. "This means that people have a sense that they know what their self is, even though what exactly it refers to differs from situation to situation" (Oyserman et al., 2012, p. 94). People do not always act or behave the same but are essentially the same across spatial and temporal discourses. "This does not imply that identities do not predict behaviours over time but that the predictive power of an identity depends on the stability of the contexts in which it is cued" (Oyserman et al., 2012, p. 93).

From the perspective of SIT, identity categories, pre-discursively organised and activated in social contexts, that is in the presence of other people, always operate to define identity. What is more, being essential, and organised in-advance,

they cause particular verbal and non-verbal behaviours. For example, being a woman might mean sticking to standard grammar and lexical forms in talk and to standard forms of non-verbal behaviour, because women, playing the social role of mothers and caretakers, are expected to scaffold learning and become models for the younger generation in interactional settings. Identity is based around categorisations which are essentially psychological, subjective individualized mental processes that exert an influence on both thought and overt behaviour.

More recent approaches to self-categorisation predict that identity can be expressed differently in different contexts because of differences in the relative salience of organizing self-concept structures, including individual and collective self-concepts. This means that "which identities come to mind and what they mean in context is a function of both chronic and situational cues, with some situations more likely to cue particular identities or constellations of identities than others" (Oyserman et al., 2012, p. 93). Hence, people's situational identities develop on the basis of the knowledge each individual has acquired and applied to interpret the situational contexts and the pragmatic meaning of these identities in the particular context.

In summary, the mentalist theories maintain that identity construction is mechanical, involuntary, and automatic rather than interactive. Yet, they acknowledge that a person may categorise themselves differently in different situations. What an identity means and, therefore, what is congruent with it, is that it is constructed in the interactional contexts and can motivate different behaviours. Nevertheless, these approaches still "carve the world into a series of finite categories into which their object of study is then moulded and shaped" (Benwell & Stokoe, 2006, p. 27), that is, identity is treated as fixed, unitary properties of individuals that are intersecting and overlapping, as well as articulated with a range of forms of participation in multiple communities.

## 3. Discursive identity

The shift in viewing identity as a primarily social phenomenon started in 1970s, as a reaction to research on identity in psychology. Within a decade, socially-oriented approaches blossomed. In 1985, Le Page and Tabouret-Keller published their seminal volume, which was a springboard for sociolinguistic research that relocated identity "from the private realms of cognition and experience, to the public realms of discourse and other semiotic systems of meaning-making" (Benwell & Stokoe, 2006, p. 4).

Non-essentialist approaches to the problem of identity claim that discourse is constitutive in identity creation, that is, identity cannot exist prior to discourse

and language; it is constructed and performed with language in interactions with people, institutions and cultures. As Bucholtz and Hall note,

> […] identity inheres in actions, not in people. As the product of situated social action, identities may shift and recombine to meet new circumstances. This dynamic perspective contrasts with the traditional view of identities as unitary and enduring psychological states or social categories (Bucholtz & Hall, 2003, p. 376)

Such a view of identity enables a researcher to not only see "an 'essential', cognitive, socialised, phenomenological or psychic phenomenon that governs human action" (Benwell & Stokoe, 2006, p. 4), but also to see how versions of identity are accomplished, disputed, imposed, resisted, managed and negotiated in discourse. Researchers, then, can and should "investigate the micro details of identity as it is shaped from moment to moment in interaction" (Bucholtz & Hall, 2005, p. 591). Therefore, rather than treating identity as an objective, pre-given fact, they regard it a sum of concerted social achievements that occur in everyday life in varied interactional contexts. At the most fundamental level identity formation lies in our everyday activity, both linguistic and non-linguistic, as well as conscious and unconscious.

Not only do we create ourselves when we are thinking about who we are, but we also create ourselves through our everyday actions and how we live our lives. Orsatti and Riemer (2015, p. 8) following Schatzki (1996, p. 58) argue that "our acting in the world and so our identity formation is unreflective in the sense that conscious thinking or deliberation does not precede or accompany it." Therefore, identity-making can be explained by employing a practice-oriented lens. Practice (Lave & Wenger, 1991) is not "replicative but a generative activity" which involves "the whole person acting in the world" (p. 49) "not only a relation to specific activities, but a relation to social communities – it implies becoming a full participant, a member, a kind of person" (p. 53).

In other words, in discursive approaches, our identity is not determined by our self-concepts but by how we live our lives unreflectively, when we engage in everyday activities. We actively construct social reality non-verbally and we collaboratively make social order happen in the unfolding sequences of talk. Hence, our identity formation is neither seated in our mind nor is it accomplished through reasoning, but it is embedded and achieved in our practices.

Amongst the multiple theoretical frameworks that see identity as a discursive project collaboratively accomplished in interaction, Membership Categorisation Analysis (MCA) developed by Sacks (1972; 1974; 1984; 1992), seems to be most influential and inspiring.

Sacks rather than "pursuing research that sought to categorise people into groups so as to predict behaviour, was interested in how people use and deploy ideas and notions of aggregated behaviours as they go about their routine business" (Housley & Fitzgerald, 2015, p. 3). In this sense, he did not perceive categories as mental schemas expressed explicitly in language but as practices that allow for making rich inferences (Stokoe, 2003) about "the knowledge that members of a society have about the society" (Sacks, 1992, p. 40). Consequently, Sacks did not focus on "observing that people mention social categories in the course of their interaction," rather he sought "the unique configuration of categories and their associated predicates and attributes through which social categories were deployed in any particular instance" (Housley & Fitzgerald, 2015, p. 4). He assumed that every category carries a set of activities, predicates and obligations that are associated with the category, yet, only some of the features are made interactionally salient, that is relevant for a given performance. Giving the example of "The baby cried, the mommy picked it up," Sacks (1972) explained that we understand the 'mommy' as the 'baby's mommy' because we can hear the categories, 'mommy' and 'baby' as belonging to one constellation of categories – family. We may say that picking up their babies is a category bound activity of mommies, something mommies are expected to do. Categories, then, in addition to being explicit labels, are inferential resources by which people interpret past or present conduct or predict the future behaviour, because they "are conventionally associated with activities, attributes, motives and so on" (Widdicombe, 1998, p. 53). In other words, to find attributions that are made relevant for each category, we need to look for the activities associated with each of the categories. Attributions may be explicitly pronounced or just hinted at, "indicating the subtlety and delicacy of much implicit categorisation membership work" (Baker, 2004, p. 174).

Categories are also "duplicatively organised" (Stokoe, 2003, p. 278) and bound to a wide range of characteristics. Concurrently to 'picking up babies,' 'mommies' are conceived as being of a certain age, having certain kinds of knowledge, and so forth. Categories often come together in paired relationships that Sacks called Standardised Relational Pairs (SRPs), such as 'mommy' and 'daddy', 'husband' and 'wife', 'teacher' and 'learner,' each with duties and obligations in relation to the other. So 'mommy' and 'baby' go together as part of the same family whereby 'mommies' take care of 'babies' rather than the opposite.

In interaction, the deployment of specific category labels becomes an effective way of indicating who does and who does not count as legitimate members of that category according to a current speaker, which in turn, may validate or not current interactional behaviour. Edwards writes,

> By selecting one rather than another [identity category], speakers can perform and manage various kinds of interactionally sensitive business, including their motives and reasons for doing things and saying things. … As always, for both persons and situations, if they did not *have to be* described that way (or described at all), then the way they *are* described can be examined for what it might specifically be doing. (Edwards, 1998, p. 19)

Because interactants orient to local identity categories rather than to dominant discourse categories, identity emerges as an in situ category through the temporary roles and orientations assumed by participants, such as, interviewer, joke teller, evaluator or engaged listener. Analysing what people are doing when they talk reveals that they assign categories to themselves and to others, and these categories are not only mental concepts but also verbal, that is, they can be aligned with specific lexical forms to further stipulate and modify relevant identifications in local contexts. The focus of MCA is on peoples' routine methods of social categorisation practices in local contexts that show how identities emerge, are exercised and performed

## 4. Conclusion

The aim of the article has been to present two contrastive views on the issue of categorisation in identity construction. By drawing on works from two traditions, cognitivist and socio-pragmatic, the author intends to provide a clearer picture of how the views on the identity construct have changed and developed, by which a conceptually clearer and richer understanding of the issue could have been achieved.

In the chronologically earlier essentialist view, identity is argued to develop on the pre-existing, stable core – self-concept – and denotes who a person is. Framed in opposition to this is the discursive approach that views identity categories as emerging in the vicinity of others whereby they shape and are shaped by social practices. Identity categories are also recognised and deployed actively by people who live their lives in various contexts, and by others acting in the world.

In other words, the essentialist approach looks at how we experience an 'I' and how it impacts our behaviours, whereas the non-essentialist view looks at how we become 'someone' in various contexts by making use of social practices. While both approaches recognise the omnirelevance of identity categories, it is only the discursive approach that acknowledges the relevance of these categories for the participants. What matters is how the membership categories emerge through performing certain category-specific actions.

This article is by no means exhaustive as far as the research on the identity category is concerned. Ever since the term 'identity' was elevated to a theoretical concept, it has been given many interpretations. Nonetheless, it is striking that they all seem to refer to a common underlying concept of recognition. Therefore, the article reviews the two key approaches to the issue so as to invite a return to its basic understandings grounded in human intuition and stipulated in language.

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# Perception and the nature of the phoneme[1]

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**Abstract**

Traditional interpretations of the phoneme have viewed it either in terms of physical properties (Jones, 1944b), psychological reality (Sapir, 1933, cf. Jaeger, 1980), or function, typically to serve in opposition to other phonemes within a phonological system (Saussure, 1915, Trubetzkoy 1939, Penzl, 1971). More recently, some phonologists have questioned the value of phonemes to phonological description in a post-generative world (Goldsmith, 1999).

I argue that Sapir and Trubetzkoy's ideas about the psychological reality of phonemes and the role of contrastive oppositions in sound systems are as relevant as ever, a claim justified by research in phonetics, which has demonstrated the importance of perception in some types of phonological change (Ohala, 1993, cf. Kuhl, 1991 and Sendlmeier, 2000).

This chapter considers four examples of phonological contrast and change that may have been rooted in perception. First, fortis/lenis and geminate/singleton contrasts may constitute phonological oppositions when their members are perceived as different (Lisker, 1957, cf. Penzl, 1974). Second, perceptual ambiguity may have played a role in the lack of affricates post-vocalically for old short stops in Old High German texts (Callender, 2017). Third, perception may be relevant to understanding the English Great Vowel Shift. Liberman (1995) argued that the GVS had no beginning, in that there was always some degree of allophonic variation in vowels. To extend his analysis, I argue that it is the perception of new vowels that may have triggered the shift. Finally, I suggest that perceptual salience may be responsible for the maintenance of /ai/ before voiceless consonants in southern US English, where it is often monophthongized in other phonological environments. As each of the changes discussed is rooted in the perception of new sounds, phonological oppositions and psychological reality remain relevant to our understanding of phonemes.

**Key words**: Perception, psychological basis of phonemes, phonological oppositions

# 1. Introduction

This chapter addresses two questions; first, how might perception inform our understanding of the nature of the phoneme? To this end, it also considers how phonetic studies might shape our analysis of the role of perception. Second, what would the implications be for language change?

I will argue that Sapir and Trubetzkoy's ideas about the psychological reality of phonemes and the role of oppositions within the language system are still key to our understanding of distinctive units in language. The rest of the chapter is structured as follows: sections 2 and 3 cover psychological and physical interpretations of the phoneme, respectively, while section 4 deals with functional interpretations. In section 5, I discuss the role of perception to our understanding of the nature of the phoneme, paying particular attention to the results of several scholars' phonetic experiments. I also consider perception as a factor in fortis/lenis and geminate/singleton contrasts. Section 6 covers the relevance of perception to three phonological events, namely the High German consonant shift, the English Great Vowel Shift, and monophthongization in southern US English. I will claim that perception is ultimately responsible for the origin and maintenance of phonological contrasts, and indeed the phonological system of a language itself.

# 2. Psychological Interpretations

Baudouin de Courtenay is generally credited with introducing the notion of the phoneme (and with coining the term). He defined it as "eine einheitliche, der phonetischen Welt angehörende Vorstellung, welche mittelst psychischer Verschmelzung der durch die Aussprache eines und desselben Lautes erhaltenen Eindrücke in der Seele entsteht = psychischer Aequivalent des Sprachlautes" [a unified concept, belonging to the world of phonetics, which originates by means of the psychological melding of the impressions resulting from the pronunciation of one and the same speech sound – psychological equivalent of a speech sound] (Baudouin de Courtenay, 1895, p. 9). Jones (1957, pp. 187–188) however, noted that the idea of the phoneme predates Baudouin; Korean king Se-Jong, for example, developed an alphabet for Korean in about 1450 AD, and represented two labial sounds (slightly aspirated [p] and [b]), which were thought to be non-distinctive in the language, by one grapheme. Thus, Jones reasoned, Se-Jong must have been aware of the 'sameness' of the two sounds, i.e., that they belonged to one phoneme (1957, p. 188). Jones argued furthermore that Henry Sweet may

have independently discovered the phoneme at about the same time as Baudouin, as he referred to broad and narrow phonetic transcription (1957, p. 189).

Sapir is perhaps the best-known proponent of psychological interpretations of the phoneme. He argued that it was not physical sounds that were relevant to a language system, but rather "significant entities" (1933, p. 46). Sapir recounted that Tony, a native speaker of Southern Paiute, a language indigenous to southwestern Utah and northwestern Arizona, when assigned the task of dividing the word *pa:ßa* 'at the water' into syllables, produced *pa:pa*. In Southern Paiute, stems affect stop consonants that follow them in various ways. *Pa* is a spirantizing stem, and Tony, who as a native speaker had a tacit awareness of the rule of spirantization, reproduced a stop in the second syllable when given time to think about dividing the word, even though *\*pa* does not exist outside of compounds. Thus, Sapir argued, "the ßa of speech behavior, as a self-contained syllabic entity without immediately preceding syllable, is actually felt as a phonological *pa*" (1933, p. 50). Similarly, John Whitney, his interpreter for Sarcee, an Athabaskan language of Alberta, Canada, when questioned about whether *dini* 'this one' and *dini* 'it makes a sound' were homonymous, said that *dini* 'it makes a sound' ended in /t/. Whitney's judgment may be explained by the fact that Sarcee has two final vowel types: simple vowels, and vowels with latent consonants. The second type historically were followed by consonants, which no longer exist in the absolute forms of the words, but are present in suffixes and sandhi phenomena. Thus, if the suffix –*i* 'the one who…' is added to *dini* 'it makes a sound', the resulting form is *dinit'i* (Sapir, 1933, p. 53). Whitney's judgment was thus phonetically inaccurate, yet demonstrated an awareness of the phonemic difference between the two sounds, according to Sapir (see Twaddell, 1935, discussed in section 4, for counter arguments).

As a student of Sapir, Swadesh apparently also thought of phonemes in psychological terms. He defined them as "percepts to the native speakers of the given language who ordinarily hear speech entirely in terms of these percepts" (1934, p. 118). Phonemes could be delineated by an acceptability judgment, namely "pronouncing a word with some modification in one of the phonemes. If the modification cannot be perceived by a native, it is within the range of normal deviation. If the modification seems to trouble the native, it is an extreme deviation from the norm, a distortion. If the native definitely hears some other word or feels that one has the word wrong, one may conclude that the modification has amounted to the substitution of one phoneme for another" (1934, p. 124). This would seem to anticipate Ohala's ideas about perceptual normalization and phonemic change. So while Ohala's ideas may have been groundbreaking, others were likely on a similar path as early as the 1930s.

## 3. Physical Interpretations

A number of scholars have rejected psychological interpretations of the phoneme, arguing that it should be understood in purely physical, acoustic terms. Martinet, for example, thought that a phoneme could be understood as a range of sounds surrounding its center of gravity (Martinet, 1952, pp. 4–5). The center of gravity could be thought of as an ideal realization of the phoneme, similar perhaps (although solely in an acoustic, not perceptual, sense) to later notions of phonemic prototypes (see Kuhl, 1991 and Sendlmeier, 2000), which will be discussed in section 5.

Jones, a champion of the physical camp, defined the phoneme as "a family of sounds in a given language which are related in character and are used in such a way that no one member ever occurs in a word in the same phonetic context as any other member" (1944b, p. 178, cf. 1957, p. 191). However, he did not completely reject the psychological element of phonemes, at least not by 1957, when he argued that the mentalist and physical conceptions of the phoneme together "formed the foundation upon which a complete theory of the phoneme had to be built" (1957, p. 191). Furthermore, he noted "I find the physical view more easily comprehensible to the ordinary student of languages than any other. At the same time I do not hesitate at times to resort to psychological criteria" (1957, p. 191). Jones further argued that phonemes "distinguish words from one another" (1957, p. 195), hinting perhaps at something of an affinity for functionalism. Indeed, his discussion of chronemes in particular overlapped with the ideas of Trubetzkoy, perhaps even Saussure.

Jones argued that, even when chronemes (distinctive units of length) have more than two absolute lengths, the phonological opposition remains one between long and short chronemes. For example, the long vowel chronemes in *bead*, *bean*, and *beat* are all of different lengths, as are the short vowel chronemes in *bid*, *bin*, and *bit*, yet the distinction remains two-way: long vs. short (Jones 1944a, p. 161, cf. Jones, 1957, p. 198). Absolute chroneme length is less relevant than relative length. So, while Jones viewed himself as a proponent of the physical conception of the phoneme, he may have had one foot in the functional camp.

## 4. Functional Interpretations

One of the more common approaches to describing the phoneme (and a guiding principle of Prague School phonology) is as a functional entity that exists in opposition to other sounds in a language. Functional approaches to phonology

probably owe their origin to Saussure, who defined the phoneme in terms that would also indicate some consideration for the role of perception: "la somme des impressions acoustiques et des mouvements articulatoires, de l'unité entendue et de l'unité parlée, l'une conditionnnant l'autre" [the sum of the acoustic impressions and articulatory movements, of an understood unity and a spoken unity, one conditioning the other] (Saussure, 1915, p. 65). For Saussure, language was a system based completely on the opposition of its concrete entities (1915, p. 149, cf. Penzl, 1971, pp. 17–18).

One of the true champions of the functional interpretation was Trubetzkoy, who defined phonemes in several ways, including: "Phonologische Einheiten, die sich vom Standpunkt der betreffenden Sprache nicht in noch kürzere aufeinanderfolgende phonologische Einheiten zerlegen lassen" [Phonological units, which, from the standpoint of the language in question, cannot be divided into smaller sequential phonological units] (1939, p. 34). In another definition, he specified the "phonologische Einheiten" more explicitly as "die Gesamtheit der phonologisch relevanten Eigenschaften eines Lautgebildes" [the totality of the phonologically relevant characteristics of a sound structure] (1939, p. 35). Thus, despite his status as a functionalist, he might have agreed, to some degree, with Jones's "family of sounds". He did not think of phonologically-relevant characteristics in Sapirian terms however, and even directly criticized Baudouin's definition of the phoneme as the "psychischer Äquivalent des Sprachlautes" on the grounds that every phoneme has several possible realizations, and there can thus be no one-to-one correspondence between a speech sound and a psychological equivalent (1939, p. 38).

It is probably fair to describe Trubezkoy as a functionalist with tendencies that overlapped with the physical, acoustic approach. For example, his rules for determining mono- *vs.* polyphonemic sounds invoked some physical properties; phonemes had to be one syllable, for example, and produced through one unified articulatory gesture (1939, pp. 50–51). Trubetzkoy seemed to allow for some flexibility though, at least when it came to geminates, which he argued were monophonemic (although they could be biphonemic when they occurred at morpheme boundaries, see Trubetzkoy 1938, p. 156), bisyllabic, and bimoraic (1938, pp. 164 and 168). His analysis of geminates therefore violated three of his rules for monophonemes, as they are divided over two syllables, longer than single phonemes, and occur in positions typically occupied by two phonemes (1939, pp. 50–54). For further discussion on the segmental interpretation of geminates, including how Trubetzkoy anticipated autosegmental approaches to their modeling, see Callender (2010).

Although Trubetzkoy did not directly address the role of perception in delineating phonemes or in phonological change, he seemed to be aware of some

of what Ohala would later write about categorical perception. He argued that the opposition t-d could only be interpreted as gradual if it were part of a phonemic system with another dental stop with voicing greater than that of /t/ or lesser than that of /d/ (1939, p. 68).

Twaddell (1935, p. 9, cf. Trubetzkoy, 1939, p. 38) criticized proponents of the mentalist interpretation of the phoneme on the grounds that the mind cannot be studied directly. He also doubted Sapir's conclusions about the psychological reality of phonemes for two reasons. First, he argued that speakers (such as John Whitney and Tony, discussed in section 2) who characterized different sounds as identical may have simply failed to make distinctions that trained phoneticians would have. Second, Sapir's informants may have been demonstrating unconscious knowledge not of phonemes, but of morphemes (Twaddell 1935, p. 13).

Twaddell did not hold back his criticism of those in the physical camp either; he was one of the first scholars to address the non-uniqueness of phonemes in certain phonological environments. For example, /p/, /t/, and /k/ overlap to a degree with their lenis counterparts after /s/, as they are voiceless, yet unaspirated. For Twaddell, there was no reason to prefer one series of phonemes over the other in that position (1935, p. 41). Schane (1968, pp. 711–713) argued that sounds could simply be left unspecified in non-contrastive positions, echoing Trubetzkoy's notion of the archiphoneme, which he defined as "die Gesamtheit der distinktiven Eigenschaften…, die zwei Phonemen gemeinsam sind… Wenn im Deutschen der eindimensionale Gegensatz d-t im Auslaute aufgehoben ist, so ist das Oppositionsglied, welches dabei in der Aufhebungsstellung auftritt, vom phonologischen Standpunkte aus weder eine Media noch eine Tenuis, sondern es ist 'der nicht-nasale dentale Verschlusslaut überhaupt'" [the totality of distinctive characteristics… that are common to two phonemes… When the one-dimensional opposition of d-t is removed word finally in German, then the oppositional member that remains in that position is, from a phonological standpoint, neither a media nor a tenuis, but rather the 'non-nasal dental stop in general'] (1939, p. 71).

Twaddell was perhaps unique among pre-generative linguists in his claim that the phoneme was a fictitious unit (1935, p. 53), yet there are clear indications that his thinking on the topic overlapped with the Prague School linguists. He described /p/, for example, as "the sum of *all* those phonological differences which correspond to a bilabial articulation as opposed to alveolar or palate-velar, a voiceless articulation as opposed to voiced, a stop articulation as opposed to fricative" (1935, p. 48). Further, he noted, "We combine the stops of 'pin, sopping, nap' as corresponding to a single phoneme, not because of any constant quantitative characteristic, but because of a constant qualitative relation to the stops of 'bin, sobbing, nab' (among other relations)" (1935, p. 57).

# 5. Perception

If Saussure, Trubetzkoy, and others are correct that phonemes serve as contrastive elements in a phonological system, then it is worth considering the role of perception to our understanding of them. In section 5.1., I discuss Ohala's (1987, pp. 216–217, cf. 1993) ideas on the role of perception to certain types of language change.

## 5.1. Categorical Perception

Ohala noted that the allophone inventory associated with a phoneme cannot account for all possible micro-variations in its pronunciation. I sometimes demonstrate this point in my general linguistics classes with the following thought experiment: let's suppose that we were arbitrarily to assign 50 options for voice onset time, constriction duration, and aspiration duration (leaving out formants for the moment, and bearing in mind that there could actually be far more options, as we are dealing in milliseconds) for a stop consonant. 50 x 50 x 50 yields 125,000 possible sounds for a single consonant, which of course would leave us with an impossibly unwieldy phonological system. Therefore, as Ohala explained, we order similar enough sounds into categories (phonemes). As Kuhl (1991, cf. Sendlmeier, 2000, pp. 113–116) argued, we may think in terms of phonemic prototypes, which function as perceptual magnets, pulling in sounds that are similar enough to be perceived as the same phoneme. The breakdown of this perceptual normalization may lead to phonological change (Ohala, 1993, p. 239).

## 5.2. Phonetic Experiments

Jaeger (1980) tested the notion that speakers group allophones together with their associated phonemes through two experiments. In the first, subjects were conditioned to respond to words containing [kʰ] via a low-voltage electrical shock to the finger, which was applied for some, but not all, words containing the sound. Her subjects' Galvanic skin responses to a series of words presented auditorily were then measured (Jaeger, 1980, pp. 235–238). Responses for words containing both aspirated /k/ and non-aspirated /k/ (in /sk-/ clusters) were higher than for words without /k/. Thus, Jaeger argued, subjects had generalized [kʰ] to a phonological position without aspiration; their responses to both allophones were the same (1980, pp. 242–243). In the second experiment, subjects were tasked to press a button to indicate the presence or absence of [kʰ]. Jaeger found that subjects once again grouped aspirated and unaspirated /k/ together (1980, pp. 246–250). In other words, their perceptions of the two sounds were the same.

In an attempt to understand the nature of the fortis/lenis distinction, Reed and Wang (1961) conducted a perceptual experiment that involved tape splicing to remove the /s/ before fortis stops in words such as *spy*, *sty*, and *sky*. They found that most subjects identified the resulting word onset as a lenis sound; they identified *(s)cab* as *gab* more often than *cab* (1961, pp. 79–80). (Recall Twaddell's concerns about phonemic overlapping, discussed in section 3). They concluded that aspiration was a more relevant cue than voicing for the fortis/lenis distinction (1961, p. 81, cf. Lotz, Abramson, Gerstman, Ingemann, & Nemser, 1960, pp. 71–72), yet they did not consider that there may be different cues to the distinction word initially than after /s/ (see Fink, 1974, p. 153).

Lotz et al. (1960) had similar findings, but noted that perception could vary according to an informant's native language. Native speakers of American English, where the contrast between fortis and lenis stops is neutralized after /s/ (as they are unaspirated and voiceless in that position), consistently heard lenis stops there. By contrast, native speakers of Puerto Rican Spanish, which has distinctive stop voicing but not aspiration, tended to identify stops following /s/ as fortis (1960, p. 74), as did native Hungarian (1960, p. 75) and Thai (which has a three-way stop contrast: voiceless aspirated, voiceless unaspirated, and voiced) speakers (1960, pp. 75–76).

Reed and Wang and Lotz et al. did not consider constriction duration, which is likely salient in fortis/lenis contrasts. Lisker, having conducted a tape-splicing experiment that allowed him to manipulate constriction duration of medial stop consonants, reported some ambiguity in informants' perception of *rupee* in the 70 to 80 ms range. Below 70 ms, subjects reported hearing *ruby*, but for durations greater than 80 ms, they reported *rupee*. When subjects were presented with the word *ruby*, they exhibited some perceptual ambiguity around 105 ms, with most reporting *rupee* for longer and *ruby* for shorter durations. Lisker (1957, pp. 46–47) noted that "the sum of all other cues bearing on the p-b contrast balances the effect of a 30 msec difference in closure duration".

The geminate/singleton contrast is also informative to our analysis of the role of perception in phonological distinctions. As with fortis/lenis distinctions, constriction duration may be the primary perceptual cue to distinguishing geminates and singletons in multiple languages, including German (Dieth & Brunner, 1943, Kraehenmann, 2001), Marathi (Lisker, 1958), Turkish (Hankamer, Lahiri, & Koreman, 1989), and Italian (Giovaradi & Di Benedetto, 1998). There are other possible cues to the fortis/lenis and geminate/singleton contrast, including voice onset time (Klatt, 1991), formant transition (Fujimura, 1971), or both (Stevens and Klatt, 1974). What is key to the role of perception though is the fact that informants consistently report hearing either a fortis or lenis sound (or a geminate or singleton), rather than something in between. Ohala's claims about categorical perception hold true for the contrast.

## 6. Relevance for Phonological Change

In this section, I consider how perception may play a role in some types of phonological change, beginning with the High German tenues shift, which is traditionally reconstructed (in somewhat simplified form, leaving out geminate affricates) as follows: /p, t, k/ → /p$^h$, t$^h$, k$^h$/ → /pf, ts, kx/ → /ff, ss, xx/ → /f, s, x/ (Braune, 1874). One problem with the traditional reconstruction of the shift is the fact that affricates do not survive post-vocalically where West Germanic short stops had been, and there is little in the historical record to indicate that they had been there. Scheer (2005) therefore argued that the affrication stage for that position should no longer be included in reconstructions. Nevertheless, there is some evidence that affricates may have been present in weak position in the past, namely the *Pariser Gespräche* (Gusmani, 1996), possible further shifting of affricates in dialects (Hoffmann, 1900, Tarral, 1903, Seibt, 1903), OHG affricates after liquids (Braune, 1874), and comparative evidence from Liverpool English (Honeybone, 2001[2]).

In Callender (2017), I argued that affricates may have been present in Old High German in weak position, but that the distinction between affricates and fricatives may not have been perceptually salient for OHG speakers. As such, a scribe could have written a fricative to represent a sound that may have been (phonetically) either a fricative or an affricate. There seems to be some similar ambiguity in Liverpool English (see Honeybone 2001, or Callender 2017 for discussion). Thus, in Old High German, perceptual ambiguity may account for the lack of an expected form (affricates) in the textual record.[3]

The English Great Vowel Shift, which involved raising and diphthongization of long vowels from Middle English, is another phonological event that may have roots in perception. Liberman (1995, pp. 219–222) argued that the shift had no beginning, and that diphthongal variants had always existed for the high long monophthongs. His analysis raises the question why the phonological system did not simply continue along contentedly, with allophonic variation of the old long monophthongs. One possible answer is that, once speakers of late Middle English began to perceive the diphthongs as "different", new phonemes developed and set the chain shift in motion. Perhaps Penzl was indeed on the right track in his claim that all language change is preceded by allophone development (1971, p. 18).

As a third example of the role of perception in phonological change, I would like to consider monophthongization of /ai/ in southern US English, which has

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[2] See Callender (2012) for discussion on the reconstruction of the shift's phonetic mechanism.
[3] I do not have space to include a treatment of the OHG forms here, but invite the curious reader to have a look at my discussion in Callender (2017).

been around before voiced consonants for at least a century, but is more recent before voiceless consonants (Anderson, 2002, pp. 86–88, cf. Bernstein, 1993). In an interview that I conducted, together with Meg Campbell Sloan (following Montgomery, 1993), of two native speakers of South Carolina English (a 70-year-old man and a 55-year-old woman), we obtained the following results:

| Male (age 70) | [ai] | [a] | [aᵊ] | Contexts |
|---|---|---|---|---|
| Before voiceless C | 36 (100%) | | | 36 |
| Before voiced C | | 12 (48%) | 13 (52%) | 25 |
| Word final | | 53 (91%) | 5 (8.6%) | 58 |

| Female (age 55) | [ai] | [a] | [aᵊ] | Contexts |
|---|---|---|---|---|
| Before voiceless C | 25 (100%) | | | 25 |
| Before voiced C | | 2 (11%) | 16 (89%) | 18 |
| Word final | | 60 (98.4%) | 1 (1.6%) | 61 |

As the table shows, both speakers consistently maintained a diphthong before voiceless consonants, but exhibited monophthongization or at least diphthongal reduction to [aᵊ] before voiced consonants and word finally. The female speaker's use of the terms *mica mine* and *wildlife* provided an example of her contrasting pronunciation. In both cases, she maintained the diphthong before the voiceless consonants (/k/ and /f/), and reduced it before the voiced consonants (/n/ and /l/). She also offered an acceptability judgment that was telling, namely that speakers from the Piedmont region of South Carolina were "twangy"; as an example, she offered the phrase *white rice*, pronounced with [a] in each word. She seemed unaware that she was, herself, monophthongizing and reducing diphthongs in other phonological environments.

The maintenance of /ai/ before voiceless consonants in southern US English may be due to perceptual salience of the diphthong in that position. Whereas most speakers may not perceive a difference between /ai/ and its reduced or monophthongized forms word finally or before voiced consonants (unless they are paying particular attention to them), they seem to do so before voiceless consonants, where monophthongization is marked as unacceptable. Thus, while perceptual ambiguity may have led to a quick merger of OHG affricates and fricatives in post-vocalic position where West Germanic short fortis stops once stood, perceptual salience of diphthongs before voiceless consonants in southern US English may be responsible for their continued presence there, despite their loss or reduction in other phonological contexts.[4]

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[4] Although, as Anderson (2002) has noted, diphthongization before voiceless consonants may be on the ascendance.

## 7. Conclusions

If we accept the premise of categorical perception in phonology, then we are acknowledging that the phoneme is a contrastive entity, in line with traditional functionalist thought. The central role that perception plays in the development, maintenance, and in some cases, collapse of phonemic contrasts indicates that Sapir was right to emphasize the psychological reality of phonemes. It is the perception of a given group of similar sounds as one phoneme that makes a phonological system viable; without it, the physical/acoustic variation available in the system could quickly become overwhelming.

The breakdown of perceptual normalization may account for some phonemic splits. In Callender (2017) I argued that it may have provided the impetus for positional affrication (word-initially, after /l/ and nasals, and in the place of West Germanic geminates) and spirantization (post-vocalically for old short fortis stops) in the High German tenues shift. While there was likely phonetic variation beforehand, it may have been the perception of affricates and fricatives that triggered the phonological stages of the event. Conversely, perceptual ambiguity may account for the absence of some expected forms, which may explain the quick merger of OHG affricates and fricatives post-vocalically and the general absence of affricates in that position in the OHG textual record. Finally, perceptual salience may contribute to the maintenance of contrasts, such as /ai/ vs /a/ before voiceless consonants in southern US English. A perceptual study of native speakers of this variety is an opportunity for further research.

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# Form and meaning in cognitive morphology

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**Abstract**

The paper applies Ronald Langacker's conception of Baseline/Elaboration (B/E-organisation) to derivative morphology. It is claimed that the B/E approach to linguistic structure, according to which "structure and function are indissociable like the two sides of a coin" (Langacker, 2016, p. 24), offers a viable, theoretically interesting account of the dynamic relationship between the form and meaning of morphological units.

**Key words**: Cognitive Grammar, B/E organisation, semasiology, onomasiology

## 1. Introduction

Pointing to the Saussurean roots of cognitive grammar, John Taylor (2002, p. 39) observes that

> […] cognitive grammar is driven by a view of language that arguably does have much in common with certain aspects of Saussure's thought. I refer to Saussure's insistence that the basic object of linguistic enquiry is the linguistic sign, and to his characterization of a language as a system of signs. Langacker has explicitly acknowledged the affinity with the Cognitive Grammar approach.[1]

The "affinity with the Cognitive Grammar approach" becomes clear when one takes into consideration Ronald Langacker's analysis of the relations obtaining between the *semantic pole*, [S] (which corresponds to Saussure's *signified*), and

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[1] Language, Langacker (1987, p. 11) notes, "is symbolic in nature. It makes available for the speaker – for either personal or communicative use – an open-ended set of linguistic *signs* or *expressions*, each of which associates a semantic representation of some kind with a phonological representation. I therefore embrace the spirit of classic Saussurean diagrams […], with the understanding that explicit, substantive characterization is required for the elements they depict."

the *phonological pole*, [p] (which corresponds to the Saussurean signifier), of a composite linguistic expression such as, for instance, *tea bag* (cf. Langacker's, 2008, p. 162 analysis of *jar lid*; see also Kardela, 2019, for discussion):
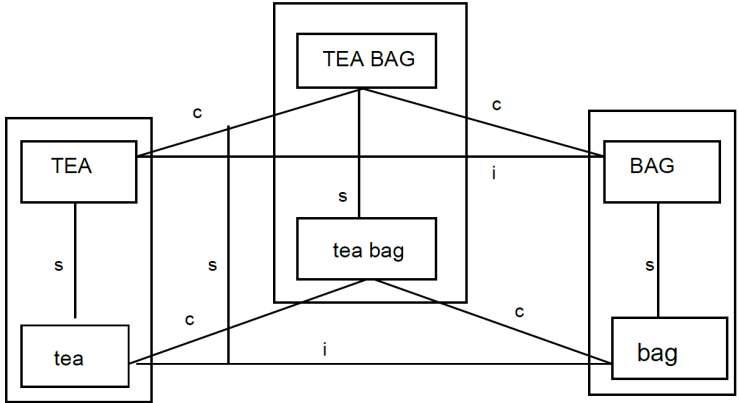


Fig. 1. The relations between the phonological pole, [p], and the semantic pole, [S], of a linguistic expression, where *c=composition*; i= *integration*, *s=symbolization*

Langacker's reformulation of the linguistic sign, which serves as the basis for the characterization of linguistic units such as *tea bag*, departs from Saussure's conception of the sign in two important respects: (i) it offers a "seamless" account of the signified-signifier relation, i.e. the relation between the "S"-pole and the "p"-pole of a linguistic expression and (ii) it allows us to view the signifier-signified relation in "dynamic" terms by treating the meaning of linguistic units as emergent structures. The paper accounts for the internal dynamicity of linguistic units in terms of two closely interrelated concepts: *baseline* and *elaboration* (B/E elaboration) as envisaged in Langacker (2016). The paper is divided into several sections.

In Section 2, we offer a discussion of asymmetries between the phonological and semantic poles of linguistic expressions, which, in our view, can be adequately accounted for by Langacker's model of grammar. Section 3 briefly sketches the structure-function relation obtaining between the two poles of linguistic expressions as envisaged in Langacker (2016). The discussion of B/E organization prepares the grounds for recasting in Section 4, in terms of B/E, the A(utonomy)/D(ependence) asymmetry in morphology as discussed in Tuggy (1992) and Kardela (2000).

## 2. The lexicon-grammar continuum and meaning-form asymmetries

In cognitive linguistics, lexicon and grammar form a continuum of linguistic units.[2] "Where does lexicon stop and grammar begin?," Langacker (2008) asks. And he answers (p. 22):

> The point […] is that there is no particular place. But this is not to say that no distinction can be drawn. The key parameter is specificity. To the extent that symbolic assemblies are specific, they would tend to be regarded as lexical, both traditionally and in CG. To the extent that they are schematic, they would generally be considered grammatical. Thus lexicon can be characterized as residing in fairly specific symbolic assemblies, and grammar in more schematic ones.

That lexicon and grammar form a gradation of lexical units rather than being clearly separable follows from an extendable nature of schematic units. Thus, as noted by Langacker, there exist a great number of schematic expressions which "conform to the stereotype of neither lexicon nor grammar" (Langacker, 2008: 20). Examples are units such as X *crane* X+POSS *neck* (*John craned his neck*), $V_s$ X *in the* $N_b$ (*John slapped Greg in the face*), and *a* $N_1$+*less* $N_2$ (*a moonless night*). Expressions of this kind, Langacker observes (p. 20),

> are non-stereotypical for grammar by virtue of containing specific lexical elements. They are non-stereotypical for lexicon because of their partial schematicity. They are not themselves full-fledged expressions but patterns abstracted from them and potentially used in forming new ones. To this extent they are grammar-like, since grammar by definition comprises the patterns used in forming complex expressions. In an effort to preserve the standard dichotomy, X *crane* X+POSS *neck* could be assigned to the lexicon, as it contains the indisputably "lexical" elements *crane* and *neck*, whereas *a* $N_1$+*less* $N_2$ might be considered grammatical because its only specific components (*a* and -*less*) are "grammatical markers". This will not solve the problem, however. Apart from being aprioristic, it leaves us with an arbitrary choice in cases like $V_s$ X *in the* $N_b$, where $V_s$ and $N_b$ are intermediate in specificity ($V_s$ designating a certain type of action, and $N_b$ a body part).

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[2] For a discussion of the "continuum of language areas," see, for example, Dirven and Verspoor (2004, pp. 69–70).

In conclusion, Langacker observes (p. 20)

What the linguistic data seems to be trying to tell us is that lexicon and grammar form a gradation instead of being sharply dichotomous. That, of course, is a central claim of CG, which further contends that the full gradation reduces to assemblies of symbolic structures.

It should be observed that many symbolic expressions and especially idiomatic expressions such as, say, *crane one's neck* or *kick the bucket* exhibit an *asymmetry in constituency* between their phonological and semantic poles. Thus *crane one's neck* means 'stretch one's neck in a particular direction in order to see something better' and *kick the bucket* means 'to die'. The same is true in the case of "pure" morphological formations. Thus, whereas in the case of regular composite forms such as *tables*, we have a one-to-one correspondence between the constituency at the semantic and phonological poles (cf. 1a), in the case of irregular formations such as *feet* (1b) or *caught* (1c), blends like *motel* (1d) and acronyms, no one-to-one correspondence holds (cf. Kardela 2019):[3]

(1) a. [[TABLE/table] – [PL/s]]
    b. [FOOT/foot] ~ [FEET/feet]PL
    c. [CATCH/catch]] ~ [CAUGHT/caught]PRET
    d. [[MOTOR] – [HOTEL]/motel]]
    e. [[NORTH ATLANTIC TREATY ORGANIZATION]/[nato]]

The asymmetries in the constituency between the semantic and phonological poles of linguistic expressions are of direct theoretical interest to any cognitive account of linguistic structure which takes seriously the "lexicon-grammar continuum" thesis. For, seen in this light, the idea of morphology based on the concept of a "morpheme", traditionally defined as "the minimal unit of meaning" (see, for example, Fromkin et al., 2014, Chap. 3), must be revised. Revision is also necessary of any traditional views of morphology which divide the entire discipline into several subparts: "derivational morphology," "inflectional morphology," "exceptions and suppletions," and the so-called "other morphological processes," including back formations, compounds, blends, initialisms and acronyms.

In what follows we propose to look at morphological structure in terms of "dynamic associations" which, as we claim, following Langacker (2016), hold

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[3] Capital letters stand for the semantic poles of the linguistic expressions, whereas small letters, for their phonological poles.

between the phonological and semantic poles of linguistic expressions. We will thus enquire into the nature of the relationship between *structure* (form) and *function* (meaning) as discussed in Langacker (2016).[4]

## 3. Structure and function in cognitive grammar

Commenting on the nature of the structure-function relations obtaining in a linguistic unit, Langacker (2016, p. 16) notes that

> [s]tructure is often identified with grammar, and function with meaning. Or structure with lexicon, morphology, syntax, and phonology, and function with things like semantics, pragmatics and discourse functions. This is really a kind of disguised metaphor. It's a manifestation of the substance/activity distinction which I think is ultimately wrong.

For Langacker, the substance/activity distinction is a false dichotomy, given that the "formal" elements are substantive only metaphorically [and because] [p]honological, lexical, and grammatical structures consist in patterns of processing activity, just as meanings do (Langacker, 2016, p. 17).

Because, as Langacker notes, the patterns of processing activity apply at all levels of conceptual organization, where "a structure of any size consists in organized activity," the *structure vs. function* is "just a matter of perspective" (p. 17).

Yet, assuming, as Langacker does, that conceptual organization is an organized activity and is a matter of perspective, the question arises how can concepts, defined in Taylor (2002, p. 43) as "the principles of categorization", structure for us a clear and coherent picture of experienced reality? Clearly, some sort of *stability* is to be expected in this regard. Langacker (2016, p. 17) comments:

> A pattern of activity can be *stable* in the sense of being "entrenched" and able to recur: an *established processing routine* (a *unit*, in CG terms) [which] to some extent […] decomposes into subpatterns – parts within the whole.

These subpatterns, Langacker observes (p. 17), "are connected in various ways [by] association, temporal sequencing, partial overlap." As a result, the structural configuration of an expression emerges. When we attempt to describe structures involved in it p. 17),

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[4]  See also Kardela (2019) for an extensive discussion of Langacker's views of the substance/ form relationship based and his theory of B/E elaboration.

we are implicitly describing [their] functions: we are describing lower-level structures, and we're describing how they map onto aspects of higher-level structures, and this amounts to characterizing the functions.

But what exactly *is* structure? Structure, Langacker notes, is a configuration in which entities (or elements) are connected via three types of connections, including (p. 20)

(i) overlap in the activity comprising the connected elements;
(ii) association, such that one structure tends to activate another;
(iii) operations (e.g. comparison, categorization, assessment of relative position in some field).

It should be stressed that in Langacker's theory, the same elements can be connected in many different ways; they produce structures that can be further enriched with, or *augmented by* (Langacker's term), elements and/or connections. For Langacker, connection "produces a new entity which represent[s] a higher-level of organization," where (p. 21)

(i) the higher-level entity has emergent properties, minimally including the nature of the connections and any adjustments the component elements undergo;
(ii) a component of a higher-level entity may participate individually in further connections;
(iii) a higher level entity (being a structure in its own right) can also participate as a whole in further connections. This is so when the connections depend on emergent properties;'
(iv) when this happens at successive levels, the result is hierarchy.

When a higher-order entity, i.e. a set of connected elements, transfers its potential to a higher-level structure and starts functioning in this structure, a *grouping* emerges. The process of the emergence of grouping can be presented as follows (p. 23):
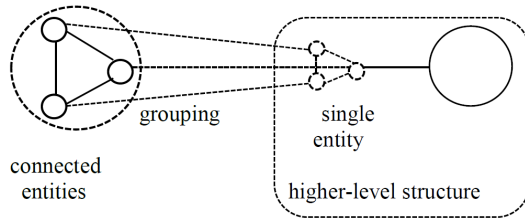


grouping

single
entity

connected
entities

higher-level structure

Fig. 2. The process of grouping

We have already quoted Langacker as saying that "structure vs. function is […] a matter of perspective." Functions, Langacker further observes, "require structures for their implementation," that is, "a vast assembly of semantic and phonological structures connected by relations of symbolization, categorization, and composition." Structure vs. function is, to use his formulation, "a shorthand for symbolic structure/function vs. semantic structure/function." Seen in this light, the *semantic pole* of an assembly (i.e. an assembly's semantic structure/function) is part of its symbolic structure/function. If so, all asymmetries involving constituency can now be handled in a systematic way. Says Langacker (p. 27):

> Consider […] a noun phrase, or a *nominal* as I call it. People commonly believe that a nominal consists of a determiner plus a head noun, but obviously that doesn't work. There are all sorts of nominals that don't have a determiner or don't have a head noun. We have *the package*, which conforms to that pattern. *Packages* is a nominal but there is no determiner. Or, *those wrapped in newspaper* is a nominal, but it has no head noun. There is nothing that all nominal structures share, unless you start arbitrarily putting in zero forms to make them look like they have those other elements. The only common feature is the semantic function of nominal reference.

In conclusion (p. 28), Langacker observes:

> Semantic function is essential for grammar. It is more fundamental and more consistent than things like grammatical constituency.

If semantic function is more important than grammatical constituency, then an obvious question to ask is how one can distinguish between, say, *agentive –er derivatives* and *instrumental –er derivatives* in English, i.e. between derivatives such as *printer* 'a person who prints' and *printer* 'a machine that prints'? One can do this by invoking the notion of *system*, which is characterized by Langacker (p. 28) as "a set of elements that fulfill a certain function […]." This set of elements, called by Langacker *exponents* or *members* of the system, are *mutually exclusive*; they are, as Langacker puts it, "in opposition to one another in neural terms [and being] connected by *inhibitory* (rather than *excitatory*) links" (p. 28). The exponents of a system, Langacker observes, "are partially defined by what they are *not* – their place in a system of opposition. [Thus] in the system [i a u], [i] is partly defined by not being [a] or [u]." Exponents of a system are therefore "contrasting instantiations of the same schema." (p. 28) In the case of the *–er* suffix, the agentive and instrumental suffixes will thus be treated as "contrasting instantiations" of the *–er* suffix schema, hence serving the same function, with the links between them forming a relationship of categorization. The function/

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schema-related categorizing relationship between the three senses of the –*er* suffix can be presented as follows (*er*-AG = *printer* (human); *er*-INS = *printer* (machine); er-LOC = *container*; based on Langacker's diagrams, p. 29; cf. Kardela, 2019):
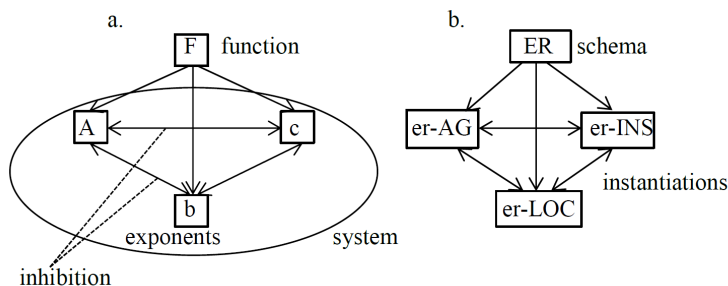


Fig. 3. The schema/function based categorizing relationship
between the various senses of -*er*

Now, in order to account, in terms of a Cognitive Grammar approach, for the asymmetries shown in (1a-e), we have to introduce two distinct yet interconnected notions: *baseline* and *elaboration*. Below we give the original formulations of these notions (p. 36):

(i)    The notions baseline and elaboration pertain to asymmetries observable in any facet of language structure or its conceptual and phonological basis.

(ii)    The baseline (B) is already established, in place, or under control. Its elaboration (E) by augmentation, adaptation, or further processing – produces a structure that may itself function as B at another stage or level of organization.

(iii)    B/E organization has thus a temporal aspect, B in some sense being *prior* to E.

(iv)    However, this happens on very different time scales and may just be a matter of inherent organization (or 'logical necessity').[5]

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[5] B/E organization involves a variety of phenomena, including

(i) the conception of *norm*, in which case, as Langacker (2016, p. 37) notes, "any kind of norm is a baseline [and] departures from it are elaborations;"

(ii) linguistic change, where "the current state of a language is a baseline [and] change constitutes elaboration;"

(iii) categorization, in which case "the categorizing unit is a baseline used to apprehend the target, which departs from it in terms of greater specificity or a conflict in specification;"

(iv) the conception of prototype involving a complex category, where "prototype is the baseline from which other variants develop by extension, specialization, or schematization;"

(v) a number of asymmetries including concrete/abstract, or physical/mental, where "the first element provid[es] the basis for apprehending the second." (p. 37).

For our purposes, it is important to bear in mind that B/E organization includes what Langacker calls A/D asymmetry (autonomy-dependence asymmetry). A/D Asymmetry is defined as follows (Langacker, 2016, p. 39; cf. also Langacker, 1987, p. 300):

(i)    In A/D organization, A is autonomous – with the potential to be manifested independently – and D is dependent on A, which it requires for its full manifestation.

(ii)    Conceptually, a thing tends to be autonomous, whereas a relationship – consisting in connections – is dependent on its participants (the entities connected).

(iii)    Phonologically, vowels are autonomous and consonants dependent on them, consisting in modulation of the sonority they provide.

(iv)    Likewise, the manifestation of prosodic features – like accent or tone – depends on segmental (primarily vocalic) content, with which they temporarily coincide.

The idea of A/D asymmetry has also been used to account for the stem-affix combination in morphology (cf. Tuggy, 1992; Kardela, 2000). In what follows, we take a fresh look at A/D asymmetry, recasting it in terms of baseline and elaboration.

## 4. B/E asymmetry in morphology

On the basis of traditional morphological analysis, David Tuggy,[6] offers an A/D Asymmetry – based account of stem-affix combinations. For a point of departure for his analysis, Tuggy takes Langacker's (1987, p. 300) definition of *dependence*, according to which "one structure, D, is dependent on the other, A, to the extent that A constitutes an elaboration of a salient substructure of D." Couched in these terms, the stem-affix relationship is said to involve the *mutual elaboration* of the stem's and affix's *elaboration sites* (*e-sites*)(cf. Kardela, 2000, p. 50; modified):

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[6] According to traditional morphological analysis (Tuggy, 1992: 238),

(i) affixes are "bound morphemes" in the sense that they "they cannot be unattached," whereas stems are "free and can occur without any other morphemes attached," an affix "is intrinsically incomplete and needs a companion in order to be manifested linguistically;"

(ii) stems are "semantically heavier" in the sense that they "are often said to have lexical content;"

(iii) affixes are productive and "can attach to an unspecifiably large number of different stems," while stems are said to "permit a relatively small number of affix combinations to be use with them;"

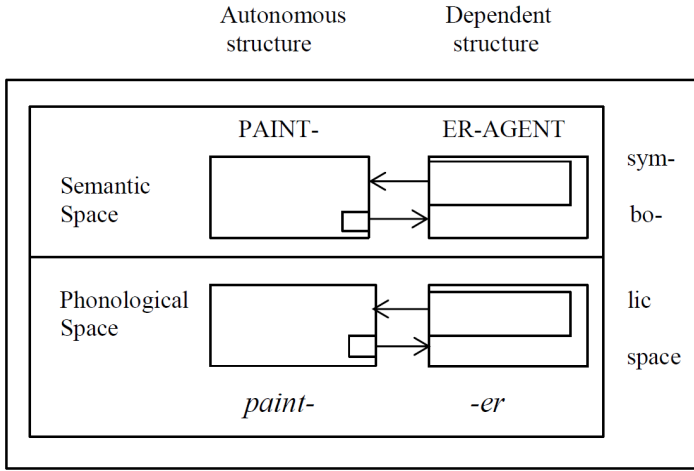(iv) stems have "greater phonological weight than affixes."

Fig. 4. The mutual elaborative relations between the stem and the affix

The diagram shows two linguistic units: a dependent structure, the suffix *-er*, and an autonomous unit, the stem *paint-*. In this configuration, the autonomous structure elaborates both the semantic and phonological poles of the dependent structure, and the other way round: the dependent structure elaborates the semantic and the phonological poles of the autonomous structure. Elaboration is marked by arrows; the smaller boxes within larger boxes stand for elaboration sites.

Note that the sizes of the elaboration sites differ: the stems' elaboration sites are larger than those of the affixes because the stem, in contrast to the affix, is the basic carrier of semantic content, hence its elaboration site is smaller than that of the affix. Put differently, because the suffix *–er*, in order to be able to function in the composite structure [[PAINT/paint]-[ER/er]] must get more semantic and (morpho)phonological information relating to the affix-stem combinability than the stem, the size of its e-site must be larger than that of the stem's.

Still, having adopted Langacker's "form-function idissociablity thesis," we need an explicit characterization of the relations which hold between the two poles of expressions as presented in Fig. 1. It is precisely at this point that B/E organization proves to be of great help.

First, we have to introduce, following Langacker, the conception of *strata* and the distinction between *core* and *periphery layering*.[7] In Langacker's theory,

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[7] According to Langacker (2016, p. 40),

When we talk about B/E organization, there are always three elements involved: there is B, the baseline; there is E, the elaborating structure; and there's BE, the combination or the result of that elaboration. These exhibit certain asymmetries: B is prior to E, B is typically more substantive

B/E organization involves what he calls *layering* – an arrangement, in terms of *core* and *periphery* – of *strata*, where "each stratum ($S_i$) is a *substrate* for the next ($S_{i+1}$), providing the basis for its emergence" and where "$S_{i+1}$ elaborates $S_i$ by invoking additional resources allowing a wider array of alternative" (p. 41). The layering of strata via the elaboration process can be presented as follows (Langacker, 2016, p. 45):[8]

a. Elaboration          b. Alternative elaborations
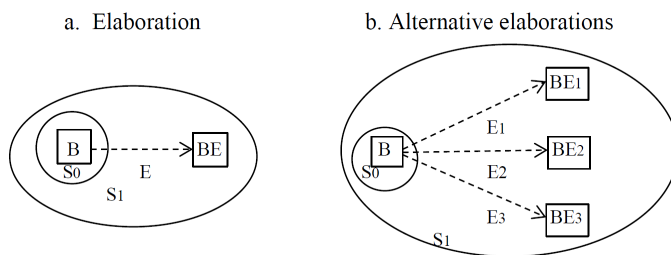
Fig. 5. Ways of elaborating a baseline

In view of the above, consider now the formation of the plural form *cats* as depicted in Fig. 6(a) and discussed in Langacker (2016, p. 54), and the formation of the irregular plural *geese*, given in Fig. 6(b):
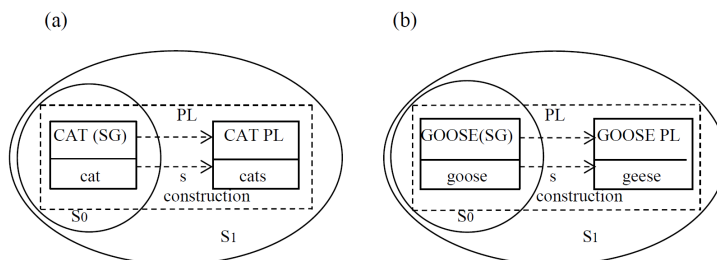
Fig. 6. The B/E organization of *cats* and *geese*

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than E, and BE is more complex than B. In (37)(f), for instance [see directly below – H. K.], the vowel [a] is the initial baseline; it's more substantive (sonorous) than the elaborating structure, [y], which is a glide. The result of the elaboration, [ay], is more complex than either of these individually. In view of these asymmetries, B/E organization represents a kind of layering, also describable in terms of *core* and *periphery*.

Fig. 37 (f) (Langacker, 2016, p. 40; adapted):

$$\text{[a]} \;\overset{y}{\rightarrow}\; \text{[ay]} \;\overset{l}{\rightarrow}\; \text{[ayl]} \;\overset{z}{\rightarrow}\; \text{[aylz]}$$

[8] In Fig. 5, only two ways of elaborating a baseline are shown; two other types: *elaboration via chain of elaborations* and *dimensions of elaborations* (alternate directionality of elaboration), are not discussed here.

Note that under Langacker's definition of baseline and elaboration, the form *cats* in Fig. 6(a) conforms to the elaboration process shown in Fig. 5(a), where *cat* is the baseline (B), hence $S_0$, and *cats* is the elaboration (BE), hence $S_1$. In the case of *geese*, however, the situation is different. As before, the form *goose* in Fig. 6(b) is the baseline and *geese* is the elaboration, but in contrast to *cats*, *geese* is an alternative elaboration of *goose*, hence conforms to the representation shown in Fig. 6(b). Note also, that in contrast to *cats*, which is a prototypical (hence *core*) plural formation, *geese* is not; for, seen through the prism of Fig. 6(b), *cats* represents a $BE_1$ formation, while *geese*, which a is a non-prototypical plural formation, a $BE_2$ composite structure.

We can now extend the conception of B/E organization to all morphological structure. In connection with this, let us distinguish between *semasiological* and *onomasiological elaboration* – E-Sem and E-Onom elaboration, respectively.[9] E-Sem involves the semasiology-based B/E-organization of a linguistic unit's meaning/function, whereas E-Onom concerns the onomasiology-related B/E-organization of a linguistic unit's semantics/function.

Thus, with regard to E-Sem, let us assume that the elaboration in this case involves what the cognitive literature terms as the *network model of interrelated senses*. A good illustration of this type of elaboration is the network model of the English suffix *–er*, discussed in Panther and Thornburg (2003: 297; also discussed in Kardela, 2019):
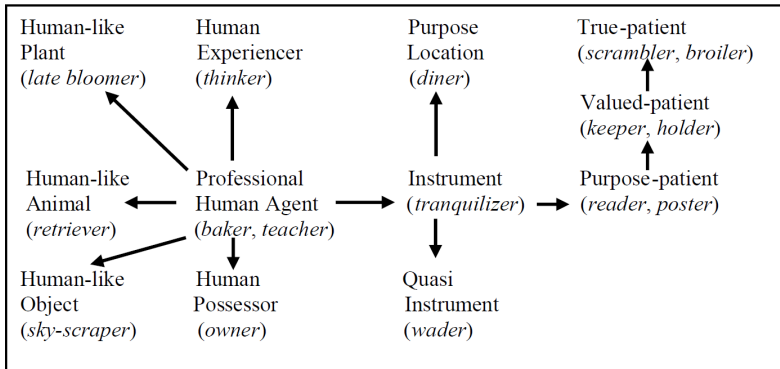


Fig. 7. The network of the interrelated senses of the suffix *–er*.

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[9] For the semasiology-onomasiology distinction, see, for example, Dirven and Verspoor (2004). For an onomasiological approach to morphology, see, among others, Dokulíl (1962/79), Grzegorczykowa and Szymanek (2001), Štekauer (2005) and Janda (2011).

Turning to E-Onom elaboration, it should be noted that often in the onomasiological literature, a distinction is made between the *derivational category* and *derivational type.* In particular, as argued by Szymanek (1988), a given functionally established derivational category can subsume one or more derivational types, depending on how many *co-functional formatives* are used to realize this category. The category *agent noun* in English, for instance, looks as follows (Szymanek, 1988: 60; adapted):



| AGENT NOUN | Type 1: x-er (e.g. *painter*) |
|---|---|
| | Type 2: X-ant (e.g. *informant*) |
| | Type 3: X-ee (e.g. *escapee*) |
| | Type 4: X-0 (e.g. *cook*-0) |
| | … |
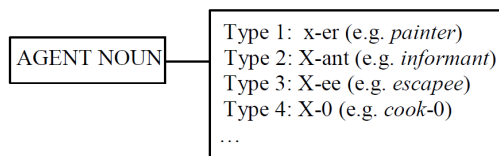
Fig. 8. The category agent noun and its derivational types

We can combine now Figs. 7 and 8 to arrive at a unified B/E account of the elaborative relations involving the suffix *–er* (cf. Kardela, 2019, p. 254):
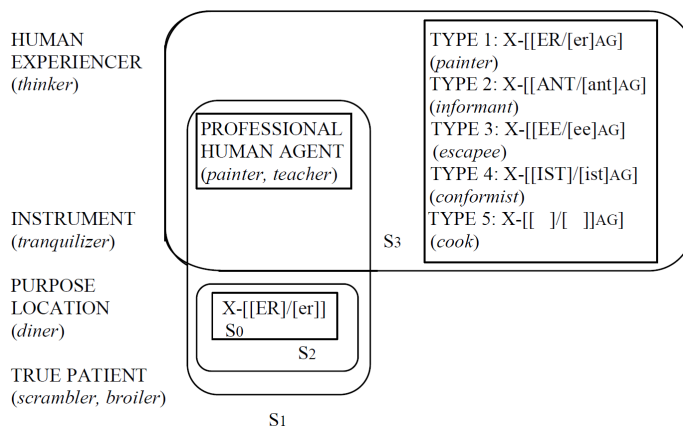


Fig. 9. E-Sem and E-Onom elaborations in morphology

Fig. 9 shows two kinds of relationships involving the English suffix [[ER]/[er]]: (i) the E-Sem elaboration obtaining in the network of interrelated senses between the various semantic roles realized by *–er* (i.e. [PROFESSIONAL HUMAN AGENT], [HUMAN EXPERIENCER], [INSTRUMENT], etc.) and (ii) the E-Onom elaboration, which holds between the grammatical agentive category [PROFESSIONAL HUMAN AGENT], coded by *–er*, and, co-functional with *–er*, suffixes such as *–ant*, *–ee*, *–ist*, *–0*. The meanings of the co-functional suffixes, which appear in the TYPE-box in capital letters, name the "agentive qualities" of agent nouns such as *painter*, *informant*, *escapee*, *conformist*, *cook*, etc.

## 5. Conclusion

The cognitive grammar analysis of the –*er* suffix developed in this paper, while focusing on the conceptual, dynamic aspects of linguistic structure, takes into account the structural/generative view of word formation. This is understandable as no linguistic description develops in a theoretical vacuum. The problem is, however, what elements of the previous or competing theories can be incorporated into the new approach and how. After the period of the so-called *Second Cognitive Revolution*,[10] after the total rejection by cognitivists of practically all mainstream/generative grammar insights, the "voices of moderation" can now be heard in the Cognitivist camp to the effect that many solutions offered by main stream linguistics are valuable and deserve due attention. In this connection, it is instructive to quote from Onysko and Michel (2010, p. 5; also quoted in Kardela, 2019, p. 255):

> These recent voices stressing the importance of investigating word formation in the light of cognitive processes can be interpreted from two general perspectives. First of all, they indicate that a structural approach to the architecture of words and a cognitive view are not incompatible. On the contrary, both perspectives try to work out regularities in language. What sets them apart is the basic vision of how language is encapsulated in the mind and the ensuing choice of terminology in the description of the processes. While a generativist, a structuralist. and by a similar token an optimality theoretic view […] assume innate governing modules that formulate rules of language production and a separate word store as the mental lexicon, cognitive linguists tend to see structures and regularities emerging from a network of interconnections guided by general cognitive processes instantiated in language use. […] cognitive linguistics takes a constructionist position on language, arguing in terms of lexical networks, emergent schemas, and associative patterns that create possibilities of expression, in contrast to a generativist-structuralist viewpoint of setting boundaries on language production via constraints operating on binary logic. In this way, cognitive linguistics concedes closely to the self-organizing nature of humans and their language whereas generativist-structuralist perspectives represent external boundaries as given in the institutionalized order of human interaction.

Asserting that "a structural approach to the architecture of words and a cognitive view are not incompatible" does not mean of course that the proposals advanced by structural/generative linguistics can be automatically incorporated into

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[10] It is generally acknowledged now that while the *First Cognitive Revolution* started with Noam Chomsky's Generative Transformational Grammar, the linguistic models pursued within the general Cognitive paradigm, including Ronald Langacker's Cognitive Grammar, represent the *Second Cognitive Revolution*.

cognitive analysis. The idea of B/E organization which involves the layering of strata mechanism clearly precludes this possibility. As Figs. 2, 3, 5 and 9 show, the unit's phonological pole (Saussure's signifier) is, from the point of view of B/E organization, "immersed" in the "open-ended" semantic/conceptual structure (Saussure's signified) with no visible sense of semasiological or onomasiological direction of the signification process. Yet, to reiterate, many "traditional" solutions can be contemplated in the cognitive linguistics paradigm; the only problem is how to recast them in cognitive terms. This paper proposes a method for doing this.

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# Thomas Mann's *The Magic Mountain* (1924): A questioning of health, rationality, and the romantic tradition

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**Abstract**

Thomas Mann's (1875–1955) epic novel *The Magic Mountain* (1924/1996) turns upside down the conventional axiology of the experiential categories of health and rationality, as well as of the romantic idea of a *Bildungsreise* or educational journey. The complex narrative describes a profound personal change of the main hero Hans Castorp, which takes place in opposition to the values of the conventional bourgeois society and against the background of the social and political condition of Europe on the verge of World War I.

**Key words**: axiology, health, illness, journey, love, rationality, Romantic, space.

## 1. The author and his work

The German writer Thomas Mann (1875–1955) grew up in Lübeck, in a wealthy Hanseatic family. In 1912 he spent some time in a sanatorium in the Swiss Alps, visiting his wife Katja, who was undergoing treatment for a lung disease. The writer learned on that occasion that he was prone to develop the disease himself (Łukowski, 1995, p. 663).

The complex novel *The Magic Mountain* (1924/1996) is partly patterned on Mann's personal experience. The main hero Hans Castorp, a young engineer studying for a career in shipbuilding, comes from a Hanseatic family based in Hamburg. He arrives in Davos to spend three weeks with his sick cousin Joachim Ziemssen, who is preparing for a military career. Having been diagnosed – like Mann himself – for potential tuberculosis, he decides to remain in Davos with the sick. The stay extends for seven years because Castorp falls in love with a mysterious Russian woman Clavdia Chauchat. At the same time he becomes confronted with two opposite worldviews – the Italian Lodovico Settembrini represents rational humanist liberalism; his opponent Naphta embodies the

principles of authoritarianism and terror. Both these worldviews reflect the political conflicts current in Europe at the beginning of the 20ᵗʰ century.

Castorp's long contact with the inhabitants of the Magic Mountain results in a profound personal change. By deciding not to the return to the flatlands, he rebels against his conventional middle class background and also questions the conventional senses of health and rationality. When the war breaks out in Europe, Castorp returns to the lowlands. As a result, his long educational journey does not come to a positive conclusion.

## 2. Health, rationality, and axiology

As two fundamental principles of human experience, health and illness do not lend themselves to straightforward interpretations. In a very general sense, a healthy organism correctly carries out all its functions, which leads to physical, social, and mental well-being (Godman & Payne, 1981, p. 371). Illness is more than a disease, that is, various pathological factors and physical ailment accompanying them (Sontag, 1999). It also includes the reactions and attitudes of the individual and their social network to the condition, as well as cultural symbols and patterns of behaviour related to it (Kleinman, 1978 qtd. in Głowacki, 2009, pp. 123–124).

The fundamental opposition of health-illness overlaps with conventional axiological preferences. Most people want to be healthy and stay among the healthy rather than be sick and stay among the sick. Such conventional attitude is reflected in Castorp's response to Dr. Krokowski's inquiry on his arrival in Davos:

> It was touching to see how Hans Castorp struggled to be polite and master his drowsiness. […] he said something about three weeks, mentioned his exams, and added that, thank God, he was perfectly healthy. "You don't say!" Dr. Krokowski replied, thrusting his head forward at a derisive slant and smiling more broadly. "Then you are a phenomenon of greatest medical interest. You see, I've never met a perfectly healthy person before." (Mann, 1924/1996, p. 16)

As a physician, Dr. Krokowski voices the idea of the relativity of the concepts of health and illness. Mann, however, wholly inverts the conventional pattern of culture-based expectations. Though Castorp shows mild symptoms of disease, no ailment accompanies them as yet. As a result, his overall condition and behaviour show no signs of a full-fledged illness. Castorp, however, decides to stay in Davos. He subordinates himself to "the genius of illness" (Mann, 1924/1996, p. 602) and wants to be with other patients more seriously ill. The long stay among them has

a positive effect on him – he discovers the world of higher ideas thorough the books that he reads and the conversations in which he engages. He also develops empathy and compassion for the sick, thus leaving his individualism and egotism behind.

Two conditions make human actions rational. First, according to the state of knowledge of the agent, their action must lead to desirable results. Secondly, the agent must also take into account the expectations about the behavior of other people in the environment, which serve as means to attain their ends (Penkala-Gawęcka, 1998, pp. 120–121 qtd. in Głowacki, 2009, p. 121; Weber, 1922/1978). Castorp's decision to stay in sanatorium Berghof is irrational in that it does not lead to the completion of education in the flatlands and the start of professional activity related to it, which would be the expected course of action. It also goes against his conventional middle-class background, which was a factor stimulating the achievement. Castorp makes it clear to the Dutchman Mynheer Peppercorn, with whom Klavdia returns as a travelling companion:

> I was not a military man myself, I have chosen a civilian profession, as you have perhaps heard, a sturdy, reasonable profession, of which it is even said that it may bring nations closer together, but of which I was never particularly fond, I must admit. As to the reasons, I can only say that they lie in darkness, lie there together with the origins of my sentiments toward your traveling companion […] For the sake of her love and in spite of Herr Settembrini, I subordinated myself to the principle of irrationality, to the principle behind the genius of illness […] I have forgotten everything, broken off with everything, with my relatives and my profession in the flatlands, with all my prospects […] (Mann, 1924/1996, pp. 601–602).

Castorp thus gradually gives in to a life full of contemplative and intellectual experience, which stands in clear contrast to his predispositions and practical activity expected of him in the flatlands. The change takes place gradually:

> […] young Hans Castorp was caught up in a great many questions and distinctions – the sort that dear old Joachim did not think it was his duty to be concerned about, but for which, as a civilian, Hans Castorp had begun to feel a responsibility, even though down in the flatlands he had never noticed such questions, probably never would have noticed them, but certainly did here […](Mann, 1924/1996, p. 383)

It was not the intended part of his visit in Davos, which was to last for the "rational" three weeks. For a contrast, Joachim longs for the flatlands, where he wants to pursue a military career that entails attending to rational and mundane duties. Hans's loss of interest in the flatlands is thus also the loss of interest in the conventional and mundane way of life there. Uncle James Tienappel, who

visits Davos to persuade Hans to return to the flatlands and reassume rational action, quickly leaves Berghof without any success because Castrop is by then fully immersed in the way of life on the Magic Mountain.

The universal human tendency to perceive and categorize various aspects of experience "in terms of good-bad" is always correlated with the plus-minus nodes of the schema of scale (Wierzbicka, 1998, p. 210 qtd. in Krzeszowski, 1997, p. 226). Such parameters are "more or less explicitly present in every valuation" (Krzeszowski, 1993, p. 310; 1997, pp. 57–58, 109–111). In a typical context, health is evaluated as good and, as such, it is paired with the axiological plus node; illness, evaluated as bad, is paired with the minus node. Mann purposely turns the conventional scale upside down. Castorp says to Mynheer Pepperkorn: "[…] I subordinated myself […] to the principle behind the genius of illness […]" (Mann, 1924/1996, p. 601). Illness – because it facilitates his intellectual and spiritual growth – is regarded as good and is paired with the plus node of the axiological scale.

The plus-minus nodes of the axiological schema of scale also correspond to the respective nodes of space orientations, such as up-down, front-back, or centre-periphery, which arise directly from human experience (Johnson, 1987, p. xxxvi; Krzeszowski, 1997, p. 57). Mann pairs the plus-minus and the up-down nodes in the opposition of the Magic Mountain and the flatlands with the contrast of the intellectual and the mundane. The relation functions as the main structuring principle of the narrative. Because intellect is commonly regarded as positive, the plus node of the axiological schema is paired with the orientation 'up' represented by the Magic Mountain. However, intellect is also conventionally associated with rationality, and rationality is a major element of the culturally accepted pattern of human conduct, which has its roots in the classical culture and its dominant model of the Great Chain of Being (Lakoff & Turner, 1989, pp. 166–169). In spite of it, Castorp regards his irrational behaviour as positive. The plus-minus nodes of the axiological schema of scale are thus inverted in this aspect of the narrative: the irrational is paired with the plus node and the orientation 'up' whereas the rational is paired with the minus node and the orientation 'down'. Rationality is also questioned by the inversion of the spatial opposition of centre-periphery. In a conventional axiology, central is regarded as positive and important; peripheral is regarded as negative and unimportant (Krzeszowski, 1993, p. 312; 1997, pp. 121–123). Hamburg, to which Castorp should have returned if he had acted rationally, is much more central in the social, economic, and political sense than Davos, located on the peripheries of the German-speaking world: "It is a long trip […] from Hamburg to those elevations" (Mann, 1924/1996, p. 3). From Castorp's perspective, however, important and positive things happen in Davos; unimportant and negative things happen in the flatlands.

That Mann decided to set his novel in a sanatorium located in the Swiss Alps may not be accidental. In an influential essay titled "Germany and the Germans", he explains:

> A trip out of the Reich, say across Lake Constance, into Switzerland, was a trip out of the provincial into the world, – no matter how strange it may appear to regard the tiny country of Switzerland as "world" in comparison to the large and powerful German Reich with its gigantic cities. Still it was perfectly true: Switzerland, neutral, multilingual, under French influence, breathing western air, – notwithstanding its miniature format – was actually far more European, far more "World" than the political colossus to the north […] (Mann, 1945, p. 3)

Berghof, which treats people from various countries of the world, is also "multilingual" and cosmopolitan. It is there rather than in the predominantly German and much less cosmopolitan flatlands that Hans Castorp comes into contact with diverse intellectual and political ideas.

As Castorp returns to the flatlands where the war breaks out, the inverted patterns assume their regular orientations. The brutality of the irrational war in which he participates is an antithesis to the sublime intellectual experience on the Magic Mountain. Though in a new form, the non-intellectual is still paired with the orientation 'down'; however, the irrational is now also connected with the conventional minus node and the orientation 'down'. The social and political centre – the flatlands – reassumes its importance; the little and peaceful Switzerland again becomes peripheral and unimportant. The centre, however, is still negative and the peripheries are still positive.

## 3. The romantic tradition

Romantic nature is more than a landscape that provides the background for human actions. It often acts as a stimulus for meditation of a solitary subject "concerned with central human experiences and problems" (Abrams, 1999, p. 178). The subject usually defies "common consciousness […] sentiments and thoughts", as well as other standards of the conventional society (Grierson, 1962, p. 229; Harding, 1983, pp. 42–43). No longer "controlled by the social consciousness which checks eccentricity" (Grierson, 1962, p. 230), the solitary individual becomes a non-conformist or even a social outcast (Abrams, 1999, pp. 178–179). He often engages in a quest for self-realization which takes the form of *exzentrische Bahn* 'eccentric way'. On such journey he experiences the division of

the mind. The fragmentation is countered by "love" acting as a cohesive force and a unifying factor of human existence (Abrams, 1973, pp. 292–294; 1999, p. 178). The journey ends in the return to where the subject had started and culminates in him having the imagination augmented (Abrams, 1973, pp. 237–238, 255–256, 293–294).

In Mann's novel, the high altitudes and nature of the Swiss Alps are more than just the background for the events. Castorp stays in the place

> where one looked down on the world and its creatures from the contemplative retreat of five thousand feet and thought one's thoughts, even if they were probably the result of enhanced activity of the body, which was caused by soluble toxins and made your face burn with a dry flush. (Mann, 1924/1996, p. 383)

He becomes concerned with questions and ideas more complex and profound than those with which he was occupied in the flatlands. His quest for self-realization takes on a more dramatic form when he is confronted with the political views of Settembrini and Naphta. As a result, Castorp experiences the division of the mind, but does not succumb to either of the influences. He falls in love with Klavdia Chauchat and – as a result – remains on the Magic Mountain for seven years "for the sake of her love, and in spite of Herr Settembrini" (Mann, 1924/1996, p. 601). His feelings and individual judgement now matter more than a bourgeois life governed by family rules, customs, values, and education directed at a practical career of an engineer.

Castorp thus becomes a middle-class non-conformist. Like other German Romantic heroes, for example Friedrich Hölderlin's (1770–1843) *Hyperion* (1797–1799), Johann W. von Goethe's (1749–1832) *Faust* (1833), or the heroes of Novalis's (1772–1801) *The Novices of Sais* (1802) and *Henry von Ofterdingen* (1802) (Abrams, 1973, pp. 237–252), Castorp goes on a circuitous journey, which represents human education in the individual and the collective sense. Though love for Klavdia to some extent counteracts the "fragmentation" that he experiences being exposed to two opposite ideologies, the final outcome of the "eccentric" journey is negative. He returns to where he had started because the war breaks out. The romantic outcast again becomes a social conformist. Because he is forced to assume the values that stand in a dramatic contrast to those experienced on the Magic Mountain, his imagination is not augmented. The effect of self-realization that he has experienced is thus likely to be lost:

> Farewell, Hans – whether you live or stay where you are. […] Adventures in the flesh and spirit, which enhanced and heightened your ordinariness, allowed you to survive

in the spirit what you probably will not survive in the flesh. (Mann, 1924/1996, p. 706).

Castorp's love for Klavdia thus loses its unifying force. But the war in Europe is also an antithesis to a more general sense of love:

There were moments […] when you saw the intimation of a dream of love rising up out of death and this carnal body. And out of this worldwide festival of death […] will love someday rise up out of this, too? (Mann, 1924/1996, p. 706).

The negative outcome of Castrop's personal love for Klavdia now translates onto the overall condition of Europe. That is why Mann's epic novel can be read as a denial of the romantic *Bildungsroman*.

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# Ernest Hemingway's short story *Cat in the rain* (1925): A prototype of narrative and emotion

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**Abstract**

Ernest Hemingway's (1899–1961) short story "Cat in the rain" (1925/1953) describes the weakening of emotional bond between an American couple living in Italy and the gradual emergence of romantic affection between the wife and the keeper of the hotel in which they are staying. Adopting the perspectives of Cognitive Poetics (Gavins & Steen, 2003; Lakoff & Turner, 1989; Stockwell, 2002; Turner, 1991, 1996) and narratology (Hogan, 2003, 2011), the analysis makes two claims: 1. Hemingway's narrative reflects a prototypical pattern of the literary plot of its genre. 2. Metaphors and metonymies functioning in the structure of the narrative represent various aspects of a prototypical scenario of romantic love. Both elements make the short story convincing in spite of its condensed form.

**Key words**: emotion, metaphor, metonymy, narrative, prototype, romantic love.

## 1. Introduction

Narratives usually mean more than sequences of events that make them up. Ernest Hemingway's (1899–1961) short story "Cat in the rain" (1925/1953) concisely describes the weakening of relationship between an American couple living in a hotel in Italy and the gradual emergence of emotional bond between the wife and the Italian hotel-keeper. Though only a few pages long, the narrative owes much of its condensed effect to Hemingway's skilful blending of a prototypical narrative structure with an equally prototypical representation of various stages of romantic love by means of novel uses of conventional conceptual metaphors and metonymies.

## 2. Methodology: Prototypes, narratives, and emotions

Contemporary cognitive linguistics claims that conceptual categories involve prototypical elements in their centres and some fuzziness at their boundaries (Rosch, 1975; Lakoff, 1987, 12–57). As a result, some of the members are judged as more representative than other members. Thus, for example, for most people CHAIR is a more prototypical element of the category FURNITURE than CARPET or TABLE LAMP (Evans & Green, 2006, p. 254).

Cognitive Poetics applies such principles of categorization to the analysis of literary texts. It assumes that literary genres, narratives, and characters can also be typical and atypical (Lakoff & Turner, 1989; Stockwell, 2002; Gavins & Steen, 2003; Gibbs, 2003). Because narratives communicate universal ideas, emotions, and values, their effect to a large extent depends on prototypicality of their structures and contents.

Narratology, in turn, is mainly concerned with shared elements of narrative patterns of individual literary genres. Its beginnings go back to Vladimir Propp's (1928/1968) analyses of Russian folk tales within the formalist tradition (Jameson, 1972, pp. 64–69). Narratologists generally focus on

> the way that narrative discourse fashions a story–the mere sequence of events in time–into the organized and meaningful structure of a literary plot. … The general undertaking is to determine the rules, or codes of composition, that are manifested by the diverse forms of plot, and also to formulate the "grammar" of narrative in terms of structures and narrative formulae that recur in many stories, whatever the differences in the narrated subject matters. (Abrams, 1999, p. 173)

Joseph Campbell's (1949) theory of mono-myth and Tzvetan Todorov's (1969) description of the "grammar" Boccaccio's (1313–1375) *Decameron* (1353) are well-known analyses that revealed common meaningful patterns in literary works. More recently, Patrick Colm Hogan (2003, 2011) employed cognitive and narratological criteria in the description of narrative patterns of stories that reflect prototypical emotions. Such narratives often depend for their form and subject matter on novel uses of conventional metaphors and metonymies (Crisp, 2003, pp. 99–113; Kövecses, 2002, pp. 43–55; Lakoff & Turner, 1989, pp. xi–xii, 101; Stockwell, 2003, pp. 105–119).

## 3. Prototypical narratives

A prototypical short story aims at achieving what Edgar Allan Poe (1809–1849), reviewing Nathaniel Hawthorne's (1804–1864) tales, called "a certain unique and single *effect*" (1842/1986, p. 589 cit. in Abrams, 1999, p. 286). Its narrative involves five elements. The realistic setting introduces the location and the time of the events. Weather can be a part of the setting that provides clues to the general mood of the characters. The exposition contains information about the characters usually before they begin to change in the course of the events. In the complication some dramatic event occurs and a problem emerges out of the situation of the characters. The complication leads to the climax, which often involves some conflict between the characters. In the resolution the conflict is decided and the expectations of the characters may be confirmed or denied (Abrams, 1999, pp. 224–228; Cassill, 1978, pp. xvii–xix, 689–695). The narrative usually begins close to a climax (Abrams, 1999, p. 286) and follows the time line without any flashbacks. The number of characters is limited and they are not developed in detail. Some balance between the focus on the characters and the external action (Abrams, 1999, p. 286) also contributes to the prototypicality of the narrative. Finally, many short stories involve a metonymic relation of the PART FOR WHOLE type between a single word and their theme (Cassill, 1978, p. xxiv), which emphasizes their message.[1] The "recognition that stories are at the heart of cognitive understanding" (Stockwell, 2002, p. 124) means that prototypical narratives are likely to produce the most convincing effects.

Hemingway's narrative has all prototypical elements of its genre.[2] It begins in the realistic setting of a hotel somewhere in Italy, whose room faces the sea, the public garden, and the war monument located in the square. People come to the monument, so the memory of World War I is still fresh. It is also raining outside. The war and the rainy weather both serve as clues to the moods of the two characters, whose marriage is going through a crisis.[3] The exposition introduces the characters and the relation between them. In the hotel room, George – the

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[1] William Wordsworth's (1770–1850) poem "I wandered lonely as a cloud" (1807/1975), though an example of a different genre, well illustrates this element: the word "dance" appears in all four stanzas and emphasizes the harmony of the narrator's experience with the universe.

[2] The same pattern is present in the short story "The end of something" (1925/1953), which represents the break-up between a couple of young Americans living in mid-West. Hemingway's other stories are different. For example, "Snows of Kilimanjaro" (1936/1953) and "The Short Happy Life of Francis Macomber" (1936/1953) have much more complex structures that involve many flashbacks.

[3] The war forms the background for an unhappy relationship also in the short story "Mr. and Mrs. Elliot" (1925/1053).

husband – is engrossed in reading. He neither takes interest in his wife nor in what is going on outside. The nameless wife is bored – she is looking out of the window into the garden in the rain. No flashbacks provide information about the reasons for the situation. The complication begins when the wife notices a little cat trying to find shelter from the rain under one of the tables. The plot takes a dramatic turn when she says that wants to have it very much. She decides to go downstairs and bring the kitty into the room. Though the husband offers to help her, she wants to go alone. On her way, she is greeted by the Italian hotel-keeper, whom she likes. The narrative reaches the climax when the wife goes out of the building and a maid with an umbrella goes out to protect her from the rain – she explains that the hotel-keeper has sent her. The wife does not find the cat and goes back upstairs sad and disappointed. The conflict is resolved when the wife asks her husband if she should grow her hair out, says that she wants a bun at the back of her neck, and a cat to stroke, a table with her own silver, and some new clothes. He is not interested and tells her to shut up and read a book instead. Just then the maid knocks on the door – at the request of the hotel-keeper she has brought another cat for the wife (Cat in the rain. Summary, 2018).

## 4. Prototypical emotions

Hogan (2003) argues that there are prototypical narrative patterns underlying stories that represent prototypical emotions. Basing on the cognitive concept of a 'frame' understood as "a structured mental representation of a conceptual category" (Kövecses, 2006, p. 64), he analyses narratives of emotions as telic structures that involve agents, their goals, and causal sequences of events.

Happiness is a prototypical emotion. One of its forms involves romantic love, which leads to the union of two persons that culminates in their happiness (Kövecses, 2006, pp. 88–89). Its prototypical scenario or frame is as follows:

sexual attraction → romantic love → romantic union (marriage) →
enduring happiness (Kövecses, 2006, p. 91; Hogan, 2011, pp. 90–91)

Love understood as a union thus presupposes physical closeness and spending a lot of time together (Kövecses, 1986, pp. 64–65). People in a romantic relationship not only want to be together, but the unity also involves "perfect harmony, idyllic state" (Kövecses, 1986, p. 63). two obvious symptoms of disintegration of the union are the increase of spatial distance and the decrease of communication between the lovers.

Hemingway's narrative sets out at the stage when the romantic union between the American couple begins to crumble. First, though the husband and the wife are staying in one place, they are physically separated. The increase of the spatial distance between the spouses means that they no longer function as a unit. The husband is also immersed in reading and inward-looking; the wife takes interest in the outside world looking out onto the square and wanting to have the little kitty when she notices it. They live in two different worlds between which there is little communication.

At the same time, attraction between the American wife and the Italian hotel-keeper gradually develops:

> The wife went downstairs and the hotel owner stood up and bowed to her as she passed the office. … He was an old man and very tall. … He stood behind his desk in the far end of the dim room. The wife liked him. She liked the deadly serious way he received any complaints. She liked his dignity. She liked the way he wanted to serve her. She liked the way he felt about being a hotel-keeper. She liked his old, heavy face and big hands. (Hemingway, 1925/1953, p. 168)

A form of beauty, which goes beyond the physical aspects and involves such characteristics as personality and way of being, has effect on the wife. The liking is still passive – she experiences it, but she is not affected to the point of losing control[4] (Kövecses, 1986, pp. 68–70).

The wife's being attracted to the hotel-keeper is an early stage of the scenario of a prototypical romantic relationship. First, he maintains eye contact with her in the part of the corridor where the office is. Secondly, as she is about to go out into the rain to find the cat, the keeper sends a maid with an umbrella to protect her from the rain. He thus wants to take care of the wife. When the wife returns to her room disappointed, he bows to her again:

> Something felt very small and tight inside the girl. The padrone made her feel very small and at the same time really important. She had a momentary feeling of being of supreme importance. (Hemingway, 1925/1953, p. 169)

Finally, having noticed that the wife did not find the kitty, he sends a different cat to please her:

> In the doorway stood the maid. She held a big tortoise-shell cat pressed tight against her and swung down against her body. "Excuse me," she said, "the padrone asked me to bring this for the Signora." (Hemingway, 1925/1953, p. 170)

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[4] A stronger emotion, including sexual desire, may be mediated by liking (Kövecses, 1986, p. 70).

The gift is a token of care and affection of the hotel-keeper for the wife. Four major elements of a prototypical romantic relationship – liking on the side of the wife and eye contact, care, and a gift on the side of the manager – are thus present.

## 5. Narratives and emotions: Metaphors and metonymies

LOVE IS A UNITY OF COMPLEMENTARY PARTS, motivated by the experience of physical closeness, is a major metaphor structuring the concept of romantic union. Some linguistic examples of its use are: We were *made for each other*; We *are one*; Theirs is *a perfect match*; She has an *attachment* to him (Kövecses, 1986, pp. 62–63). In narrative structures, the source domain of the metaphor takes the form of elements of the setting and the characters' actions. In Hemingway's short story, the American spouses are gradually drifting apart emotionally, so the spatial distance between them increases: the husband lies on the bed; the wife stands at the window. As affection between the wife and the Italian hotel-keeper gradually develops, the distance between them shrinks. At first, he is at the far end of the room, but on two occasions he attempts to get closer to her: first, he asks the maid to bring the umbrella for the wife who goes out into the rain; second, he sends a different, much bigger cat, directly to the room that she and her husband occupy.

EMOTIONS ARE PHYSICAL FORCES is another metaphor in the structure to the narrative. Rooted in Talmy's (1988) force dynamics model of language based on the concepts of forces and barriers (Sweetser, 1999, pp. 51–54), the metaphor is motivated by the primary experience of "achieving results by exerting forces on physical objects to move or change them" (Lakoff & Johnson, 1999, p. 53). It underlies the following expressions: That was a terrible *blow*; Her whole life *revolves around* him; I am *attracted to* her; I was *magnetically drawn to* her. They represent various emotions as physical, gravitational, or magnetic forces respectively (Kövecses, 2006, p. 218). The metaphor is present in actions undertaken by the characters. The American wife, feeing bored and lacking affection, is *drawn to* the kitty sitting under the table. She finds the hotel-keeper *attractive*. He also seems to be *attracted to* her because he provides the umbrella and later sends another cat for her to relieve the disappointment when she does not find the kitty. Though no words in the text reflect the metaphor, its non-linguistic realization is in the events that make a sub-part of the narrative.

The cat has a pivotal function in the narrative. It represents the emotional state of the wife, who feels lonely with her husband and seeks some affection; at the end of the story, it is an expression of the hotel-keeper's care for her. The

animal – be it the kitty or the big cat that the hotel-keeper sends – functions as the vehicle of the metonymy THE OBJECT FOR THE EMOTION. As the narrative is linear, the selection of the cat as the focus of the story, as well as its simultaneous use as the meeting point of the emotions of boredom and affection produces what Victor Shklovsky (1917/1965) called the artistic effect of "defamiliarization" – the conventional emotions and conflicts are represented in a novel way.

Proper names also play a role in the narrative. In contrast to common appellatives, "their semantic function lies in the naming and identifying of individuals" (Jäkel, 1999, p. 211). Unlike her husband George, the wife has no name. Its lack has a twofold function: first, she acts as a "slot" that can be filled with meaning and so represents any other woman in a similar situation; secondly, and more importantly in the context, it implies that the wife remains in the background and is unimportant.[5] Hemingway's negated use of the common metonymy THE NAME FOR THE PERSON[6] thus represents the insignificant position of the wife.

Finally, the word that servers as a clue to the theme and meaning of the story is *cat*. Mentioned in its title, it also has the structuring function related to emotions. However, the word *she* appears more frequently than is justified by its function as an anaphoric pronoun referring to the wife. Its repeated occurrence indicates that also the American wife is the focal point of the story and that – because *she* has no name – *she* is insignificant.

## 6. Conclusions

Literary texts owe their artistic effect both to structure and contents. Combination of highly salient features on both these levels usually augments the effect. "Cat in the rain" employs all prototypical features of the structure of a short story to represent the prototypical romantic union. At the same time, like so many other Hemingway's stories, it is a compact narrative in realistic setting, written in simple, direct style with little descriptive detail (Anderson, 1994, p. 109; Levin, 1965, p. 107). That is why the condensed story is so convincing.

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[5] For a contrast, the characters of "Mr. and Mrs. Elliot" (1925/1953) have common names so that they can be regarded as prototypes of their category.

[6] The negated use of the metonymy should be understood as "no name = no person".

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# Multi Facet Rasch Analysis in tests of oral production

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**Abstract**

The difficulty in constructing tests of oral production lies with the rating schemes and assessment frameworks, their construction and validation and subsequently application. This paper advocates extensive use of numerical data and statistical procedures alongside qualitative and intuitive methodologies, where the common denominator lies in the fact that all of the empirical measures involved make use of some form of a performance model allowing to make predictions about the examinee behaviour in order to verify goodness of fit of the observable rating data.

**Key words:** testing, evaluation, validation, Multi Facet Rasch Analysis

## 1. Introduction

Weir (2005), in an attempt to look at language testing in an objective, empirical way, coined the term *evidence-based approach*. In a sense, this paper will follow a similar tenet of gathering hard evidence to make and substantiate claims about the merits of rating scales and the nature of oral examiner performance. While Weir's approach was based on evidence gathered at different stages of the process of test construction, administration and evaluation, and made use of an array of information collected at distinct points in test preparation and operation, the information only sometimes was of quantitative sort. In Weir's opinion relying on the evidence obtained at various stages of test construction, preparation, administration and analysis is crucial in determining the value of the test, its reliability, validity and effectiveness. Such evidence is also instrumental in performing the necessary adjustments to the procedure and operation; however, the evidence-based approach advocated by him sometimes relies on evidence that could be highly subjective and thus prone to errors of judgement.

There are several reasons why Weir's approach makes no consistent use of numerical data: firstly, because goodness of fit procedures require large scale

observations of performance; secondly, because constructs for such observations need to be defined as traits rather than competencies and skills; and thirdly, because unlike tests of writing or composition as well as tests of receptive skills, grammar or vocabulary, oral performance leaves no permanent record that can be re-examined at will. Finally, even if recordings of spoken production allowed researchers to take their leisure examining the data, it is rarely that oral performance is repeatedly evaluated by different examiners, thus producing a matrix that may be analysed with the statistical procedures that will be described later in this text.

The procedures presented on the subsequent pages of this paper may be treated as a set of guidelines for any exam construction and evaluation procedure. They involve a number of stages and require different procedures to be performed before a claim can be made that the rating scales; tasks and examiner behaviour have all been validated. The novelty of the approach assumed here lies in the fact that all of the procedures have been assembled together for the first time and constitute a convergence of three methodologies: intuitive, quantitative and qualitative, with the premise in mind that they all are limited with research shortcomings that can be reduced and perhaps even eliminated through the tri-partite arrangement assumed for this exposition.

## 2. Developing tests of oral expression

The process of constructing tests of oral expression, more commonly referred to as speaking tests, fits within a more general framework of test construction postulated as early as in the 40's of the previous century by Hughes (1946), later picked upon by various other practitioners (Rasch, 1960; Rasch 1980; Berk, 1984; Brennan, 1984; Cziko, 1984; Davies, 1977; Davies, 1990; Douglas & Selinker, 1985; Theunissen, 1987; Allen, Cummins, Mougeon, & Swain 1983; Alderson & Buck, 1993) to finally gain recognition in several texts after the seminal publication by Alderson et al. in 1995 (cf.: Luoma, 2004; Bond & Fox, 2007; Fox, Wesche & Bayliss, 2007; Fulcher & Davidson, 2007; Douglas, 2009; Taylor, 2011; Fulcher, 2013; Fulcher, 2014; Leong, Bartram & Iliescu, 2016).

In essence, this arrangement suggests that a number of distinct stages lead to the administration of the test, while information obtained at each of the stages, together with the information acquired from the administration itself provide the test constructor with valuable insights into the mechanics and functioning of the test allowing the administrators at the same time to implement any necessary changes, adjustments and modifications aiming at improving the procedure. This is very much consistent with Weir's evidence-based approach (2005). It is interesting to

note, however, that this idea was conceived much earlier, and coherently put forth by Alderson et al. (1995). Both Alderson's et al. (1995) and Weir's (2005) ideas, despite implicit notions to the contrary, explicitly suggest that this is a linear, one time process.

Luoma (2004, p. 4) makes a more convincing argument presenting test construction and development as an ongoing, never-ending and continual process, which she does by presenting it graphically in the form of a circle, which presents stages of test development. This circular exemplification is more convincing in the sense that it captures the repeated nature of efforts involved, but at the same time suggests that with subsequent administrations each of the stages is not merely overhauled but altogether re-invented, which, it is conceivable to assume, nearly never happens, if only for logistical reasons.

Alderson and Buck (1993) claim that a total overhaul usually results from a re-formulation of constructs underlying the testing framework, or technological advances allowing to analyse test performance and stake claims concerning constructs with greater accuracy, and estimate of a life cycle of a commercial test battery such as that of ESOL to be approximately ten years (Docherty & Corkill 2015), whereupon the test is re-evaluated, revamped and replaced by another, sometimes substantially different instance of operations.

Nonetheless, the stages that can be identified, though under different headings with various authors, come down to: i) the planning stage or the test specification stage where constructs are defined; ii) task development stage where, based on the constructs, tasks are written and moderated; iii) rating scale construction and verification; iv) training stage both for raters and administrators, and, finally, v) test evaluation and research stage. Once set in motion, the process continues till the test is decommissioned, usually being replaced by another test or examination (Luoma, 2004; Douglas, 2009; Taylor, 2011; Fulcher, 2013; Docherty & Corkill, 2015).

## 3. The planning and test specification stage

The planning and specification stage is crucial in a number of ways to the viability of the examination. The issues connected with the standarisation and verification pertaining to reliability and validity in connection with more general considerations in language testing, exam development and evaluation, construct development and operationalisation have been presented in numerous texts in the field (Luoma, 2004; Bond & Fox, 2007; Fox, Wesche & Bayliss, 2007; Fulcher & Davidson, 2007; Douglas, 2009; Krakowian, 2010, 2011; Taylor, 2011; Fulcher, 2013; Fulcher, 2014; Leong, Bartram & Iliescu, 2016).

A separate set of concerns is related to the design of the operationalisation of constructs and the design of constructs themselves, as rating scale analysis and the analyses of examiner performance can be accomplished under any set of circumstances, but binding conclusions can be drawn and problem areas can be identified and explained if constructs and their operationalisations are of a particular type (Taylor & Falvey, 2007). This is not so much a matter of the contents of the specifications as it is an issue of how constructs are formulated, as it has been claimed on numerous occasions by Fulcher and Davidson (2007), McNamara (2000), Harley, Allen, Cummins & Swain (1990).

In their collective opinions, constructs need to be defined as traits rather than competencies and skills, which is something that in turn reflects the intention to pursue such mode of design of ensuing rating scales that will be simple enough to adhere to, given the reservation already expressed earlier that any descriptor which is more elaborate than two clauses is largely disregarded as binding in assessment (Fulcher, 1994; Taylor & Falvey, 2007; Cambridge English: RN 2007 issue 30). Such design would need to be supported by an extensive, compound and robust framework drawing on the nature of latent traits. The idea that the complexity of human behaviour, including language behaviour, can be explained by a multitude of micro-traits which can later be reduced to a more general latent trait through trends analysis and correlational reduction is not new and has been advocated as early as Stevens (1946), Rasch (1960, 1980) Michell (1997), and pointed out more recently in educational applications and assessment by Embretson & Reise (2000) Kemp (2006) and Feary (2009).

A number of underlying latent traits have been identified in connection with second language oral proficiency in several prominent studies as far back as in the late 50's, early and mid 80's and early 90's of the previous century (Campbell & Fiske, 1959; Harley, 1987; Kavanagh, MacKinney & Wolins, 1971; Anderson, Bachman, Perkins & Cohen, 1991; Griffin, 1985; Adams, Griffin, & Martin 1987; Henning, 1992; Oltman & Stricker, 1990; Boldt, 1989). Confirmed accounts of analyses leading to the identification of a number of interrelated micro-traits in three main latent traits accounting for oral language ability and oral communication resulted in a tentative conclusion that oral production can be described and analysed in terms of: i) grammar trait understood in terms of range and accuracy of morphology, lexis and syntax; ii) discourse trait perceived as the abilities comprising the capacity to understand and produce coherent and cohesive text, including specific linguistic realisations of coherence; iii) sociolinguistic trait envisaged as the ability to produce and recognise language that is socially acceptable within a particular set of contexts, including the ability to execute a planning and strategic component that is in accordance with social conventions (Bailey, 1998; McNamara, 2000; Fulcher & Davidson, 2007; Fulcher, 2014; Leong, Bartram and Iliescu, 2016).

## 4. Task development stage and task moderation

The next logical step in the development of oral language tests, indeed in the development of any test and examination, is to determine the operationalisation of the constructs envisaged by traits, by designing the set of procedures and operations through which they will manifest themselves in the form which allows rating (Milanovic, Saville, Pollitt & Cook 1996; Skehan, 1998; Bygate, Skehan & Swain 2001; Hughes, 2002; Galaczi & Ffrench, 2007). This usually involves outlining the general procedure of the oral examination or interview, drafting tasks and moderating in order to determine construct validity of the individual tasks and the whole procedure. Galaczi & Ffrench (2007) point out that it is common practice to seek out and pursue existing rating scales to determine their suitability for measuring the postulated constructs, as designing tasks with a rating scale in mind is easier and more expedient than designing tasks from scratch and building rating scales to reflect construct related operations that are supposed to be obligatory in the process of task completion.

Nonetheless, it is conceivable to imagine that in some educational and evaluative contexts, no suitable scales exist that could be used as a starting point for adapting and developing performance descriptors and ensuing appropriate tasks. Such situations require foresight and perhaps a certain amount of experience, as a badly designed task, for instance in terms of scope and range (Upshur & Turner, 1995) may be so undemanding for the test taker that it may result in underscoring of ability, as the examinees are not offered the opportunity to exhibit their full spectrum of language potential. Another danger lies in the fact that envisaging such undemanding tasks as sufficient to elicit the desired types of language behaviour leads to under-representing constructs (Skehan, 1998; Bygate, 1987; O'Loughlin, 2001). Weir & Milanovic (2003), Hawkey (2009) and Martyniuk (2010) all additionally point out the necessity for diversity in exams of oral proficiency, which in their opinion is the only guarantee of representativeness and consequently also construct validity.

In his analysis of UCLES now ESOL, Hawkey (2009) identifies how the constructs recognized in the design stage for the spoken competence result in the composition of the oral interview tasks and how they are reflected in the rating scales. Hawkey (2009) expounds how the FCE speaking tasks are designed in order to account for postulated constructs such as coherence and cohesion in a range of contexts conceivable for a SL/FL learner of English. In an interview consisting of four parts, the interviewer assumes two distinct roles in interacting with the examinee, that of an organiser of events and participant of discussion (Hawkey, 2009). Despite being heavily scripted on the part of the interviewer,

the interaction is designed to look and feel spontaneous and natural and prompts the examinee to use appropriate register for each type of interaction, though both of them preclude becoming too friendly with the interviewer. In addition to that, the informal register is required when the examinee interacts with a peer, and Hawkey (2009) claims that efforts are made to pair FCE candidates according to age based on the available applicant information, though the present author's experience as an ESOL examiner point to the contrary in numerous observations. The candidate's language production involves providing factual information on request, presenting an opinion, negotiating a point of view, explicating, describing and narrating content (Suto, Greatorex & Nadas 2009; Hawkey, 2009).

The variety of contexts in which the language is produced is designed to reflect differences in how coherence and cohesion are achieved in different types of discourse and is meant to be an adequate reflection of the underlying construct. Evidence, however, exists (Suto, Greatorex & Nadas, 2009; Taylor & Falvey, 2007; Laming, 2004; Weir & Milanovic, 2003) that despite the efforts to design tasks to be instrumental in eliciting construct postulated behaviours, with reference to cohesion and coherence, rating scales seem to be vague enough to encourage raters to formulate judgements reflecting cohesion rather than coherence or both. This clearly points to the need for careful, thorough and informed rating scale construction and verification, using a variety of sources of insight.

## 5. Rating scale construction and verification

Rating scale construction involves a number of operations that need to be performed in order to ensure that the scales constitute a fair reflection of underlying constructs, provide a convincing translation of the operations involved in successful task realisation into postulated behaviours and grant the examiner ease in making decisions as to which of the descriptors of performance is applicable when looking at individual aspects of performance (Milanovic, Saville, Pollitt & Cook, 1996; Galaczi & Ffrench 2007; Fulcher & Davidson, 2007; Douglas, 2009; Taylor, 2011). Once the constructs have undergone operationalisation through task design, descriptors are formulated and *an priori* validation is performed. This involves intuitive, qualitative and quantitative methods of analysis applied at different stages of rating scale construction. The *an priori* validation is followed by a small scale pilot involving actual examinee performance on tasks, to finally conclude in *a posteriori* in-depth analyses of rater performance in a regular administration (Milanovic, Saville, Pollitt & Cook, 1996; Galaczi & Ffrench, 2007; Taylor 2000; Weir & Milanovic, 2003; Fulcher, 1996; Hawkey, 2004; Laming, 2004).

While *an priori* validation and a dry, test run belong to the stage of rating scale construction and validation, a full scale validation is part of the exam performance investigation and provides a much more thorough and exhaustive picture of the process owing to the fact that much more comprehensive data is available offering a much wider-range account of the examinee behaviour and examiner rating scale interactions. Naturally, since the data obtained in the pilot is smaller and less exhaustive it requires other sources of insight to engender confidence of the test constructors in the performance of scales. Nonetheless, empirical validation of scales prior to the scales being used in an actual, live examination has since the 90's of the previous century become a staple practice in numerous educational and examination contexts. Laming (2004) and Milanovic, Saville, Pollitt & Cook (1996) claim that on one hand this has been so owing to availability of expertise concerning the application Multi Facet Rasch Analysis (MFRA), but increasingly so owing to the MFRA procedures becoming requisite and obligatory in various testing and assessment communities, and becoming more and more the norm in appraising the viability and validity of rating scales.

## 6. The Principles of Rash Analysis and Testing Relevance

The class of models referred to on subsequent pages is named after Georg Rasch, a Danish mathematician and statistician who postulated them in the late 1950's and early 1960's (Rasch 1960, 1980), and which were later elaborated on by Wright and Stone (1979) and Wright & Masters (1982). It was Wright & Stone and the MESA Psychometric Laboratory in Chicago who publicised Rasch's theories and who created computer models for their implementation in the form of BIGSTEPS, a computer program for two facet Rasch analysis and FACETS, a Multi Facet Rasch Analysis program. The sections below outline the major tenets of the theory.

## 7. The Concept of Latent Traits (LT's)

Before Rasch analysis, extended Rasch analysis models or the Multi Facet Rasch Analysis can be delineated, a central concept necessary for the understanding of the Rasch rationale needs to be introduced. The term *latent trait* in psychometrics is derived from psychology, and it refers to a psychological dimension necessary for the description of an individual and is assumed to underlie and explain observed behaviour of that individual (Bond & Fox, 2007; Salkind, 2007; Kaplan

& Saccuzzo, 2009). In relation to language testing, latent traits are those relatively stable characteristics, attributes or capacities which account for the consistencies in the behaviour of the individual or a group of individuals.

Latent traits have been postulated both to be fixed, unchanging and stable entities (Anastasi 1988), but also as phenomena characterised by change, adaptation and augmentation. In short, though being stable, at the same time they are inherently dynamic and interactive (Bond & Fox, 2007). Lord & Novick (1968) and Kaplan & Saccuzzo (2009), however, logically point out that the actual account of the nature of the latent trait has no implications for the mathematical models of mental performance; it matters, though, at the level where assumptions are made about the content of the language test.

## 8. The Notion of the Item Characteristic Curve (ICC)

An essential feature of the Rasch model is that of a relationship between the observable performance of individuals in an assessment situation and the unobservable underlining characteristics or abilities responsible for that performance (Bond & Fox, 2007). That relationship is described by the *Response Function* or the *Item Characteristic Curve* (ICC), which is a curve relating the probability of a desired behaviour of a person in a task or a set of tasks or items to such parameters as ability and difficulty. Various ways of formulating this curve have been proposed by numerous existing Rasch models, all of which have made the assumption that the rate of success depends on the information about the person's ability and the difficulty of the task, with some models incorporating additional variables. When the probability of a correct answer is expressed as a function of ability, such an expression is referred to as the Test Characteristic Curve (TCC) or when tasks are composed of items as the case is with pen and paper test Item Characteristic Curve in short ICC (Bond & Fox, 2007).

A distinction is often made between theoretical ICCs and empirical ones, i.e.: ones obtained from a set of response data (Bond & Fox, 2007) Historically speaking ICCs have often been formulated by observing empirical data, as a starting point for the development of response models (Bond & Fox, 2007; Salkind, 2007; Kaplan & Saccuzzo, 2009).

# 9. The Measurement Models

A family of possible curves exists for such a relationship and accounts of various types of mathematical models are given by e.g. Hersen (2003), Bond & Fox (2007) and Salkind (2007). The major difference between those various models lies in how the responses are evaluated and scored, and how that scoring reflects the relationship between the dimensionality of the response data and the number of traits assumed to underlie that data. For clarity of the argument and for practical reasons connected with the interpretation of data, the following considerations account for a single underlying trait and assume that only two factors will come into play raters and samples. Such models representing task-person or rater-sample interaction are referred to as dichotomous or two facet uni-dimensional probabilistic response models, which rely on the exponential and logarithmic (logistic) functions, and therefore are also known as logistic response models (Lord & Novick, 1968; Bond & Fox, 2007; Salkind, 2007; Kaplan & Saccuzzo, 2009). And while principally, this logic is applied to investigating person and item interaction in paper and pen based tests, more and more often the principles of Rasch Response Models are applied in attempts to assure quality and control the process of evaluating subjectively rated tests. Such procedures look predominantly at the information relating to the goodness of fit of the observed performance data to the data postulated by the model.

Numerous programs and procedures exist that are capable of performing such analyses (cf. Krakowian, 2010, 2011). BIGSTEPS and FACETS, are by far the best known, and what is more, now feely available in the original DOS based versions, following the development of newer more user-friendly, and commercially available versions. They both provide the goodness of fit information as unweighted, or infit, and information weighted, or outfit, indices which provide some measures for dealing with aberrant rater behaviour patterns. While the *t-fit* goodness of fit index is indicative of how well or how poorly the rating pattern adheres to the model, outfit and infit may be somewhat instrumental in detecting patterns of ratings that are overly lenient or overly strict or severe. Neither of them separately or together, however, can be exhaustively indicative of raters rating carelessly without paying attention to the true merit of the samples (Wright & Masters, 1982; Bond & Fox, 2007; Salkind, 2007; Kaplan & Saccuzzo, 2009). A freeware program for Multi Facet Rasch Analysis, RarterGrinder, is available at the Institute of English Studies at Łódź University, and its operations are somewhat documented in two studies by Krakowian (2011). The main focus of the program, apart from providing the usual indices of goodness of fit is to explicitly identify the aberrant patterns of behaviour in raters and to indicate, leniency and severity as well as careless ratings.

From the point of view of reliability of the rating in a test of speaking, raters who are too lenient, too severe, just as the ones who play it safe and tend to assign the same or largely similar grades for performance of different quality, or who assign grades that bear little or no relation to the quality of the performance, should be identified and dealt with at the stage of rater training and verification, before the live roll out of the test (Bond & Fox, 2007; Salkind 2007, Kaplan & Saccuzzo, 2009). The stage of rater training is perhaps the only time in test construction and administration where all or most of the raters have to deal with the same samples of oral production and when their performance can be collectively evaluated for the purpose of providing feedback and retraining.

The departure from a model of performance in Multi Facet Rasch Analysis (MFRA) in the case of both BIGSTEPS and FACETS is measured using a goodness of fit test, essentially a test that is indicative of how well a set of empirical data, such as rater performance data in a test of oral production, fits the postulated model (Bond & Fox, 2007). There are numerous tests of fit available, but both programs use a residual based goodness of fit statistic estimated in an iterative procedure called UCON (Wright and Stone 1979). This procedure, however, is capable of accounting for undesired rater behaviour only on the premise that since some samples are rated correctly by a smaller number of raters they should be considered more difficult. The degree of departure from the model is estimated based on the implausibility of the response and not on the actual difference between the rater rating and the model. In practical terms, this means that in analysing response patters a number of different indices need to be taken into consideration at the same time, and the observations sometimes may be considered as guesswork rather than binding conclusions, especially so in situations in which numerous raters exhibit different rating patterns rather than consistently underrate or overate certain samples or groups of samples, as can be seen below in Figure 1:

| Obsvd Score | Obsvd Count | Obsvd Average | Fair-Z Avrage | Measure | Model S.E. | Infit MnSq | ZStd | Outfit MnSq | ZStd | PtBis | N. Rater |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 17 | 3.6 | 3.41 | 1.36 | .39 | .09 | 7 | 2.0 | 5 | .00 | 1 |
| 55 | 17 | 3.2 | 3.35 | .79 | .49 | 0.3 | -2 | 0.3 | -2 | .98 | 2 |
| 5 | 17 | 3.3 | 3.43 | -1.36 | .49 | 4.5 | -1 | 8.4 | -1 | .98 | 3 |
| 25 | 16 | 1.6 | 1.21 | 0.71 | .70 | 1.3 | 4 | .6 | 4 | .11 | 4 |
| 56 | 17 | 3.3 | 3.43 | -.25 | .49 | 1.7 | -2 | 2.5 | -1 | .98 | 5 |
| 63 | 18 | 3.5 | 3.51 | 1.34 | .46 | 1.9 | 8 | 1.6 | 6 | .15 | 6 |
| 58 | 17 | 3.4 | 3.61 | 1.35 | .49 | 1.7 | -3 | 1.2 | -2 | .99 | 7 |
| 93 | 17 | 3.5 | 5.89 | 1.35 | .66 | .3 | 4 | 1.0 | 9 | .11 | 8 |
| Obsvd Score | Obsvd Count | Obsvd Average | Fair-Z Avrage | Measure | Model S.E. | Infit MnSq | ZStd | Outfit MnSq | ZStd | PtBis | N. Rater |

Fig. 1. FACETS printout listing infit and outfit statistics for raters (developer data)

A different approach is assumed in the case of RaterGrinder, where a dedicated set of indices is used in the analysis of rater behaviour. Apart from the *t-fit* goodness of fit statistic and rater measure, the program provides a summary severity/leniency measure, additionally broken down into separate severity and leniency indices. All three measures are logit-based, which makes them suitable for relating to the rater measure and fit indices, as they are represented in the same scale and change with the same magnitude order.

| No | Measure | MN.SQ | t-fit stat. | Overall S/L | Leniency | Severity | No |
|----|---------|-------|-------------|-------------|----------|----------|----|
| 1 | 1.375633 | 0.7142857 | -0.1951748 | -2.197225 | 0 | 2.197225 | 1 |
| 2 | 0.7611303 | 1.785714 | 0.4415075 | -1.386294 | 0 | 1.098612 | 2 |
| 3 | -1.375633 | 3.928571 | 1.600518 | -2.079442 | 0 | 2.079442 | 3 |
| 4 | -0.7611303 | 3.214286 | 1.261665 | 1.94591 | 1.94591 | 0 | 4 |
| 5 | -0.2450292 | 2.5 | 0.8771017 | -2.484907 | 1.609438 | 1.94591 | 5 |
| 6 | 1.375633 | 3.571429 | 1.623343 | -2.197225 | 1.386294 | 1.609438 | 6 |
| 7 | 1.37563 | 3.571443 | 1.643233 | -1.791759 | 0 | 1.609438 | 7 |
| 8 | 1.375633 | 1.428571 | 0.2130144 | -1.098612 | 0 | 1.098612 | 8 |

Fig. 2. RaterGrinder indices of severity and leniency (developer data)

Even superficial analysis of tables in Figures 1 and 2 shows that FACETS provides less information on patterns of rater behaviour. While raters 3, 5, 6 and 7 can be identified as suspicious, until respective variances in their response patters are analysed (Bond and Fox 2007) or patterns themselves are investigated, it is difficult to arrive at binding conclusions. RG, on the other hand, helps to determine that raters 1, 3 and 7 are overly severe, rater 4 is overly lenient, raters 5 and 6 are indiscriminate in their ratings. In the process of rating scale construction and verification, as well as at later stages in the process of rater training and exam review and rater performance review, information of this kind offers invaluable insights into the mechanics of the examination.

It is now considered more or less a norm in educational assessment and the testing industry to perform empirical validation in relatively extended trials to confirm the soundness of the descriptors, especially in procedures of mapping the descriptors under development with descriptors of already established status, reputation and recognition in order to concurrently validate the scales and provide a point of reference to potential users of the exam scores (Taylor & Falvey, 2007). This is becoming especially common in connection with CEF rather than with any other examination (Martyniuk, 2010). While substantial and oftentimes satisfactory validation of the scales can be performed prior to a live administration, a full quantitative analysis of the scale and rater performance can only be performed *post factum*, once the data has been collected from the actual administration.

## 10. Final notes

This paper looked at ideas in relation with validating oral performance assessment frameworks and procedures involved in investigating marker performance and detecting marker bias. The approach assumed here advocates extensive use of numerical data and statistical procedures alongside qualitative and intuitive methodologies, where the common denominator lies in the fact that all of the empirical measures involved make use of some form of a performance model allowing to make predictions about the directly observable behaviour in order to verify goodness of fit of the observable data with the postulated model of performance, while the intuitive and qualitative procedures prepare ground for analysis of hard facts.

In the course of this paper the notion of Multi Facet Rasch Analysis (MFRA) was introduced to show how the goodness of fit indices may be applied to identify unusual rater behaviour in tests of oral expression. However, in order to arrive at a protocol to ensure satisfactory control of the process of implementation and maintenance in the assessment of oral expression, the paper postulated convergence of three methodologies: intuitive, quantitative and qualitative, with the premise in mind that they all are limited with design shortcomings that can be reduced and eliminated through such a tri-partite arrangement.

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# An overview of ESP and EAP in language pedagogy

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**Abstract**

The English language is widely used in educational institutes around the world, and especially in Higher Education. This has led to the development of English for Academic Purposes (EAP), a new branch within the field of English for Specific Purposes (ESP). This chapter is aimed at providing a conceptual framework for ESP and EAP. To this end, the chapter will focus on the diachronic development of ESP, the differences between ESP, EAP and EOP (English for Occupational Purposes), and the distinction of EAP in EGAP (English for General Academic Purposes) and ESAP (English for Specific Academic Purposes). Relevant key concepts in English language pedagogy, such as curriculum and syllabus design, as well as current issues in the field of EAP research, are also examined.

**Key words:** English for Specific Purposes (ESP), English for Academic Purposes (EAP), curriculum, syllabus, course design

## 1. Introduction

This chapter aims to shed light on the typology of English for Specific Purposes (ESP) and English for Academic Purposes (EAP) within English language pedagogy. The above two concepts are now critical in English language research and teaching, and especially in course design. Given the prominence of specificity in terms of learner needs, content and methodology in ESP (as will be discussed below), it is essential to gain an understanding of what constitutes the curriculum and the syllabus and how they are pertinent to ESP/EAP. The chapter will seek to provide a concise overview of the theoretical background and development of ESP and EAP. To that end, key concepts will be discussed; particularly, the underpinning principles of Curriculum Development, Course Design, Needs Analysis and English for Specific Purposes.

## 2. Curriculum

What follows is an attempt to offer an overview of Curriculum development in language teaching or Curriculum studies, which is closely related to Syllabus design. The relevant literature abounds with definitions of the above two concepts (Brown, 1995; Crombie, 1988; Clark, 1987; Graves, 1996; Lee, 1980; Nunan, 1988; White, 1988); however, the present chapter will only provide a limited number of definitions of Curriculum and Syllabus for clarification purposes.

Historically, curriculum development can be said to have begun in the 1960s, while issues related to syllabus design came to light earlier along with changes in teaching methodology (Richards, 2001). According to Thornton (2014), "a curriculum is a program consisting of a series of learning activities intended to realise some set of educational objectives. The mission of a school or other educational agency is understood to be the delivery of a curriculum to some group of students or other learners". Richards (2001) specifies that the main aim of curriculum development is threefold: to establish the set of knowledge, skills and principles that learners are taught in schools, to identify the experiences that will lead to achieving the learning goals, as well as to determine other aspects such as measurement and evaluation of teaching and learning. Thus, the curriculum is designed to delineate the learning aims and objectives, as well as the ways the above can be achieved, in a given educational setting, and as such it is of highly practical value.

In addition, it is argued (Apple, 1990) that the curriculum also has social, economic and ideological dimensions and does not stand isolated in an educational setting. Therefore, although the curriculum seems to serve only educational purposes it is not limited to an educational setting. Instead, it can be affected by the context in which it has been created and may be intended to influence aspects of life other than education. In line with Apple's argument, several scholars (Dewey, 1938; Sambell & McDowell, 1998; Semper & Blasco, 2018) have claimed that in addition to the explicit curriculum, which is usually known to students and teachers, there is also the hidden curriculum, or in more simple terms that "schools teach more than they claim to teach" (Vallance, 1974, p. 5). In the definition Thornton (2014) provides, he maintains that the "hidden curriculum is implemented via routines and attitudes instilled through students' experiences with the explicit curriculum and its milieu; these experiences may be consonant or dissonant with the explicit curriculum". Thornton adds that the hidden curriculum can be more influential than the explicit one, and therefore failing to recognise and acknowledge it can impair one's understanding of the real nature of any given curriculum. Research also acknowledges the importance of the hidden curriculum

in Higher Education (Margolis, 2001). Endorsing the above, Semper and Blasco (2018) propose that teachers in Higher Education should pay attention to the hidden curriculum, and eventually eliminate it by viewing their teacher roles as a more personal issue.

## 3. Syllabus

Despite the link between the curriculum and the syllabus, or even the confusion often accompanying them, a distinctive line can be drawn between the two. The former is related to aims and objectives, methodology and materials, whereas the latter can be defined as "the way in which that content is organized and broken down into a set of teachable and learnable units, and will include consideration of pacing, sequencing and grading of items, methods of presentation and practice" (McDonough, Shaw & Masuhara, 2013), or as White (1988, p. 4) puts it in his seminal work *the ELT Curriculum* "syllabus refers to the content or subject matter of an individual subject whereas curriculum refers to the totality of content to be taught and aims to be realised with one school or education system". Finally, it has also been suggested that the syllabus is a declaration of the teacher's beliefs regarding teaching, learning and language (Hyland, 2006); thus, it can also constitute the means through which teachers can make their methodology and approach known to the learners.

As far as classification is concerned, White (1988) discusses three types of curriculum:

A: The Rational Planning model; starting with a clear specification of aims and objectives and moving on to content, learning experiences and evaluation

B: The Process approach to curriculum design; whereby teachers start with the context, then define the learning situation and the aims and finally implement evaluation

C: The situational model; based on analysis of cultural factors and starting with an analysis of the educational setting itself.

A distinction is also drawn between the following two types of syllabus; a) Type A, which presupposes emphasis on the subject, assessment through achievement, and objectives defined in advance by the teacher and b) Type B, requiring emphasis on the process, negotiation between teachers and students and commonly defined content and objectives (White, 1988).

A further classification of approaches to syllabus design is provided by Krahnke (1987). He discusses six types of language teaching syllabus, namely

the *Structural, Notional/ Functional*, *Situational, Skills-based, Task-based*, and *Content-based* syllabi, putting them on a continuum, whereby the first one places more emphasis on  language form, while the last one on language content. In reviewing relevant literature (Nunan, 1993; Wilkins, 1976; Widdowson, 1990), two more approaches to syllabus design emerge, namely the *synthetic* and the *analytic* syllabus. The former calls for a systematic step-by-step instruction, where the language structures are taught separately and in a linear and gradual fashion, while the latter is rather more holistic and views linguistic competence as a means to perform communicative tasks. With regard to EAP, Bruce (2005) proposes a *cognitive genre* approach to syllabus design, arguing that it is optimal for a General EAP course. Finally, in *English for Specific Purposes: A learning-Centered Approach* Hutchinson and Waters (1987) argue not only for the importance of a syllabus, but also for the existence of several stages to it: the evaluation, organizational, materials, teacher, classroom, and learner syllabus.

## 4. ESP and EAP

### 4.1. ESP

English for Specific Purposes (ESP), as a branch of English Language Teaching, emerged in the 1960s and has since given rise to extensive research and definitions. The roots of ESP, though, can be traced back to the aftermath of the Second World War. In fact, Hutchinson and Waters (1987) have suggested three reasons that gave rise to the ESP phenomenon. First of all, vast scientific and technological advances created a globalised world and, thus, the need for an international language. That role was assumed by English, mainly for reasons related to power and this led to the need to learn English for specific purposes, such as working in trade. Secondly, the aim of Linguistics changed from describing the language to analysing the characteristics of English used in certain fields of work or study. And, finally, advances in the field of Educational Psychology shifted the focus from the teacher to the learner, thereby creating the need for courses that would suit the learners' needs and increase their motivation.

The above gave rise to an ESP movement that is not confined to English speaking countries. ESP courses are delivered in places outside the *inner circle countries* (Kachru, 1985) where English is the first language. In fact, there are now ESP associations, journals and numerous publications worldwide but also seemingly a lingering question as to what exactly constitutes ESP and how it can

be implemented in the classroom. Finally, it is noteworthy that ESP teachers seem to often utilise research, perhaps more frequently than General EFL practitioners, since in order to cater for specific learner needs, they are often required to act as course designers, too.

To return to the previous question of what constitutes ESP, the following definitions can be examined. Paltridge and Starfield (2013) have defined ESP as "the teaching and learning of English as a second or foreign language where the goal of the learners is to use English in a particular domain". Johnson and Johnson (1998, p. 105) have described it as a "broad and diverse field of English language teaching" that refers to "language programmes designed for groups or individuals who are learning with an identifiable purpose and clearly specified needs", while the ESP student has been described as a learner studying English "in order to carry out a particular role, such as that of foreign student in an English-medium university, flight attendant, mechanic, or doctor" (Richards, 2001, p. 28). Hutchinson and Waters (1987, p. 19), on the other hand, have concluded that ESP should not be deemed a "language product but an approach to language teaching which is directed by specific and apparent reasons for learning". Given the number of definitions that have been offered (Hutchinson and Waters, 1987; Dudley-Evans and St John, 1998; Strevens, 1988; Swales, 1990), it is probably safe to draw the conclusion that defining ESP is a rather challenging task. However, it is worth noting the similarities that permeate most definitions: ESP is designed to meet specific learner needs in particular situations. More specifically, a number of characteristics of ESP, falling in two categories, have been identified in Dudley-Evans and St Johns's work, drawing on Streven's (1988) list of characteristics:

Absolute characteristics of ESP
- It is designed to meet specific learner needs
- It uses relevant methodology and tasks depending on the discipline; ESP methodology is centered on the language, skills, discourse and genres appropriate to these activities.

Variable characteristics of ESP
- It may or not be related to or designed for specific subject fields
- It may use a different methodology from that of General English
- It is probably designed for adult learners, either at HE or in a professional setting
- It is usually designed for intermediate or advanced students.

(Dudley-Evans and St John, 1998).

## 4.2. ESP branches

Despite the shared characteristics of ESP courses, ESP can be divided in two categories: English for Occupational Purposes (EOP) and English for Academic Purposes (EAP) (Woodrow, 2018), depending on the learners' needs and specificity of content. The following figure illustrates EOP and its subdivisions.
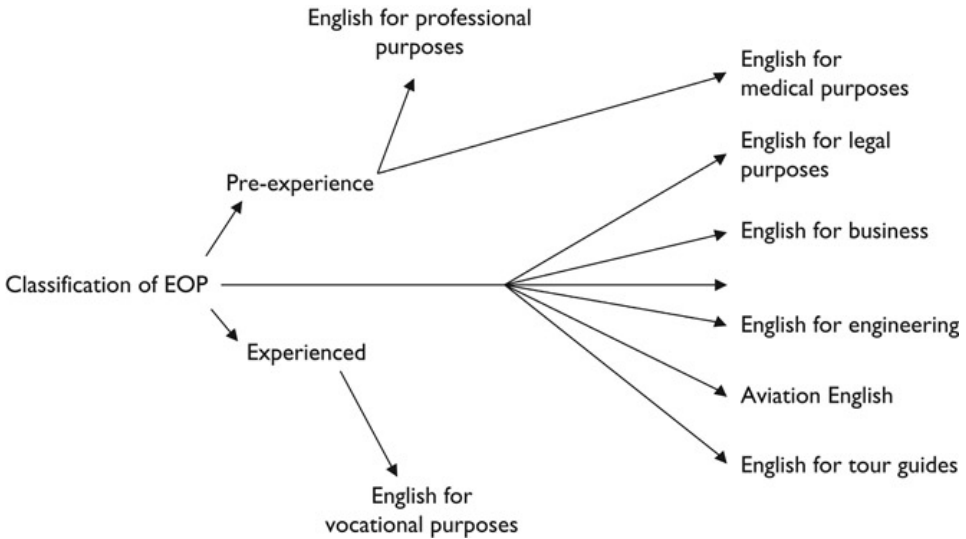


Fig. 1. Classification of EOP (Woodrow, 2018)

The second category of ESP, namely EAP, has been described as the teaching of English with a view to enabling learners to pursue studies or research in English (Flowerdew and Peacock, 2001a), while Hyland and Hamp-Lyons (2002) have added the element of culture, arguing that in addition to literacy skills, EAP courses should teach students the communication skills that are required in various academic and cultural environments.

EAP can in turn be divided into a number of branches. An EAP course may focus on English for General Academic Purposes (EGAP) or on English for Specific Academic Purposes (ESAP). In EGAP students may be working in different fields of study, but require Academic English, whereas an ESAP course is attended by learners from the same discipline, such as Psychology or Business, and the materials are directly related to the learners' field of study. Moreover, there can be further classifications depending on the setting and the time the students are taking the course. For example, an EGAP Pre-sessional course is designed for students of various backgrounds who are studying Academic English before

embarking on their studies, whereas students studying ESAP along with their main studies could be on an In-sessional course. The following diagram clearly illustrates the EAP branches, drawing on Woodrow's classification (2018):

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                    ┌──────────┐
                    │   EAP    │
                    └──────────┘
                         │
           ┌─────────────┼─────────────┐
      ┌──────────┐           ┌──────────┐
      │   EGAP   │           │   ESAP   │
      └──────────┘           └──────────┘
           │                      │
  ┌────────────┐  ┌────────────┐  ┌────────────┐
  │Pre-sessional│ │ Foundation │  │In-sessional│
  └────────────┘  └────────────┘  └────────────┘
```
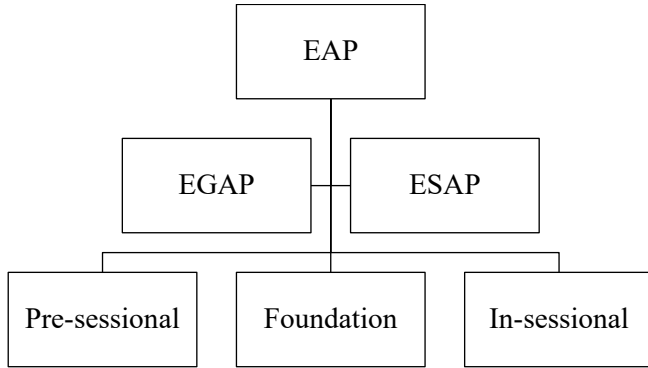
Fig. 2. Branches of EAP (Woodrow 2018)

## 4.3. EAP issues

Having made the distinction between EGAP and ESAP, researchers and teachers identify the key role of *specificity* in EAP, that is, the difference between the two branches. Taking an EGAP approach, Dudley and St John (1998, p. 41) described what they saw as key activities in EAP (e.g., Listening to lectures, participating in seminar discussions, reading academic articles and producing academic texts, such as essays). However, other researchers and teachers prefer to follow an ESAP approach and argue that there is an adequate number of differences between the two branches, and therefore courses that cover different and discipline-specific needs are required. Summarising the main reasons for an EGAP approach, Hyland (2006, pp. 10–11) notes that there are academic skills shared interdisciplinarily and that EAP courses should focus on language useful across subject fields. On the other hand, while discussing reasons for adopting an ESAP approach he raises the issue of what constitutes generic language and skills and expresses reservations over the concept of language common across disciplines. The conclusion that is finally drawn is that despite the shared feature of formality, it is not easy to delineate common language characteristics across disciplines, and that teachers and learners should be active participants and negotiators in the learning process (Hyland, 2006, pp. 11–14).

## 5. Course design in EAP

A further concept worth clarifying is that of Course design. While the *Curriculum* "includes the philosophy, purposes, design and implementation of a whole programme" (Nunez y Bodegas, 2007), a *course* is "an integrated series of teaching learning experiences, whose ultimate aim is to lead the learners to a particular state of knowledge" (Hutchinson and Waters, 1987, p. 65). The central role of course design in ESP, which encompasses EAP, as has been discussed, has frequently been highlighted in relevant literature (Basturkmen, 2010; Blaj-Ward, 2014; Flowerdew and Peacock, 2001b; Hutchinson and Waters, 1987). In the case of ESP the most common approach to course design is the language-centred one, for reasons that pertain to the significance of Needs analysis in ESP; that is, the language-centred approach is common in the field, as it utilises the relation between learners' needs and course content. Nevertheless, in their discussion on approaches to course design in ESP Hutchinson and Waters (1987) suggest that a negotiated, dynamic, non-linear approach, called learning-centred approach (putting the learning process at the forefront, as opposed to a learner-centred one) would be optimal in the field of ESP. They also argue that such an approach takes the learner into account throughout all the stages of course design:

– Identifying target situation
– Analysing target situation
– Analysing learning situation
– Writing syllabus
– Writing materials
– Teaching materials
– Evaluating learner achievement

The process is illustrated in the following diagram.
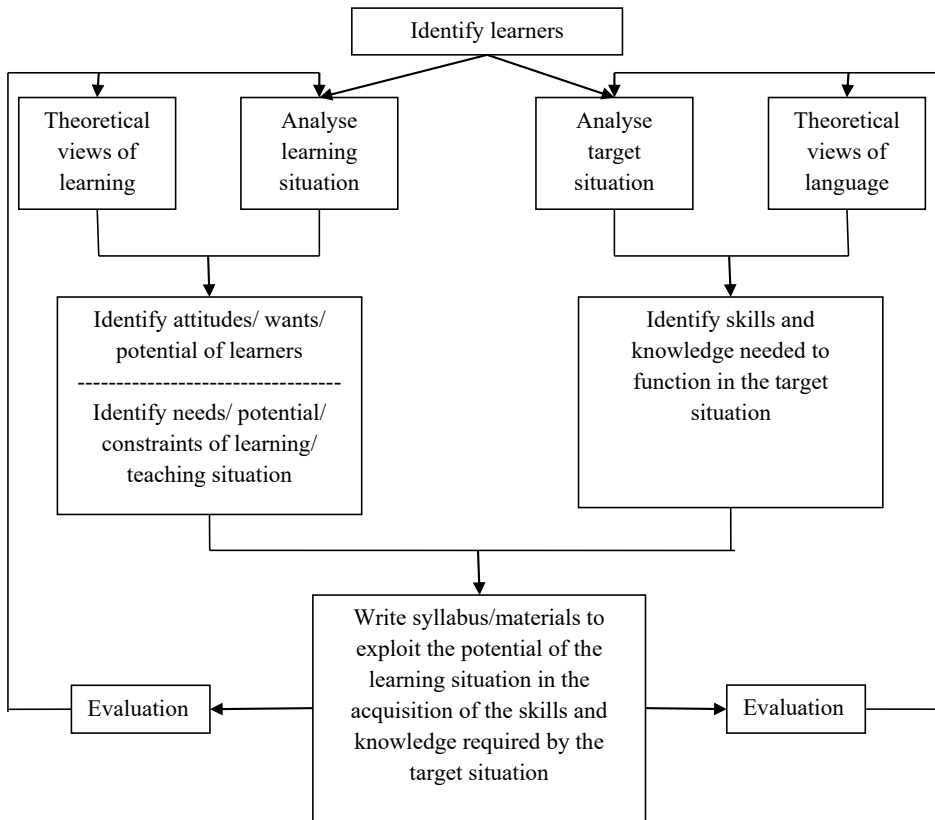
Fig. 3. Course design (Hutchinson and Waters, 1987)

Evidently, it is of paramount importance that a number of situational, teaching and learning parameters be considered in the field of syllabus design for ESP, and by extension EAP.

## 6. Needs analysis

Given the strong link between ESP and specific learner needs, Needs analysis or Needs assessment has been an inextricable part of the ESP movement (thereby of EAP as well) since the advent of ESP, or rather emerged within the latter field. In fact, the need to specify the particular needs of learners emerged in the second half of the twentieth century and while the demand for English language learning was increasing. Since the linguistic competencies required by specific

groups of learners (for example, professionals or military officials) regarding register and features had to be pinpointed, Needs analysis became an important part of syllabus and course design. In Europe the Council of Europe responded to the issue by proposing a framework for designing language courses for adults, while internationally the ESP movement recognised the necessity of appropriate preparation of non-native students wanting to study at British and American Universities (Richards, 2001).

In terms of literature, Munby's (1978) widely acknowledged work *Communicative Syllabus Design*, can be said to have marked a milestone in the history of Needs analysis with Munby's introduction of the Communication Needs Processor (CNP), a standardized procedure for identifying learners' communication needs. In defining Needs analysis, it is worth noting that even the term *needs* has been described in a number of ways, such as demands, motivations, goals, deficiencies, desires (Dudley-Evans & St John, 1998). As for Needs analysis per se, it has been defined as "the first step in the course-design cycle in ESP and refers to the systematic analysis of what learners need in order to operate in the target communicative situation" (Woodrow, 2018) or as the collection and analysis of data in a systematic fashion with a view to producing a tenable curriculum (Brown, 2016).

An important aspect of Needs analysis is the type of needs that have to be identified. To that end researchers have classified needs in a number of ways. Hutchinson and Waters (1987) draw a distinction between *target needs* (what learners need the language for) and *learning needs* (what the learners have to do to learn the language). The authors proceed to distinguish between *necessities (*as defined by the target situation*)*, *lacks* (what the learners do not know yet) and *wants* (which may not be the same as what teachers believe students should be taught). The latter is reminiscent of Berwick's (1989) distinction between *felt needs* (needs as felt by the learners) and *perceived needs* (the needs as felt by the teachers). A further classification distinguishes between *objective needs* and *subjective needs* (Brindley, 1989). Objective needs relate to the language students need to learn and the target situations in which the language will be used. Subjective needs, on the other hand, pertain to emotional needs, personal learning styles and expectations, and are more difficult to identify.

Frameworks for a Needs analysis process can be provided by relevant literature (Woodrow, 2018). One of them is the framework offered by Bocanegra-Valle (2006), drawing on EAP research. Below are the stages of the Needs analysis procedure based on Bocanegra-Valle's framework:

– Target situation analysis
– Discourse analysis
– Present situation analysis
– Learner factor analysis
– Teaching context analysis
– Task based analysis.

Lastly, following the examination of researchers' efforts to standardise and add reliability to Needs analysis procedures, another approach is also worth noting. Benesch (1996) proposes that a critical approach to Needs analysis should be adopted, arguing that Needs analysis is not an objective process, but a political and subjective one and therefore identifying the target situation cannot be free of the analyst's own beliefs and attitudes.

## 7. Conclusion

ESP and EAP are key fields in English language pedagogy and especially in Higher Education. An insight into the EAP and ESP typology is essential when designing or teaching on EAP/ ESP courses. This chapter aimed to offer a conceptual analysis of ESP and EAP and to provide a discussion on related aspects of language pedagogy; the curriculum, the syllabus, course design and needs analysis. ESP (and its branches, such as EAP) emerged out of the need for adapting teaching methodology and materials to suit specific learner needs. In order to achieve that, the analysis of a number of factors has to be taken into account, including (but not limited to) learner needs, learning context, target situation, syllabus and materials.

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# The categories of grammar in resource-books of English for advanced learners

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**Abstract**

The courses of morphology and syntax of the English language as linguistic disciplines studied at university level elaborate on a systematic description of the language, logically categorising the individual items of the language system. In doing so, the traditional structural terminology is employed, describing the phenomena such as complex verb phrases which may comprise modal exponents, i.e. epistemic and deontic modality, progressive and perfective aspects or the category of active vs. passive voice. As in any scientific field, the language used should provide clarity and precision and ambiguities should be avoided. In the field of applied linguistics, however, the requirement of precision in the description of the language categories seems impossible to comply with. This paper discusses the ways the categories of English grammar are defined in standard structural linguistic resources and compares them with publications in the field of applied linguistics at advanced levels. It also contrasts these against the lexical approach introduced by Lewis. The aim of the paper is to highlight the presumed discrepancies between the aforementioned types of resources and help to facilitate the ELT in the field of presenting English grammar.

**Key words:** descriptive grammar, communicative approach, lexical approach, general rule, tense and aspect, modal verbs;

## 1. Introduction

The ways grammar categories are presented in structural linguistic and ELT resources have long shown indisputable discrepancies. This stems primarily from the fact that 1) ELT and language learning establish a cyclic process which has been defined from a practical rather than theoretical point of view, 2) the gradually altered approach to grammar proper has re-defined teaching it. The structural view of grammar has changed from the original prescriptive into a descriptive one, while in ELT the Communicative Approach brought about the strategy of teaching

'functions' rather than structural categories, relying on the semantics encoded in form. The question to consider is whether these new approaches bring more clarity to a student at advanced and proficiency levels, where it is accuracy that establishes the target of ELT, not the fluency or spontaneity declared for the lower levels.

When Lewis first published his book *The English Verb* in 1986, he addressed current ELT participants and the presentations of grammar rules in the established grammar resources. He spoke of imprecise 'catalogues of rules/meanings' presented to the learner, which lead to gradual re-defining of the once stated rules. He maintains that such 'catalogues' lead to confusion and despair of the learner, who, after a period of time, hears the rule once lain before them first contradicted, then re-formulated. Lewis unfolded for the English teachers a new view of teaching English grammar, submitting some then 'traditional' grammar books such as Thomson and Martinet's *Grammar of the English* language to criticism. Not only does he suggest that many of the explicit definitions and rules stated in the book are often unclear and implausible, but he also claims that such a resource book, affected with the prescriptive approach to teaching grammar, is a false concept in general. Lewis focuses on semantic notions lying behind the applied rules, clarifying the broader semantic concepts buried in the nature of English, rules which can be applied universally and which he calls 'general rules' (p. 30). Michael Swan (1980, 1989) seems to have a similar attitude, providing the students with less decided claims, but systematically listing 'spoken' varieties of the same category, thus following the so-called descriptive grammar.

One may agree that the descriptive-grammar approach has for long been more or less adopted by current English course-books. However, the 'catalogues of meanings' presented in course-books seem to have been both retained and outdated. Moreover, it now appears that the method of language description, where both formal and informal registers co-occur and semantics plays the main part to some extent, ignores the potential ambition of the course-book user to reach real proficiency, or to acquire the 'standard', or so-called formal register. Like with the courses where the 'working knowledge' is expected as the outcome, the proficient user of a course book is commonly exposed to fractional explanations and only collections of samples rather than exact clarification of the categories considered. The Communicative Approach to English Language Teaching seems to systematically exclude the method of structural linguistics from teaching the language, preferring purely semantic categorizing. This method may find its justification in the claim that detailed description of the language structure would be inconvenient for young learners and contradict the communicative approach to foreign language teaching. Nevertheless, the communicative approach might be subjected to scrutiny when it comes to the advanced levels (C1+ and C2), where

the target of foreign language teaching aims at achieving accuracy, i.e. perfection in using the grammar forms flawlessly.

To explain a grammar phenomenon and the formal and semantic nuances it may convey, one needs to rely on linguistic terminology, which has its unique potential to clarify the structural elements and functions transparently and efficiently. The present-day course-books provide their users with informal collocations and idioms, but accuracy in presenting grammar as well as formal register phrases remain supressed. In the Czech Republic, the requirements for future language teachers have traditionally been high. The focus on form is thus essential – incorporating in itself the usage of standardised linguistic terminology. But while the classes of practical language are being held alongside with the linguistic subjects, the future professional users of the English language perceive the discrepancies between their linguistic and practical terminology and categorizes employed, i.e. between their linguistic and practical language classes. The linguistic theory thus finds itself detached from 'school reality', on the other hand, the inquisitive learners may find the fuzziness of language description in practical course-books inadequate and misleading. This paper suggests that such practice should be altered, and the teaching materials at C1-C2 levels should take into account that their users are likely to be professionals, with the view of enabling them to clearly observe the links between their purely linguistic studies and their studies of 'practical language', or 'applied linguistics'. The research related to this paper lies in observing whether the following chosen grammatical phenomena are presented similarly in both linguistic and applied resources at the advanced levels.

For the purposes of this paper, the following basic grammatical phenomena were focused on as for the way these are presented in manuals at CPE level:

a) the categories of tense and aspect in the English language
b) the two major types of modality

Three manuals have been researched in detail, with a limited set of additional course-book resources which were part of the research:

*Cambridge English Objective Proficiency*, CUP 2013, 2015; Annette Capel, Wendy Sharp

*Proficiency Masterclass*, OUP 2012, 2016; Kathy Gude, Michael Duckworth, Louis Rogers

*New Progress to Proficiency*, CUP 2002 (first published in 1986, second edition 1993); Leo Jones

## 2. The categories of tense and aspect in the English language

### 2.1. The morpho-syntactic perspective

In standard linguistic resources (Quirk et al., 1985) a clear distinction is postulated between the two categories. The authors define tense 1) on the basis of morphology as strictly expressed by inflection, 2) as a category primarily reflecting the present vs. past distinction, though they admit that 'the English present tense, for instance, usually, but by no means always, signifies present time.' 'This makes the usage of the term 'present tense' plausibly appropriate, but also potentially misleading' (Quirk et al., 1985, 175). Leech (1971, 1987, 1992) maintains that the Present Tense in all its uses shares a basic association with the moment of speech. 'The state or event has *psychological* being at the present moment. This element of meaning does not exclude the possibility of its having *actual* being at a time other than the presents' (p. 5). This seems to make the ELT at all levels relatively complicated.

Lewis (1986, 1994) claims overtly that 'it is not characteristic of the present simple that it is associated with Present Time; the feature which all uses of the present simple share is that temporal reference is unnecessary' (p. 64). Lewis speaks of the Present Tense as of the base, or the unmarked form and suggests the term Basic Form as the one related to the terms of *infinitive* or *imperative*. This is, though, a disputable suggestion, given that in synthetic languages these categories do have their individual forms and the categories thus are well understandable to the learner (it is but a pleasant finding to them that the forms in English are less demanding to acquire).

Similarly to the present tense, the past tense has other functions in the grammatical system of the English language than that of denoting past processes. Leech (1971, 1987, 1992) says that there are two types of meaning conveyed by the commonest use of the Past Tense, i.e. 'the normal use of the Simple Past: 1) 'the happening takes place before the present moment' – with the present moment being excluded, 2) 'the speaker has a definite time in mind' (p. 13). Leech mentions other uses of simple past, labelling them as 'hypothetical'. This corresponds with Quirk et al., who speak about a 1) a 'gap in time' between the completion of the action, or a similar gap the speaker has in mind (p. 183), or 2) indirect speech or thought, the attitudinal past, e.g. *Did you want to see me now?*, or hypothetical past used in subordinate clauses. (pp. 187–188). Similarly, Huddlestone and Pullum (2005, 2007) speak about three types of the preterite: a) past time, b) modal preterite (e.g. 'I'd rather they lived nearby' labelled as counter factuality or modal remoteness), c) backshift (p. 46–47).

Indisputably, the term '*remoteness*' suggested by Lewis (1986, 1994) is a most suitable one, as it may be universally employed for all the basic areas of tense usage.

In accordance with the standard linguistic resources, Lewis suggests: 'There is an underlying similarity of meaning of all uses of what is traditionally called 'the past simple'. The similarity is that in all cases the speaker conceptualises the action is factual but with an element of remoteness. The remoteness may be of different kinds – remoteness in time (the most common), remoteness of relationship, possibility, etc. The traditional 'indirect speech' uses are also remote.' (p. 74). This explanation brings clarity to the explanation of all the possible traditionally 'irrealis' propositions, such as the optative, the subjunctive mood types, or any hypothetical propositions.

On the other hand, the aspect is defined as 'a grammatical category that reflects the way in which the verb action is *regarded* or *experienced* with respect to time' (Quirk et al., 1985, p. 188). They then specify that the perfective aspect indicates ANTERIOR TIME, i.e. time preceding whatever time orientation is signalled by tense or other elements of the sentence or its context (p. 190). The meaning of the progressive aspect can be separated into three components: a) the happening has duration, b) the happening has limited duration, c) the happening is not necessarily complete (ibid.). The independence of aspect and tense is thus made unequivocal. Biber et al. (1999) use the following terms: *Perfect aspect present tense, Perfect aspect past tense, Progressive aspect present tense, Progressive aspect past tense*. All these four forms considered, the claim is supported that the two terms of tense and aspect, however they may combine within a verb phrase, should be pondered separately. Quirk et al. (1985) observe the effect the progressive aspect creates with state verbs, stance verbs, dynamic punctual verbs and transitional event/state verbs, and illustrate the effect of the combination of the two types of aspect, i.e. progressive and perfective on these sub-types of verbs. But one cannot disagree with Lewis, who postulates: 'Aspects give the speaker's temporal interpretation of the event. They do not refer to *real* time, but to *psychological* time – to the *speaker's* perception of the quality of the event.' (Lewis, 1986, 1994, p. 85). It is only necessary to reveal to the learner the basic notions behind the two types of aspect. With the perfective one, close to Quirk's term of anteriority, Lewis recommends the term 'retrospective', i.e. either present or past retrospective (corresponding with the past perfect). As for the progressive aspect, Lewis recommends as a classroom explanation to perceive the process not as a point, but rather as a period (*I propose a toast* vs. *It is raining*), or rather a limited period of time (*I live in Oxford* vs. *I am living in Oxford*).

Like the standard linguistic resources, Lewis ponders the completeness of the process:

> We could alternatively say that the speaker sees the action as *incomplete*, but *completable*, already in the process of being completed. The topmost important

> aspect is how the speaker conceptualises the process. … Non-continuous forms express the speaker's view of the event as a complete, unitary whole. In contrast, the 'continuous' forms express incompleteness, and in particular incompleteness in time.

Further on, 'Incompleteness in time' means that 'the speaker conceptualises the action as occurring for a period, and that this period is limited' – the event having limited duration. Lewis thus suggests the term *durative* forms. (Lewis, 1986, 1994, p. 91). Clearly, as for the tense-aspect combinations, we can conclude that it does not seem adequate to label the aspectual combination with tense as individual tenses.

Professor Dušková from Charles University in Prague concurrently best represents the Czech contrastive structural grammar. She provides a thorough description of the English grammatical system as compared with the Czech one, speaking about the 'temporal system of the English language' (Dušková, 1988, 2012). She ponders the similarities between the aspect-marked variants in English with the Czech category of 'vid' (*dokonavý* vs. *nedokonavý,* i.e. '*completed*' or '*incompleted*'). Though she points out that there are numerous limitations (namely with the perfective aspect, where the notion of 'completeness' is related only to telic verbs), for the progressive aspect at least there is a clear overlap with the Czech category of vid *dokonavý –incomplete* (pp. 241–242).

Though Dušková (1994) points out that the Czech category of vid is an inherent component of the Czech verb, while in English the corresponding progressive aspect concerns only the aspect-marked variant, I suggest that the following examples will suitably serve the purposes of ELT via a contrastive method: progressive aspect – *I was doing* – nedokonavý vid – *dělal jsem*, perfective aspect – *I have done* – dokonavý vid – udělal jsem.

We may also observe that both utterances above have a past connotation in Czech, stating that the activity rather than the action is finished. The past reference remains, regardless of the choice whether the action is finished completely *I have done* – udělal jsem or finished for the time given *I was doing* – dělal jsem.  The Czech past tense will always be used, but what will differ is the category of vid, corresponding to that of the perfective or progressive aspects. On the other hand, one may even suggest the word-by-word translation of the first utterance – *I have (it) done* – as *Mám (to) uděláno*/*Mám (to) hotovo* (*I have (it) finished*). Then, again, the tense will be present like in English, but the category of vid corresponds again with the perfective aspect. Similarly, with state verbs, the meaning for the Czech of *I have worked/have been working here for two years by now* is present to a Czech, as it is to an English native (the hope for its continuation expressed by the progressive aspect plays little role in the perception of the present perfect, in other

words the present tense). Thus the Czech language in a way, however different from English in terms of morphological classes of languages, supports the idea that the tense is a different category from the English aspect.

Turning back to Lewis (1986, 1994, p. 87) and his postulating the speaker's importance in forming the proposition, one must accept the general point of the difference between grammar as fact and grammar as choice, so that the form in fact expresses the speaker's view of the event.

In other words, we can now conclude that the whole complexity of the different grammatical systems could be presented in a far more transparent way did we not insist on fragmenting the categories into a 'catalogue of terms and meanings', informing the learners that there are up to fifteen tenses in the English language. To a Czech learner, who only knows three, but who is likely to embrace the parallel with the category of vid in Czech, this is a material deterrent. The paradox of this all is the fact, that in the grammatical system of English, there are in fact only two tenses, i.e. fewer than in Czech. The solution for ELT seems to be three-fold. First, it lies in the systematic usage of terminology such as the tense and aspect described separately. Second, teachers need deeper insight in the system that will allow them to present some undeniable basic concepts, e.g. the notions of *anteriority* or *retrospective*. These are useful for learning and will not require their re-definition in the following stage of learning. Last but not least, at advanced and proficiency levels, grammar should not be perceived as a restriction, but it should already be perceived as a way of expressing the nuances users of the language bear in mind. It is not that we should serve grammar, but we should be able to use grammar as a tool to express the nuances we wish to.

## 2.2. The CPE manuals

### 2.2.1. Cambridge English Objective Proficiency, CUP 2013, 2015; Annette Capel, Wendy Sharp:

In Unit 1 of this course book, the following terms are listed: *Perfect tenses: Present perfect simple tense, Present perfect continuous tense, Past perfect simple tense, Future perfect simple tense, Future perfect continuous tense*.

We have observed the fact that the aspect and tense should be described separately, as their semantic applications differ, and to an advanced learner with analytical thinking such ad hoc terms are little transparent. The 'catalogues of rules and meanings' phenomenon, criticised by Lewis, is exemplary in this course-book. For the '*Present perfect simple tense*' the catalogue includes four items: 1) when talking about events or situations that started in the past and are still true (but how about '*I inherited this house from my parents*'?), 2) when considering the present effects of something that happened in the past (but how about '*I was*

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*born in 1980*'?), 3) when addressing a recent event or situation (but how about '*I have been to Canada once* ' – see Lewis's point about this 'rule' implausible as a general rule of grammar), 4) when referring to something that will happen at some time in the future (but how about '*I will be twenty in December*'?). The universally applicable term of 'anteriority' or 'remoteness' are not mentioned.

Similarly, with the '*Past perfect simple tense*', defined as a form used 'to refer to an event which took place before something else' does not provide any clear insight in the matter (how about '*I went to the library and they offered me a job there?*'). The progressive aspect is similarly reduced in terms of the grammar folder in the book, providing only one *ad hoc* example to complete the 'catalogue of rules' for all the progressive verb phrase alternatives.

Moreover, the authors do not reflect the possibility that its user is likely to have at least some linguistic knowledge and thus may find the terms utterly misleading; a learned proficiency student is well likely to know that a simple verb phrase consists of one verbal element exclusively, i.e. a simple verb phrase only includes the lexical verb, e.g. *I drive*. If complex, the verb/predicate incorporates auxiliary verbs – up to four of them, such as in the following example. A complex VP:

Table 1. Verb phrase with auxiliaries

| operator | auxiliary $_2$ | auxiliary $_3$ | auxiliary $_4$ | head |
|:---:|:---:|:---:|:---:|:---:|
| **(o)** | **(x$_2$)** | **(x$_3$)** | **(x$_4$)** | **(h)** |
| *will* | *have* | *been* | *(being)* | *done* |

Stating that a 'Past perfect simple tense' or 'Future perfect simple tense' exist contradicts both the early prescriptive and the later descriptive grammars, including Quirk et al, Biber et al, Leech or Swan. The course-book does not show any such reflection provided by Lewis (1986, 1994) either; the brief list of examples by no means corresponds with the proficiency level.

## 2.2.2. Proficiency Masterclass, OUP 2012, 2016; Kathy Gude, Michael Duckworth, Louis Rogers

The terms employed in this course-book seem, to some extent, more appropriate, their headings being the following: *Narrative Tenses*, *Perfect Aspect*, *Stative Verbs*, *Simple or Continuous*.

In Unit 1 the authors mention *past verb forms*, respectively past simple (even to express distance from present reality, hypothetical situations, less direct requests and offers), *past continuous* and *past perfect*. The Grammar Reference Section thus incorporates more technical terminology, but still, both the explanations and examples found in the actual studying material (exercises found in the unit) are largely limited.

In Unit 4 the *Perfect Aspect* is re-visited (though only as a part of the set of *Present simple, Present Continuous, Present Perfect*). The category of the perfect aspect seems inadequately represented for a proficiency level, with the related exercises at a rather mediocre level.

In Unit 7 the *Continuous Aspect and Stative Verbs* are introduced and presented at a satisfactory level in the 'Grammar Reference Section, with detail included. (Further exercises, though, are needed and must be provided from other resources outside the course-book.)

One of such additional resource-books is Advanced Grammar in Use by Hewings (1999). Not only does this publication offer a more intensive insight into the tendencies in favour of the progressive aspect in contemporary English (though his course-book claims to correspond to the 'advanced' rather than proficiency levels), but it is far more systematic in terms of Lewis' 'general rules' (though the linguistic terms are not specific). The explanations in the Proficiency Masterclass course-book only pick examples at random without further clarification of the matter.

### 2.2.3. New Progress to Proficiency, CUP 2002 (first published in 1986, second edition 1993); Leo Jones

As for the category of aspect, only the meanings are revised in Unit 7.4, labelled as Grammar review – Past and Present (p. 78). No distinct linguistic terminology is used, no presentation designed, the nuances in meaning are meant to be explained by paraphrasing. This approach seems to reflect the utmost tendencies in ELT of the period, where the 'Communicative Approach' in ELT was experiencing its climax. Nonetheless, Leo Jones' course-books are in all other respects acknowledged as most brilliant and highly recommendable. Even grammar-wise, there are definite pros to be pointed out: numerous working examples are provided and they offer a rich language resource for the learner at the proficiency level.

# 3. The two major types of modality

## 3.1. The morpho-syntactic perspective

'At its most general, modality may be defined as the manner in which the meaning of a clause is qualified so as to reflect the speaker's judgement of the likelihood of the proposition it expresses being true' (Quirk et al., 1985, p. 219). This brief semantic definition only establishes a framework within which the authors distinguish the following two types of modality: intrinsic (expressing permission,

obligation, volition, which involve some kind of intrinsic human control over events) and extrinsic (expressing such notions as possibility, necessity and prediction, 'which do not primarily involve human control of events, but do typically involve human judgement of what is or is not likely to happen' (ibid.) Quirk points out that there is a gradient between these two types. This may have led numerous grammarians to speculate about the modals as 'so extremely messy and untidy 'that' the most the linguist can do is to impose some order, point out some regularities, correspondences, parallelisms' (Lewis, 1994). Thus there occur ambiguities in recognising the intended modality with modal verbs such as *will*, where one intended meaning might be prediction (extrinsic), while the other one, i.e. volition (intrinsic) is also possible; thus, in accordance with Quirk, we may conclude that a modal auxiliary verb commonly has both a) intrinsic and b) extrinsic meanings. If so, the same modal meaning can be expressed by more modal verbs, while other than prototypical modal verbs are also part of the set of verbal exponents used to carry the function. Biber et al. (1999) speak about nine central modal auxiliary verbs used to express modality (*can*, *could*, *may*, *might*, *shall*, *should*, *will*, *would*, *must*), marginal auxiliaries (*need to*, *ought to*, *dare to*, *used to*), taking 'auxiliary negation' and yes-no question inversion, and the so-called semi-modals/quasi-modals/periphrastic modals (e.g. *have to*, *be going to*, *be able to*, *be willing to* etc.), which can carry the categories of tense and person, and can occur as non-finite forms, thus combining with central modal auxiliaries within one verb phrase, e.g.: *The county council will have to ask colleagues to bid for money on its behalf* (Biber et al., 1999, p. 484). Standard academic resources also point out the possibility to group the central modals into pairs with related meaning (with the exception of *must*), one member of the pair representing the original present tense form, while the other corresponding modal can refer to past time: *can – could*, *may – might*, *shall – should*, *will – would*. Of course, we now regard modal verbs as unmarked for tense (Biber, et al., 1999, p. 485), as the past tense forms are commonly used to denote present or future processes. However, the question arises whether sticking to the old distinction would not bring more light to the understanding of the matter of modality within ELT.

Lewis (1986, 1994) defines the modal auxiliaries, i.e. the prototypical carriers of modal meaning (*can*, *could*, *shall*, *should*, *may*, *might*, *will*, *would*, *must*) as a group which always behave similarly, and which behave similarly to each other as follows: 1) They occupy the first place in a complex verb phrase, 2) They do not co-occur, 3) They are used as operators in the formation of questions, negatives, etc., 4) They share important semantic similarities. (p. 101). The speaker's interpretation of non-factuality, maintains Lewis, is an enormously broad concept which may include such notions as *speculations*, *guesses*, *estimates*, *idealisations* (p. 102). But Lewis seeks the *primary semantic characteristics* first, before the *communicative meanings*, which are numerous (p. 103).

Accordingly, he insists that understanding the verbs *shall* and *will* as modal auxiliaries is crucial (rather than their denoting 'the future tense', still acknowledged by some grammarians, including Dušková (1994), although she acknowledges their modal character). As Lewis (1986, 1994, p. 100) puts it,

> […] accurate sorting is a prerequisite of accurate description; the traditional dis-sorting of these items has been a source of much confusion. Recognising them as modal auxiliaries helps clear the way for deeper understanding of their primary semantic characteristic.

Amongst the communicative modal meanings, Lewis randomly lists semantic 'elements of *possibility*, *necessity*, *desirability*, *morality*, *doubt*, *certainty*, etc.', but one might easily suggest many others, such as *deniability, admittance* or *uncertainty.* Lewis presents the following set of examples: *He's coming. He's probably coming. He might come* (p. 101). With the first example being non-modal, one can notice it is presented as a fact. The phenomenon of non-factuality related to modal-marked utterances stands out as a crucial one here. Similarly, the modal meaning can be paraphrased and defined. Lewis thus identifies the principal meaning of *can* as possibility, while this can be sub-categorised, into e.g.: *ability* – which stands for 'it is possible for me to do it: Can you swim? *possibility decided by rules*: You can't smoke in here, *offers*: Can I give you a lift?, *deduction – logical possibility*: He can't be French. The same distinction is observed with the past tense functions, i.e. the function of expressing 'remoteness' is correspondingly applicable with the modals: unlike *can*, *could* represents remoteness in time, relationship, likelihood (p. 112).

With a somewhat mathematical approach, Lewis also addresses the difference between *must* (subjective necessity) and *have to* (objective necessity) and the position of *must* as the exceptional central modal auxiliary which does not seem to have a 'past tense counter-part'. He explains that as *must* refers to speaker's (subjective) perception of necessity, as soon as the speaker recalls the event in Past Time where something was necessary, that necessity becomes objective, hence *had to* is employed automatically (p. 111).

However eye-opening Lewis´ suggestion might be, I believe that the structural linguist who acknowledges the distinction made between the intrinsic (root/deontic) modality and the extrinsic one would bring more light to teaching modality at advanced levels. This is most evident when we refer to past events and situations; with extrinsic/epistemic modality, the speaker 'modalizes' at speech time about a situation anterior to the speech time – or remote to the speech time; thus logically we combine the modal verb with perfect infinitive denoting such an anterior process. Lewis provides a useful insight into the broad concept of

modality. On the other hand, traditional structural grammarians, such as Quirk, Biber or Dušková, provide the learner with reasonable categorizing. In course-books, however, they are the 'catalogues of rules and meanings' that are likely to prevail.

## 3.2. The CPE manuals

### 3.2.1. Cambridge English Objective Proficiency, CUP 2013, 2015; Annette Capel, Wendy Sharp:

In unit 4 an ad hoc term of 'Speculating about the past' is employed, where the users are advised to use the terms 'a modal + have + past participle'. The extrinsic/ epistemic modality is thus presented (without the terms being mentioned) as serving the following three functions and applications: 1) to express certainty or near-certainty about something in the past, the modal verb *must* is used with *have* and a past participle; 2) to express uncertainty about something in the past, the modals verbs *could, may, might* are used with *have* and a past participle; 3) to express impossibility about something in the past, the modal verbs can't or couldn't are used with *have* and a past participle (p. 180). Another question arises here, i.e. whether *could* and *could not* are or are not 'the same modal verb'. The terminology used is highly inconsistent for the level considered.

A similar method of grammar presentation is employed where 'using the passive in the past' is introduced. There are only two passive infinitives that are commonly used in English, the present and the perfect forms: *This yoghurt needs to be eaten before 25th. Radical cuts to the budget seem to have been made by the managing director*. Again, the term of 'anteriority' (or remoteness), which would serve the logic of the explanation, or any other logical paraphrase is avoided.

In unit 6 the 'Degrees of likelihood' are announced; the explanatory content includes the following six sentences: 1) **can** is used to express possibility without reference to past, present or future (*He can sound off-key at times when he sings.*); 2) **could**, **may** and **might** express present possibility with reference to the future, present or past; 3) **may not** and **might not** express possibility negatively (a most misleading semantic concept; how about: *This might not be useless indeed?*) 4) Deduction is expressed by **must be / must have been** / **will be / will have been** and **should be / should have been** (then, how about *might be/might have been*?); 4) Impossibility is expressed by **cannot/can't** and **could not**. 5) **could** and **might** can be used to imply criticism or irritation (the modal expression in 'could be used' – contradicts the term of *rule* at all); 6) **could** and **might** can be used to imply criticism or irritation (e.g. *You might have told me you'd be coming late*). An appropriate comment follows, i.e. that 'intonation is very important in carrying meaning with those modals' (p. 181).

In unit 18, where the grammar part is labelled as 'Modals review', 11 semantic categories are listed as follows: 1) Strong obligation, 2) Weak obligation, 3) Unfulfilled obligation (past), 4) Prohibition, 5) No necessity, 6) Speculation, 7) Deduction, 8) Ability, 9) Impossibility, 10) Advice, 11) Permission. The distinction between the two basic types of modality is not mentioned, nor the clarification related to the past reference. The presentation thus seems to correspond to a lower intermediate grade of presentation, rather than a proficiency one.

### 3.2.2. Proficiency Masterclass, OUP 2012, 2016; Kathy Gude, Michael Duckworth, Louis Rogers

Again, the presentation of the field of modality appears as highly unsystematic. The ad hoc terms used are those of 'prediction', 'possibility', 'necessity', 'deduction', 'obligation', 'modals with have + past participle'. No attempt is made to clarify the background idea presentable as a general rule, such as Lewis tries to introduce to ELT, occurs in the course-book. The distinction between intrinsic and extrinsic modality is not explained either, the logic of using the perfect aspect (perfect infinitive) with extrinsic modality is missed out.

### 3.2.3. New Progress to Proficiency, CUP 2002 (first published in 1986, second edition 1993); Leo Jones

The modal expression in English is only presented in the course-book as a list of modal meanings, revised in Unit 7.4. However, no linguistic terminology is employed. Epistemic/extrinsic modality is the main point, but the combination with perfect infinitive to 'modelise' upon anterior events is not included. The nuances in meaning are explained exclusively by paraphrasing ('discuss the meaning'). Like with the categories of tense and aspect, the author avoids theoretical notions and sticks to the communicative approach, covering the grammar items by their functions exclusively.

## 4. The CAE course-books – pilot study

### 4.1. New English File – Advanced, OUP 2010; Clive Oxenden and Christina Latham-Koenig

The term of 'aspect' is not mentioned in the book. Unit 2 only includes the subtitle 'the past: narrative tenses', in Unit 3 'unreal uses of past tenses' are announced. The term past tenses, though, suggests, that the authors have no problem to speak about many more English past tenses. Three simple rules follow, worded in the

form of imperative, e.g.: *Use the past simple to talk about the main actions in a story*. The authors mention the usage of *used to* and *would*, and an interesting point is made there: '*Used to* and *would* make it clear that you are talking about something that happened regularly and often convey a sense of nostalgia.' (p. 139). I dare suggest that such an explanation does not provide clarity as it could easily be disproved. However, the important difference between the two forms is overlooked. In Unit 3, the 'unreal uses of the past tenses' (again in plural) are introduced; examples are given, accompanied by instructions (We use…, We sometimes use …, You can also use …). I believe that the generally applicable notion of *remoteness* from time/reality would be most helpful as an appropriate explanation (p. 144).

Modality is presented as part of Unit 3A and Unit 5A. The former deals with the extrinsic/epistemic modality, but is labelled as '*Speculation and deduction*'; it seems useful, though, that the two types of modal meanings are not covered at the same time, which commonly produces a rather 'disorganised' way of presenting the matter of modality in general. The authors use the term of 'the perfect infinitive', but do not explain why it is employed in the structures listed. In Unit 5A the intrinsic/deontic modality are pondered without mentioning the term, though; the terms used are of purely semantic character (*permission, obligation, necessity*).

## 4.2. Advanced expert CAE, Longman 2014, 2017; Jan Bell, Roger Gower, Drew Hyde

The authors introduce the tense and aspect in Unit 1 of the book but avoid using the categories overtly. They label the sub-chapter as 'Mixed verb forms': present and past (simple, perfect and continuous). The presentation on the 'Grammar page' (p. 173) provides a proto-typical 'catalogue of meanings' with such concepts as 'thinking of past and present together' or 'recent past' (as meanings of the present prefect), which are criticised by Lewis as they are not generally applicable, and thus cannot establish a 'rule'. Similarly, the authors postulate that 'past tenses are used to describe situations in the present, past or future which are imagined or unreal', further on 'to indicate that the situation is unlikely'. Clearly, a better defined general rule would suit the presentation far more effectively.

The modal verbs are presented and practised in two units of the book, using such terms *strong opinion about a fact*, *controlling possible action*, or *deductions* as distinguished from *possibility* or *probability*. The distinction between intrinsic and extrinsic modality is blurred by these ad hoc terms, and little clarity is thus imported to the advanced user. Notes such as the following, listed but never explained logically, only underline the superficiality of the language presentation:

'*Need* has two past forms with different meanings: *She didn't need to take a coat. It wasn't co*ld. (We don't know if she took a coat or not.) *She needn't have taken a coat.* (She took one, but it wasn't necessary)' (p. 178).

## 4.3. English Unlimited, CUP 2011; Adrian Doff and Ben Goldstein

The book has been released in Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo, Dehli, Dubai, Tokyo, Mexico City, thus it is probably a material designed by the authors as a universal, multi-cultural resource. This seems to have put paid to the advance level of grammar and formal register. The grammar topics have been thoroughly marginalised in this publication, being reduced into randomly chosen topics, all introduced in the Grammar parts by a set of ad hoc created terms such as: *Will and would*, *Adverbs*, *Talking about change*, *Passive reporting verbs* or *Whatever*.

The tense and aspect are tackled in Unit 2 of the book, under the heading of 'Verb tenses in narration'. Four forms of verb phrases are summed up here: Past simple, Past Progressive, Past Perfect Simple and Past Perfect Progressive. The term 'state verbs' is mentioned with respect to the progressive forms, but every piece of information is minimalized with one example presented only for each function. *Would* and *was going* are added to that list. In Unit 6, Present Perfect is the grammar focus. Present Perfect Simple is defined as a form used 'to refer to events in a period 'up to now', to announce news, with the events connected with the present (we can see the result now) (p. 142). With Present Perfect Progressive, the authors come back to the notion of 'state verbs', list a group of them and point out that they 'are not normally used in the progressive form'. The whole presentation is though concise and does not substantially expand the topic any further.

As for the modals, there are only two introduced as part of the Grammar reference: *Will* and *Would* in Unit 1. The authors present their 'habitual use' (*will* as equivalent to present simple and *would* to past simple), then they go on to list nine different functions of these two modal verbs, not taking into consideration the extrinsic and intrinsic types of the modal meaning.

## 5. Conclusion

Over the last three decades, evident discrepancies have been found between standard structural linguistic resources and ELT manuals/handbooks at the proficiency level. That is concerned with both the manner of explaining the linguistic phenomena

such as tense, aspect or modality but also the terms and categories perpetuated in the course-books. The authors of common studying materials for advanced learners thus appear to be either lacking the standard linguistic knowledge or overlooking it as dispensable for the learner. This apparently stems from the general policy of the prevailing 'Communicative Approach Methodology', whose core principle is to teach students to communicate to various degrees of fluency, rather than understand the linguistic system and become accurate. In other words, this methodological approach has long outweighed striving for deeper insight in the very subject matter, i.e. the language itself. If the course-books are in general designed so as to appeal to the user and present the language material in a most up-to-date manner (including the political bias of a period), the focus on system and form will always be supressed. As for the linguistic terminology – the categories of morphology and syntax are thus rarely employed in the manuals.

The main thrust of this paper is to draw our attention to the terms, categories and ways of presentation which occur in a selected set of modern CPE and CAE course-books. The author observes to what extent and relevance the linguistic terms are reflected in these practical resource-books and provides comments based on both perspectives: the linguistics proper and applied linguistics.

This paper has also attempted to confront the standard linguistic resources with the lexical approach introduced by Lewis, who considers the idea of 'catalogue of rules/meanings' recurring in course-books as misguided. He submits the strategy of presenting rules which are gradually disclaimed and re-defined to criticism, and suggests for the students to be hinted at some general rules or concepts such as *remoteness* for past tense form of the verb, or *anteriority/remoteness* for the perfect aspect.

It must be pointed out that the contrastive method is often most effective, including the analytical translation (see the useful comparison of the category of *aspect* and *vid* in Czech).

Last but not least, the topic is closely related to another field of university discourse; students of pedagogy, who specialise in the English studies as future English teachers, often comment on the redundancies with which the linguistic disciplines operate, perceiving linguistic disciplines as detached from the 'real language usage' and 'classroom practice'. I believe that the better the teacher novice understands the language system, the better they are prepared and equipped to enter the classroom and provide their students with learned answers to those enquiring 'why-questions'. The author of this paper suggests that a sound knowledge of the language system and clearly defined terminology benefits to all participants in the second language teaching and learning processes.

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# Aspectual pair, aspectual triplet, aspectual cluster: what is the unit of the category of aspect and can the answer be tested experimentally?

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**Abstract**

This paper is an attempt to show that the problem of identifying the unit of the category of Russian aspect indicates the explanatory and predictive potential of an aspectological theory. We introduce a wider scientific community to the theory that regards the aspectual pair (or the two-term / binary paradigm) as the only one unit of the category of Russian aspect and that characterizes the notion of the aspectual triplet as an obstacle to aspectological studies. We show how the theory explains Maslov's (2004) paradox about so-called instantaneous / momentary / punctual verbs such as *прыгнуть* 'to jump'. The advanced explanation can be tested by cognitive experiments, which will serve as one more argument for the aspectological theory that rejects the notion of aspectual cluster of any type.

**Key words**: aspectual pair, aspectual triplet, aspectual cluster, the unit of the category of Russian aspect, semelfactive / momentary / instantaneous / punctual verbs, Slavic-type aspect, cognitive experiments

## 1. The notions of the aspectual pair, aspectual triplet, and aspectual cluster

"Mysterious" for learners (Młynarczyk, 2004, p. 1) and "a conundrum" for scholars (Paducheva, 2010, p. 9), the category of verb aspect in Slavic is, nevertheless, successfully studied. This is all the more paradoxical given that there is a wide range of interpretations of the notion of aspect itself: compare definitions in, e.g., (Vinogradov, 1953, p. 426) and (Comrie, p. 3). Moreover, there appears to be only one thesis unanimously accepted by researchers undertaking aspectological studies. The thesis is that the category of aspect that modern Slavic languages possess is of the same type (e.g. Moldovan et al., 2005).

Thus, it is hardly surprising that the unit of the category (or "the aspectual paradigm", in terms of the theory we follow) is a debated topic. The "nominees" are the aspectual pair, aspectual triplet, and aspectual cluster. We introduce them below in the order in which they have come on the scientific scene.

The notion of the aspectual pair was developed by the Slavistic tradition (for the background of the idea, see Vinogradov, 1986, pp. 393–439). To appreciate this intuitive insight, let us have a look at a group of Russian verbs that represent the same derivational family.[1]

Note that:

- active voice verbs are only given (in order to keep the explanation as simple as possible);

- there are hundreds of such groups in Russian;

- a similar example can also be provided from any other Slavic language:[2]

$^{impf}$**маз**ать   $^{pf}$по**маз**ать$_1$   $^{impf}$у**маз**ывать   $^{impf}$в**маз**ывать   $^{pf}$вы**маз**ать
$^{pf}$с**маз**ать   $^{pf}$в**маз**ать   $^{impf}$за**маз**ывать   $^{pf}$на**маз**ать   $^{pf}$**маз**нуть
$^{impf}$недо**маз**ывать   $^{impf}$по**маз**ывать   $^{pf}$у**маз**ать   $^{impf}$под**маз**ывать
$^{pf}$об**маз**ать   $^{pf}$до**маз**ать   $^{impf}$об**маз**ывать   $^{pf}$за**маз**ать   $^{impf}$вы**маз**ывать
$^{pf}$пере**маз**ать   $^{impf}$из**маз**ывать   $^{pf}$при**маз**ать   $^{pf}$над**маз**ать   $^{pf}$пона**маз**ать
$^{pf}$**маз**ануть   $^{impf}$про**маз**ывать   $^{impf}$от**маз**ывать   $^{impf}$при**маз**ывать
$^{pf}$раз**маз**ать   $^{pf}$недо**маз**ать   $^{impf}$раз**маз**ывать   $^{impf}$до**маз**ывать   $^{pf}$из**маз**ать
$^{pf}$пона**маз**ывать   $^{pf}$от**маз**ать   $^{pf}$про**маз**ать   $^{impf}$над**маз**ывать
$^{impf}$с**маз**ывать   $^{impf}$на**маз**ывать   $^{pf}$под**маз**ать   $^{impf}$пере**маз**ывать
$^{pf}$по**маз**ать$_2$

And now let us turn to another way of presenting these verbs. Below they are given as (purely) aspectual pairs, i.e. as pairs that consist of an imperfective and a perfective each of which has only one differential semantical element (see, e.g., Samedov, 1975; Samedov, 1978; Samedov, 1982; Samedov, 1987). One can notice that already at the visual level, the notion of aspectual pair makes it evident that there are cases when two verbs of different aspect that belong to the same derivational nest are characterized with "maximal" semantic similarity and "minimal" semantic difference. See, for instance:

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[1]  I have added some verbs to the list given in (Tikhonov, 1985, pp. 564–566) to present a fuller picture (the suggestions have been verified through the Russian National Corpus and internet). Note also that the tags 'impf' and 'pf' are for imperfective and perfective verbs, respectively.

[2]  Here and elsewhere, neither translation, nor glosses are provided when they are irrelevant and only distract the reader. As for bolding and underlining of roots, their purpose is to concentrate the reader's attention on similarities and differences of the morphemic structure of the words and, consequently, their semantics.

$^{\text{impf}}$***маз**ать* / $^{\text{pf}}$*на**маз**ать*
$^{\text{impf}}$*при**маз**ывать*/ $^{\text{pf}}$*при**маз**ать*
$^{\text{impf}}$***маз**ывать* / $^{\text{pf}}$***маз**ать*
$^{\text{impf}}$*от**маз**ывать* / $^{\text{pf}}$*от**маз**ать*
$^{\text{impf}}$*на**маз**ывать* / $^{\text{pf}}$*на**маз**ать*.

The notion of aspectual pair has been elaborated within the structuralist approach, see, among others, the earliest attempt by Jakobson (1984a; 1984b) and the one by Samedov (1975; 1978). There are still researchers who explicitly point out that "the foundation of the category of aspect is known to rest on aspectual pairs" (Potekhina, 2007). Importantly, teaching the Russian verb to foreigners is still built upon memorizing aspectual pairs, see, for example, the internet sites for teaching Russian as a foreign language (The aspect of the Russian verb: to accept and love, 2014; Russian verb drills, 2018).

As for the aspectual triplet, one can get the idea of it if they combine two aspectual pairs given above into a derivation chain. Compare, e.g., on the one hand,

$^{\text{impf}}$***маз**ать* / $^{\text{pf}}$*на**маз**ать* and $^{\text{impf}}$*на**маз**ывать* / $^{\text{pf}}$*на**маз**ать,*

and, on the other hand,

$^{\text{impf}}$***маз**ать* / $^{\text{pf}}$*на**маз**ать* / $^{\text{impf}}$*на**маз**ывать*.

The notion of the aspectual triplet has appeared in the context of Karcevski's (2004) view on the scope of aspectual pairs. Karcevski (ibid., p. 119) believed that "the formation of aspect is completely based on verbal derivation and is nothing but a particular case of verbal derivation as a whole". Consequently, when combining verbs into aspectual pairs, one should take their derivation chain into account.

From all the notions considered, this one is firmly established and gets almost no criticism. Thus, I know only one theory that characterizes the notion of the aspectual triplet as an obstruction to the study of aspect (Samedova, 2010). More to the point, the ever-increasing quantity of such imperfectives as $^{\text{impf}}$*на**маз**ывать* (the so-called secondary imperfectives) leads researchers to the conclusion that "the forming three-term category is starting to loom through the two-term one" (Shatunovskiy, 2011, p. 9), also see (Soboleva, 2018).

Finally, let us have a look at the notion of the aspectual cluster. It is introduced by Laura Janda who leads a team of experienced researchers in the Arctic University of Norway. Janda emphasizes that she is not the first one who raises "doubts about

the validity of the "pair" model" (Janda, 2007, p. 642). The scholar blames the model for ignoring the fact that most verbs exist in larger clusters of three or more aspectually related forms (ibid., p. 607). She believes that it is the notion of the aspectual cluster that has made distinguishing among perfectives possible (ibid.). The scholar (2012, p. 37) explicitly states that the notion of aspectual triplet is incompatible with the "paired" model of the Russian aspect: "The triples… pose a problem for the "paired" model of the Russian aspect [...]."

To elucidate the notion of the aspectual cluster, Janda suggests the visual metaphors of diagram[3] (Janda, 2007, p. 621) and table (Janda, Korba, 2008). See Figure 1 and Table 1, respectively:
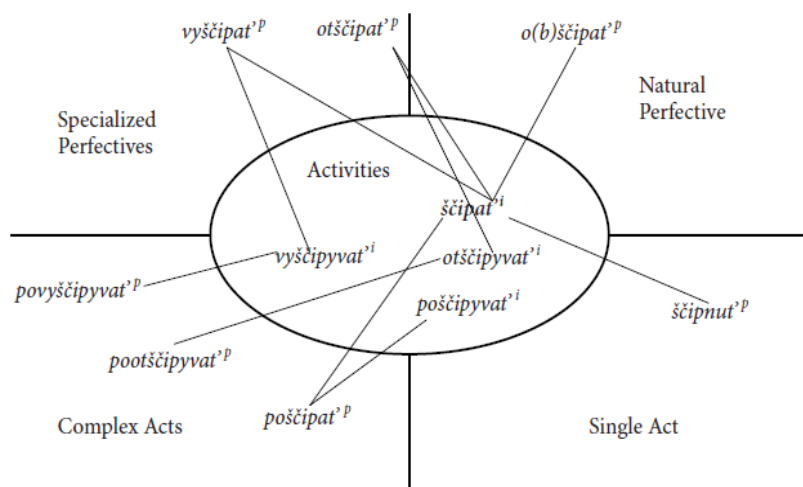


Fig. 1. The verb cluster exemplified by the verb *щипать*

Table 1. The verb cluster headed by *мазать*[4]

| Activity | Natural Perfective | Specialized Perfective | Derived Imperfective | Complex Act Perfective | Single Act Perfective |
|---|---|---|---|---|---|
| *ма**з**ать* | | | | *по**ма**зать*₂ | *ма**з**нуть* <br> *ма**з**ануть* |
| | | *в**ма**зать* | *в**ма**зывать* | | |
| | *вы**ма**зать* | | *вы**ма**зывать* | | |

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[3] About visual metaphors used in science, see (Brown, 2008).

[4] The table is our attempt to arrange the verbs of the derivational family given earlier in the aspectual cluster. When arranging, we proceeded from (Janda, Korba, 2008; Makarova, Janda, 2009; Janda, 2007, p. 621; Janda, 2015; Exploring emptiness, 2019).

| Activity | Natural Perfective | Specialized Perfective | Derived Imperfective | Complex Act Perfective | Single Act Perfective |
|---|---|---|---|---|---|
| | | до**маз**ать | до**маз**ывать | | |
| | за**маз**ать | | за**маз**ывать | | |
| | из**маз**ать | | из**маз**ывать | | |
| | | над**маз**ать | над**маз**ывать | | |
| | на**маз**ать | | на**маз**ывать | | |
| | | недо**маз**ать | недо**маз**ывать | | |
| | | об**маз**ать | об**маз**ывать | | |
| | | от**маз**ать | от**маз**ывать | | |
| | | пере**маз**ать | пере**маз**ывать | | |
| | | под**маз**ать | под**маз**ывать | | |
| | по**маз**ать$_1$ | | по**маз**ывать | | |
| | | пона**маз**ать | пона**маз**ывать | | |
| | | при**маз**ать | при**маз**ывать | | |
| | про**маз**ать | | про**маз**ывать | | |
| | | раз**маз**ать | раз**маз**ывать | | |
| | | с**маз**ать | с**маз**ывать | | |
| | | у**маз**ать | у**маз**ывать | | |

## 2. In defense of the aspectual pair

The work of Janda's team (the CLEAR research group) has "induced" publishing the near-400-page influential book with the self-evident title "Russian Aspectology: In the Defense of the Aspectual Pair" (Zaliznyak, Mikaelyan, Shmelyov, 2015). The authors qualify the notion of aspectual pair as the most important instrument for describing the linguistic competence of the native Russian speaker (ibid., p. 232). Throughout the entire book, they provide ample evidence of the value of the notion both for language studies and language pedagogy.

The linguists also rigorously analyze the model of aspectual clusters. Thus, they show that Janda and her team have failed to suggest strict criteria for differentiating between natural and specialized perfectives,[5] see, e.g., (ibid., p. 261).

Interestingly, the researchers agree that aspectual triplets are also clusters. However, they think that the existence of aspectual triplets by no means disproves

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[5] See Table 1, to get the idea of the perfectives.

the theory of aspectual pairedness. They treat triplets as an inherent constituent of the Russian aspectual system. See, e.g., (ibid., p. 233, 247, 270).

It is also interesting that their opponents declare aspectual pairs as the cornerstone of on which they build the cluster model that is aimed at classifying Russian perfectives in particular and describing the structure of the Russian aspect system in general (Janda, 2015).

In this paper, we acquaint a wider audience with the theory that regards the aspectual pair as one and only one unit of the category of aspect. The following is a concrete case through which we intend to demonstrate the explanatory potential of the theory.

## 2.1. A challenge for aspectual theories

Let us examine a paradox that remains a challenge for theories that operate with the notion of aspectual cluster of any type, including the aspectual triplet (for the detailed substantiation of the thesis, see Samedova, 2011b; Samedova, 2017). We name the puzzle Maslov's paradox because it has been revealed due to incisive observations by Yuriy S. Maslov.

Maslov's paradox is about verbs like the Russian perfective *прыгнуть* 'to make a jump'. Their meaning is traditionally described as "momentary", "instantaneous", "punctual" by proponents of various aspectual theories, see, e.g., (Karcevski, 2004, p. 123; Plungyan, 1998, p. 376). Indeed, these terms adequately reflect linguistic intuition of even an ordinary native speaker, compare *прыгнуть* (*до стола*) 'pfto get (to the table) in one jump' and *допрыгать* (*до стола*) 'pfto get (to the table) in a few jumps'. On the other hand, this description does not agree with the potential of such verbs to combine with units like *медленно* 'slowly' (Maslov, 1959, pp. 185, 227).

## 2.2. The proposed solution: four steps

**2.2.1.** The proposed perspective is illustrated by the example of the perfectives *прыгнуть* and *допрыгать*.[6] First of all, we suggest rethinking the idea that these verbs are correlated with the same imperfective *прыгать*. The opinion we substantiate below is that the homonymous imperfectives прыгать$_1$ and прыгать$_2$[7] should be differentiated as they reveal significant differences with regard to their behavior and systemic relationships. Thus, the latter has the following distinctive features:

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[6] Henceforward, see 2.1 for the translations of the verbs.

[7] Their meaning will be explicated in 2.2.2.

1. Прыгать$_2$ combines with *медленно* ('slowly') only in situations like commenting on a slowed down film (Comrie, 1976, p. 42–43): *Кот медленно прыгает$_2$ на диван* ('The cat slowly jumps on the sofa').

2. *Прыгать$_2$* is compatible with words and phrases that indicate duration only if they denote an extremely short time span, e.g., *за долю секунды* ('in a split second'): *За долю секунды он прыгает$_2$ на диван*[8] ('He jumps on the sofa in a split second').

3. *Прыгать$_2$* occurs in the constructions with phasal verbs only in situations like describing a slow motion effect, e.g.: *Смотри! Хавьер Сотомайор начал прыгать$_2$ свой рекордный прыжок!* ('Look! Javier Sotomayor started jumping his world record jump!'). *А в это мгновенье Сотомайор закончил прыгать$_2$!* ('And at this instant Sotomayor finished jumping!').

4. *Прыгать$_2$* does not correlate with the following four perfectives:
— *запрыгать*: *\*Парашютист оттолкнулся от края люка и запрыгал*[9] (\*'A parachute jumper pushed off the hatch edge and started jumping');
— *попрыгать*: *\*Парашютист оттолкнулся от края люка и попрыгал* (\*'A parachute jumper pushed off the hatch edge and jumped for a while');
— *пропрыгать*: *\*Парашютист оттолкнулся от края люка и пропрыгал 5 минут* (\*'A parachute jumper pushed off the hatch edge and jumped for 5 minutes');
— *отпрыгать*: *\*Парашютист оттолкнулся от края люка и отпрыгал* (\*'A parachute jumper pushed off the hatch edge and finished jumping').

However, *прыгать$_2$* is a correlate of *прыгнуть*: *Парашютист отталкивается от края люка и прыгает$_2$* ('A parachute jumper pushes off the hatch edge and jumps') / *Парашютист оттолкнулся от края люка и прыгнул* ('A parachute jumper pushed off the hatch edge and jumped').

5. *Прыгать$_2$* is not correlative with the members of the (purely) aspectual paradigm *допрыгивать / допрыгать*: *\*Парашютист допрыгивал / допрыгал второй прыжок* (\*'A parachute jumper was finishing / finished jumping his second jump').

However, it correlates with the members of the (purely) aspectual paradigm *допрыгивать / допрыгнуть*: *Он был такой высокий, что с лёгкостью допрыгивал / допрыгнул до потолка* ('He was so tall that he jumped to the ceiling with ease').

**2.2.2.** The described properties lead us to the conclusion that homonymous imperfectives *прыгать$_1$* and *прыгать$_2$* differ with respect to the nuclear semantic component that the verb meaning contains, namely the seme 'process'. To

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[8] The sentence has been modelled following the example in (Chertkova, 1996, p. 70).

[9] The asterisk marks unacceptable sentences.

identify the nature of the *seme*, we rely on Maslov's 1948 paper where the scholar 1) presents the first linguistic taxonomy that correlates semantic properties of a verb with properties of the event the verb refers to (Maslov, 2004, p. 90) and 2) shows why semelfactives hold a special place within the classification (ibid., pp. 84, 88–89). Thus*,* we proceed from the fact that, unlike *прыгать₁*, the verb *прыгать₂* refers to a very brief physical action (namely one jump) that takes some fraction of a second to happen. We conclude that the action is conceptualized in full accordance with this characteristic and the language "congruently" fixes the conceptualization. Thus, the verb *прыгать₂* is characterized with the seme 'process of non-standard (namely short) duration'. (Compare the idea in (Bott, 2010, p. 1): "[...] the encoding of events in language directly reflects fundamental ontological distinctions between event types".)

As one can infer from the term "process of non-standard (namely short) duration", we attribute the imperfective *прыгать₁* the seme 'process of standard duration'. This verb refers to jumps that happen unceasingly during a period of time. Note that the language does not distinguish how many jumps happen – only two or more. In any case the action is conceptualized as having the same duration as processes denoted by such verbs as *walk, dance, cook, read, sleep*, etc. (The conceptualisation is distinct, however, in one – it is perceived as discrete, as a dashed line, though it is a whole unit, see (Rothstein, 2016, p. 345) – but we will not consider it here as it is beyond the scope of the paper.) The visual metaphors we use for illustrating the postulated homonyms authentically reflects their decisive seme as to its duration. (Note that both the absolute and relative lengths of the visual metaphors are conventional.)
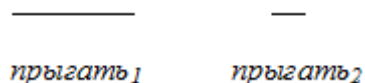
———————         ——

*прыгать₁*         *прыгать₂*

Fig. 2. The postulated homonymous imperfectives

Differentiated imperfectives are awaiting apt terms. So far we refer to them as momentary (*прыгать₂* "to jump once") and non-momentary (*прыгать₁* "to jump more than once") as a second-best choice. The signifiers are misleading in the sense that they give an impression that in language, there exist verbs that do not have the seme 'process'.

**2.2.3.** Like the momentary imperfective *прыгать₂*, the perfective *прыгнуть* has the seme 'process of short duration'. See the semantic properties of the verb:

1. It is compatible with *медленно* ('slowly') only in situations like watching a slow motion video: *Кот медленно прыгнул на диван* ('The cat slowly jumped on the sofa').

2. It is compatible with "extent" (the term introduced by Haspelmath, 1997) phrases only if they indicate extremely short duration: *За долю секунды он прыгнул на диван* ('He jumped on the sofa in a split second').

3. *Прыгнуть* demonstrates a strong semantic resemblance to the momentary *прыгать₂*. See, for instance, two sentences that are translated identically: *Брумель уже прыгал? / Брумель уже прыгнул? — Has Brumel already jumped?*

**2.2.4.** Finally, we will set forth the explanation we offer for the linguistic intuition about the perfective *прыгнуть* "ᵖᶠto jump once". Like any perfective, *прыгнуть* is characterized with the aspectual seme that has an extraordinary cognitive nature: it is a point that attracts our attention. As the attention focuses on the seme, the meaning of a perfective verb is in some way misperceived. In particular, the essential cognitive characteristic of the seme 'process', namely duration, gets concealed (see (Samedova, 2015) for more about the idea[10]). Consequently, the impression arises that a perfective verb has no seme 'process' at all.

Thus, in both *прыгнуть* and *допрыгать* our attention concentrates on the aspectual seme 'final bound' ('final point', 'final moment'). However, in *допрыгать*, it is the seme 'process of standard duration' that is backgrounded, whereas in *прыгнуть*, the overshadowed seme is 'process of short duration' (see Fig. 3). That is why the native speaker has the false idea that *прыгнуть* is "momentary", "instantaneous", "punctual".
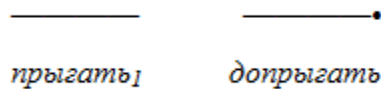


прыгать₁       допрыгать

Fig. 3. The aspectual correlates *прыгать₁ / допрыгать and прыгать₂ / прыгнуть*

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[10] For example, Karcevski describes perfectivation as "nothing else but the concentration of our attention on one concrete moment of a process, it is the concentration that excludes all other moments, hence the impression that the perfective process has no duration at all, however we will say that it is only an impression, since any process inevitably has some length" (Karcevskii, 2004, p. 125).

## 3. Expected experimental evidence

There are grounds to think that the proposed solution can be tested experimentally, see investigations of similar phenomena in (Bott, 2008; Bott, 2010; Bott, Gattnar, 2015; Bott, 2017; Brennan, Pylkkänen, 2008; Paczynski et al., 2010; Paczynski et al., 2014; Piñango et al., 2006; Yano, 2017; Klimek-Jankowska et al., 2018). Thus, experiments carried on English equivalents of the verbs considered and other so-called semelfactives show that there are significant differences in their neural processing that depend on whether the verb appears in "punctive", "explicitly iterative", or "durative" context, see, e.g., (Paczynski et al., 2010). A special hope is given by the study of processing perfective and imperfective verbs in Polish (Klimek-Jankowska et al., 2018).

The theory I follow predicts that experiments will draw a clear line between purely aspectual paradigms like *прыгать$^{Mom}$/прыгнуть*, on the one hand, and *прыгать$^{N-mom}$/запрыгать, прыгать$^{N-mom}$/попрыгать, прыгать$^{N-mom}$/ пропрыгать некоторое время, прыгать$^{N-mom}$/отпрыгать*, on the other hand, with regard to the critical cognitive property their members possess.

Of special interest is contrastive examination of contexts where the *прыгать$^{Mom}$* and *прыгать$^{N-mom}$* can be unequivocally identified with contexts that are ambiguous (e.g., *Ты видел, когда он прыгал?* 'Did you see him jumping?').

## 4. Two words about the theory behind the suggested resolution[11]

The theory is distinct for the consistent application of the classical structuralist method of opposition. This approach has enabled its founder to reveal the logical consequence of employing the notion of aspectual triplet. The thesis that in Russian there are three-member chains that consist of a simple imperfective, perfective, and secondary imperfective (e.g., *мазать – намазать – намазывать*) leads to the conclusion that in the language there are neither prefixal nor suffixal purely aspectual paradigms (Samedov, 1971; Samedov, 1982; Samedov, 1987). This conclusion, in its turn, means that the category of aspect is not a grammatical phenomenon.

Thus, according to the theory, indeed, the notion of aspectual triplet is a threat to the notion of purely aspectual pair. The solution is to replace the traditional

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[11] For more information about the theory, the foreign reader can refer to (Samedova, 2011a-b; Samedova, 2013a-b; Samedova, 2015; Samedova, 2018a-b; Samedova, 2019; Samedova, 2020).

opinion with the consistently structuralist perspective that postulates purely aspectual paradigms perfective members of which are homonyms that differ semantically/structurally: *мазать / намазать₁ и намазывать / намазать₂*.

## 5. Conclusion

The consistently structuralist analysis of perfectives like *прыгнуть* draws linguists' attention to the non-traditional view on the notion of the aspectual triplet. The resolution of Maslov's paradox lets us state that building the explanatory and predictive model of the Russian aspect becomes possible if to recognise that the category of aspect has the only one unit and the unit is the two-term (binary) aspectual paradigm. We suppose that results described in (Samedova, 2011a; Samedova, 2013a-b; Samedova, 2015; Samedova, 2016; Samedova, 2018a-b; Samedova, 2019; Samedova, 2020) also allow thinking that the theory we work within can effectively respond to challenges posed by Slavic-type aspect.

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# Categorization of directional motion verbs

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**Abstract**

This study presents a proposal of categorization of directional motion verbs, i.e. ones whose lexical semantics specifies a direction of motion, even without an overt directional complementation. The categorization proposed here includes (1) source/goal verbs, which are used to refer to bounded paths; (2) unbounded path verbs, which can be divided into two subgroups of upward/downward verbs and forward/backward verbs; (3) route verbs, which include *cross* and *pass*; (4) constant verbs, which again can be divided into two subgroups of chase verbs and accompany verbs; (5) deictic verbs, namely *come* and *go*, which are approached as a separate class. The proposal originates from previous studies conducted to this end in semantics, and is meant to encourage discussion on further advancement in this area of linguistic studies.

**Key words:** categorization, motion events, motion verbs, lexical semantics, directionality

## 1. Introduction

Every language has a system of semantic devices used to encode motion as a basic aspect of human experience. The idea of the primacy of movement in apprehension of the surrounding reality can be traced back to Aristotle's insight that motion is the fundamental principle of nature: "Nature is a principle of motion and change … We must therefore see that we understand what motion is; for if it were unknown, nature too would be unknown." (Aristotle, 350BC/1995, *Physics*, pp. 200b11–14). According to this view, to understand the nature of the world we must understand the dynamic nature of surrounding events, by which we come to understand the sensible form of imperceptible, immaterial concepts, such as *inside–outside*, *new–old*, *close–distant*, etc., arising from consequential relationships (see Sheets-Johnstone, 2011 for a discussion on how movement serves as the foundation of our knowledge of the world).

In his *Principles of Philosophy*, Descartes proposes to define motion as "simply the action by which a body travels from one place to another" (Descartes,

1644/1985, Part II, 24). Descartes (1644/1985, Part II) argues that, in one sense, motion can be interpreted as "change of place", which is relative to an arbitrary reference body (*Principles,* Part II, 13). Another sense of motion is "the ordinary sense" (*Principles,* Part II, 24), which stems from the rules of ordinary speech, in which motion is attributed to bodies whose movement is caused by some action, without reference to a change of location. For instance, a person sitting motionless on board of a ship which is leaving port is said to be at rest in the ordinary sense, because he/she performs no action. However, from the relative perspective, the person is in motion because at each point during the departure the person gets farther away from the shore.

This *distinction*, systematized in linguistics by Tesnière (1959/2015, pp. 311–313), allows for a disassociation of *dislocation* from *movement,* which provides the conceptual ground for distinguishing two basic classes of motion verbs. One includes the verbs whose lexical semantics conflates a path of motion between one place and another, which implies *directionality*. The other class includes the verbs whose lexical semantics conflates the *manner of movement* understood as a dynamic activity which does not entail a change of location. This distinction has been regarded as a basic dividing line between verbs of motion in all major approaches to their lexical semantics. This study presents a proposal of categorization of directional motion verbs, i.e. ones whose lexical semantics specifies a direction of motion, even without an overt directional complementation (Jackendoff, 1983; Levin, 1993; Talmy, 1985, 2000). The proposal originates from previous studies conducted to this end in semantics (Geuder & Weisgerber, 2008; Rappaport Hovav & Levin, 2010; Zwarts, 2008), and is meant to serve as a springboard for further advancement in this area, especially in corpus-based linguistic studies.

## 2. Basic semantics of motion

A basic conceptualization of an object in motion, without regard to the characteristics of the object or the details of the trajectory it follows, is PATH, which was put by Lakoff (1987, p. 267) among basic *kinesthetic* image schemas (cf. Jackendoff, 1983, Ch. 9). Lakoff (1987) points out that the basic experience of motion can be described more thoroughly with a SOURCE–PATH–GOAL schema, which reflects that "Every time we move anywhere there is a place we start from, a place we wind up at, a sequence of contiguous locations connecting the starting and ending points, and a direction" (Lakoff, 1987, p. 275). This image schema includes four structural elements: (1) a SOURCE, i.e. the starting point; (2) a GOAL,

i.e. the ending point, (3) a PATH, i.e. a sequence of contiguous locations connecting the source and the goal; (4) a DIRECTION going toward the destination.

Lakoff & Núñez (2000, pp. 37–38) add that the basic structure of the SOURCE–PATH–GOAL image schema manifests an inherent logic used in mathematics and geometry to discuss, for example, lines "meeting at a point" or to describe the graph of a function as "reaching a minimum at zero". However, they distinguish a broader set of elements expanding beyond this basic schema: (1) a *trajector* that moves; (2) a *source* location; (3) a *goal*, i.e. an intended destination of the trajector; (4) a *route* from the source to the goal; (5) the *actual trajectory* of motion; (6) the *position of the trajector* at a given time; (7) the *direction* of the trajector at that time; (8) the *actual final location* of the trajector (which may or may not be the intended destination).

Talmy (1985, 2000, p. 25) sketches a prototypical motion event as the situation that "consists of one object (*Figure*) moving or located with respect to another object (the reference object or *Ground*)". The basic schema of *Motion event* has four core components, which apart from the above-mentioned Figure and Ground, include also Motion and Path. The *Path* is a path followed or site occupied by the Figure object with respect to the Ground. The component of *Motion* "refers to the presence per se of motion or locatedness in the event" (Talmy, 2000, p. 25), despite the fact the component in the latter motion as such does not occur. Talmy (2000, pp. 35–36) distinguishes two types of motion found in motion events: *translational motion*, in which "an object's basic location shifts from one point to another in space"; and *self-contained motion*, in which "an object keeps its same, or 'average' location", e.g. oscillation, rotation, expansion, contraction, etc., or rest.

Moreover, Talmy (1985, 2000, p. 26) distinguishes an associated *Co-event*: "a motion event can be associated with an external Co-event that most often bears the relation of Manner or of Cause to it". Thus, besides the above-mentioned four internal components of the core schema of motion, the *Manner* component reflects the manner in which the motion takes place, and the *Cause* is the cause of its occurrence. Talmy (1985, pp. 139–140) explains that the assessment of whether Manner or Cause is conflated in a verb depends on the verb's basic reference to what the Figure does or to what the Agent/Instrument does. For instance, "Tom pushed the keg" expresses Cause because the verb refers to what the Agent (Tom) did. On the other hand "Tom rolled the keg" expresses Manner since the verb basically refers to what the Figure (keg) did.

Mani and Pustejovsky (2012), following largely Talmy's (1985, 2000, Part 1) work on motion semantics, assume that spatial expressions of motion can be decomposed into distinct semantic elements, which include: (a) the event of MOTION; (b) the FIGURE that is undergoing movement; (c) the PATH or the region

traversed; (d) the GROUND against which the movement occurs; (e) the MANNER of movement; (f) the MEDIUM involved. Apart from these semantic components, Mani and Pustejovsky (2012) see *argument structure, semantic role selection,* and *event structure* as essential aspects of meaning required for the representation of lexical information about motion (see Carlson, 1984; Gruber, 1976). The semantic components of movement are encoded in various ways using different lexicalization patterns.

## 3. Lexicalization patterns of motion events

By examining the systematic relations between different aspects of meaning and surface forms of linguistic expression across languages, Talmy (1985, 1991, 2000) demonstrates how the semantic structure of linguistic representations reflects the conceptual structure in the domain of motion. Linguistic elements taken into consideration include *open class* categories, such as verbs of motion, and *closed class* categories, such as prepositions acting as satellites. The *satellite* is defined by Talmy (2000, p. 102) as "the grammatical category of any constituent other than noun-phrase or prepositional-phrase complement that are in a sister relation to the verb root", e.g. move *away*, move *behind*, move *between*, move *up*, etc.

Talmy (1985, 2000, Part 1) observes that different languages conflate the semantic components of the Motion event in different ways. He identifies main typological patterns of the mappings between the meaning and form for the expression of motion events. The *Motion+Co-event* pattern (Talmy, 2000, pp. 27–29) can be illustrated with the sentences such as "The rock rolled down the hill" (Motion+Manner), or "The napkin blew off the table" (Motion+Cause). It is characteristic of the Indo-European family except Romance languages, as well as Finno-Ugric, Chinese, and others. The *Motion+Path* pattern (Talmy, 2000, pp. 49–53) can be illustrated with the following sentences from Spanish: "La botella entró a la cueva (flotando)" [Lit. The bottle MOVED-in to the cave (floating), i.e. "The bottle floated into the cave"], and "La botella salió a la cueva (flotando)" [Lit. The bottle MOVED-out to the cave (floating), i.e. "The bottle floated out of the cave"]. This pattern is characteristic of Romance and Semitic families of languages, as well as Japanese, Korean, Polynesian, Turkish, and others.

On the basis of the patterns used for mapping the semantic components of the core schema (particularly Path) and co-events (Manner and Cause) onto the surface forms, Talmy (1991, 2000, Part 1) proposes to distinguish two main categories of languages. The languages that characteristically map the core schema into the verb are referred to as *Verb-framed languages* (V-languages).

They tend to conflate Motion+Path in verbs, while a co-event of Manner or Cause is typically encoded with adverbials and gerunds, or just left to inference. The languages that characteristically map the core schema onto the satellite are referred to as *Satellite-framed languages* (S-languages). Generally, S-languages, including English, tend to conflate Motion+Manner in verb roots whereas the Path is encoded with satellites and prepositional phrases.

Filipović (2007) demonstrates how studying lexicalization patterns provides insights into how speakers of different languages from the same group organize experiential data in their accounts of events. By comparing two S-languages, English and Serbo-Croatian, she demonstrates that speakers of these two languages use two different algorithms for the processing of sentences expressing motion events. More recent studies (e.g. Beavers, Levin, & Wei Tham, 2010; Sampaio, Sinha, & Sinha, 2009) suggest elaboration of Talmy's classification to include additional language types. Despite such criticisms, Talmy's typological framework still stands as a valid contribution to our understanding of the processes of form–meaning connections for the expression of motion events in cross-linguistic contexts (see Goschler & Stefanowitsch, 2013 for an edited collection of studies).

## 4. Directional verbs of motion

In a series of publications, Levin and Rappaport Hovav (1992, 2013; Rappaport Hovav & Levin, 2010) argue for the hypothesis that verb meanings can be systematically categorized as *manner* or *result*, with *directionality* counting as the result for motion verbs. They assume that a core meaning of a verb contains a single semantic component of manner or result, which they term *manner/ result complementarity*. As a result of the complementary distribution, a given verb should be classified as either a manner verb or as a result verb, but not both (Rappaport Hovav & Levin, 2010, p. 22). However, the discussion on semantic role restrictions in the syntax-semantics interface goes back, at least, to Chomsky's (1981, p. 36) *theta-criterion* (see Jackendoff, 1985).

According to Levin and Rappaport Hovav (2013, 2014; Rappaport Hovav & Levin, 2010), what is essential for this distinction to hold is that *lexicalized meaning*, i.e. a verb's core meaning, must be distinguished from *contextual meaning*. "Crucially, a verb's lexicalized meaning is to be distinguished from additional facets of meaning that can be inferred from a particular use of that verb in context and from the choice of noun phrases serving as arguments of the verb" (Levin & Rappaport Hovav, 2013, p. 49). Due to conventions of carrying out certain actions, a verb tends to be associated with a variety of co-occurring

properties. Some verbs, such as *sweep*, lexicalize manners, but may be used to talk about events that are often associated with prototypical results (see *implied fulfillment verbs* in Talmy, 2000, pp. 265–267). In a parallel fashion, verbs such as *leave* lexicalize direction, but may be used to talk about results brought about in a conventionally associated manner. Levin and Rappaport Hovav (2014, p. 339) emphasize that not all these co-occurring properties are lexically entailed by the meaning of the verb itself and may not hold of every use of the verb (see Goldberg, 2010 for a criticism).

In order to provide a semantic explication for the notions of manner and result, Rappaport Hovav & Levin (2006, 2010, pp. 28–33) propose that the directed motion verbs do not have to be telic, however, they must specify *scalar changes*. A scale is a set of degrees or points ordered on a particular dimension. The dimension represents an attribute of an argument of the verb and the degrees indicate the possible values of the attribute. A scalar change involves a change in the value of one of scalar-valued attributes. With directed motion verbs, the scale is composed of a set of contiguous points that together constitute the path of motion. The path extends in a particular direction, which defines the ordering relation.

In English, the directed motion verbs can be subdivided according to the way the ordering relation is defined. In one type of verbs, including *ascend*, *descend*, *fall*, and *rise*, the direction of motion is fully lexicalized by the verb with reference to the pull of gravity. With verbs *come* and *go*, the direction of motion is determined deictically according to whether they get closer to or further on the path from the deictic centre. In another type of motion verbs, which includes *advance, arrive, depart, enter, exit, leave, reach, recede,* and *return,* the direction is determined with respect to an external reference object, the semantic ground. Depending on the meaning of individual verbs, the points on the path are ordered according to whether they are closer to or further away from this object.

Rappaport Hovav & Levin (2010, p. 30) add that the claim that the directed motion verbs are scalar finds support in the structure of their scales. They essentially fall into two classes: those associated with two-point scales and those associated with multiple-point scales (see Beavers, 2008). Two-point scales have only two values, i.e. they basically encode having or not having a particular property. The directed motion verbs with an associated two-point scale are *arrive*, *depart*, *enter*, and *exit*. On the other hand, multiple-point scales have many values. The class of directed motion verbs with multiple-point scales is used to describe gradual traversals of the path. It includes *advance*, *descend*, *fall*, *recede*, and *rise*. The multiple-point scales can again be divided into two types: those with closed scales and those with open scales. In the directed motion domain, this property distinguishes between verbs that lexicalize a bounded path, such as *come* and *return*, and verbs that lexicalize an unbounded path, such as *descend* and *rise* (see Rappaport Hovav & Levin, 2010 for further discussion).

Levin and Rappaport Hovav (2013) analyze in detail certain English verbs that apparently violate the manner/result complementarity. In the domain of motion, a widely discussed counterexample to manner/result as two separate roots is the English verb *climb* (e.g. Fillmore, 1982, p. 32; Jackendoff, 1985). One may assume that in sentences such as "John climbed the tree", the verb expresses both manner (clambering) and direction (upward). However, with reference to animate entities the opposite direction can be specified, e.g. "John climbed down the mountain", which shows that the verb can be used to lexicalize only the manner of motion. Moreover, with reference to inanimate entities, the verb is used only to lexicalize the direction upward, e.g. "The elevator/temperature climbed", but not downward, e.g.? "The elevator/temperature climbed down", which indicates that the verb can be used to lexicalize only the direction of motion. Levin and Rappaport Hovav (2013) argue that once the interpretation of different uses is clearly delineated, it becomes clear that the verb *climb* manifests a certain degree of polysemy, having both manner and result senses. The upward direction is usually inferred due to the default direction of its lexicalized manner.

In her earlier work on *English Verb Classes and Alternations*, Levin (1993) discusses directional verbs of motion under the label of *verbs of inherently directed motion*. She includes the following verbs in this class: *advance*, *arrive*, *ascend*, *climb*, *come*, *cross*, *depart*, *descend*, *enter*, *escape*, *exit*, *fall*, *flee*, *go*, *leave*, *plunge*, *recede*, *return*, *rise*, and *tumble*. She notes that some verbs included in the list, most notably *climb* and *cross,* diverge in some respects from the other members of this class (Levin, 1993, p. 264). She points out that meaning of the verbs of inherently directed motion specifies the direction of motion, even in the absence of an overt directional complement. While for some verbs in this class the specification of direction is deictic, for others it is specified in non-deictic terms. Levin emphasizes that none of the verbs in this class specifies the manner of motion. They differ as to how they can express the goal, source, or path of motion. Depending on the given verb, these properties may be expressed via a prepositional phrase, as a direct object, or both (Levin, 1993, p. 264).

Apart from this generic class, Levin distinguishes additionally three more specific classes of verbs related to directionality. The class of *leave verbs* (Levin, 1993, Ch. 51.2) includes: *abandon*, *desert*, and *leave*. The verbs in this class indicate motion away from a location without specifying the manner of motion. Because the direct object of these verbs indicates the location that has been left, it cannot be expressed in the prepositional phrase (Levin, 1993, p. 264).The class of *chase verbs* (Levin, 1993, Ch. 51.6) includes: *chase*, *follow*, *pursue*, *shadow*, *tail*, *track*, and *trail*. These verbs are typically transitive, with the chaser as subject and the person being chased as object. Some of them allow an intransitive use, with the chaser as subject and a prepositional phrase headed by *after* specifying the object

of pursuit (Levin, 1993, p. 270). The class of *accompany verbs* (Levin, 1993, Ch. 51.7) includes: *accompany*, *conduct*, *escort*, *guide*, *lead*, and *shepherd*. They relate to one person taking another person from one place to another. These verbs can be differentiated from one another by the relation holding between the two participants (Levin, 1993, p. 270).

Starting from the observation that direction plays an important role in the semantics of both prepositions and verbs, Zwarts (2008) suggests broad parallels between the realizations of directionality in these parts of speech. After distinguishing two major categories of locative and directional prepositions, he follows Jackendoff (1983) to point out that directional prepositions largely correspond to Paths. With reference to spatial and aspectual dimensions expressed by prepositions in spatial expressions, Zwarts (2008, p. 84) proposes to distinguish seven classes of directional prepositions. (1) *Source prepositions* impose a locative condition on the initial part of the path, e.g. *from*; (2) *Goal prepositions* indicate the opposite pattern, putting emphasis on the final part of the path, e.g. *into*; (3) *Route prepositions* impose a locative condition on a middle part of the path, e.g. *past*, *through*, *across*, and *over*; (4) *Comparative prepositions* involve a spatial ordering of the extremes of the path, with *towards* referring to paths that have their endpoint closer to the reference object than their starting point, and *away from* referring to paths going further and further away from the starting point; (5) *Constant prepositions* impose a stable locative condition on all the points of the path, e.g. *through* or *along*; (6) *Geometric prepositions* typically involve a circular path enclosing an object on all sides, although the relation is not always so simple, e.g. *around*; (7) *Periodic prepositions* refer to a repeating pattern, e.g. *around and around*, *up and down*, *through and through*, etc. Zwarts suggests that the characteristics of paths can be extended to the semantics of dynamic verbs, giving a partial typology of "event shapes" as places and paths in the conceptual space of events.

Geuder & Weisgerber (2008) propose to divide verbs of motion specifying a particular trajectory or contour in a way parallel to directional prepositions. Their proposal allows to distinguish the following types of directional verbs of motion: (1) *Goal* verbs relate to the end point on the path of motion, e.g. *enter*, *arrive*; (2) *Source* verbs relate to the starting point on the path of motion, e.g. *exit*, *depart*; (3) *Route* verbs relate to intermediate points on the path of motion, e.g. *cross* and *pass*; (4) *Comparative* verbs relate to movement closer to/further from a reference object, e.g. *approach*; (5) *Constant* verbs relate to the same average relation of distance between objects in motion, e.g. *follow*, (6) *Holistic* verbs describe a geometric shape of the described motion, e.g. *curl*; (7) *Periodic* verbs describe a recurring pattern in the described motion, e.g. *zigzag*. Please note that in English the holistic and periodic verbs appear to belong to the category of manner, rather than directional verbs of motion.

## 5. Categorization of directional verbs of motion

The categorization of motion verbs proposed in this paper is based on the above-reviewed classifications proposed by Geuder and Weisgerber (2008), Jackendoff (1983); Levin, (1993), Rappaport Hovav and Levin (2010), and Zwarts (2008), with the help of WordNet (Fellbaum, 2017) and VerbNet (Palmer, Bonial, & Hwang, 2017).

The first group of directional motion verbs distinguished here includes *source/goal verbs*, understood as scalar verbs associated with a *two-point scale* (Rappaport Hovav & Levin, 2010). The meaning of these verbs inherently specifies the direction of motion, even in the absence of an overt directional complement (Levin, 1993, Ch. 51.1). They can be divided further into *source verbs* (depart, exit, leave) and *goal verbs* (arrive, enter, reach). They refer to bounded paths which focus, respectively, on the starting point or the destination of the path of motion (Fillmore, 1983; Geuder & Weisgerber, 2008; Zwarts, 2008). Additionally, the verb *return,* which lexicalizes a bounded path whose goal goes back to the starting point, is also included in this group. These verbs indicate that motion from/to a location takes place without specifying the manner of motion. For these verbs the direction of motion is specified in non-deictic terms. Prototypical examples of these verbs in English include: *arrive*, *depart*, *enter*, *exit*, *leave*, *reach*, and *return*.

The second group of directional motion verbs includes *unbounded path verbs*, which lexicalize unbounded paths. They can be approached as scalar verbs with a *multiple-point scale* (Rappaport Hovav & Levin, 2010). Prototypically, they refer to gradual traversals but do not specify the manner of motion, although *climb* is sometimes viewed as lexicalizing both manner and path (Fillmore, 1982, p. 32; Jackendoff, 1985; Levin & Rappaport Hovav, 2013). These verbs can be divided into two subclasses. The first subclass refers to the vertical plane, indicating either the direction *upward* (ascend, climb, rise) or *downward* (descend, drop, fall, dive, plunge, tumble). These verbs specify the direction of motion in absolute terms, with or against the pull of gravity. Prototypical examples of these verbs in English are: *ascend*, *climb*, *descend*, *dive*, *drop*, *fall*, *plunge*, *rise*, and *tumble*. The other group of the unbounded path verbs distinguished here relates to a gradual extension on the horizontal plane. Their semantics specifies either the direction *forward* (advance, proceed) or *backward* (retreat, recede, withdraw). Additionally, the comparative verb *approach*, which refers to a spatial path extending towards a reference object (Geuder & Weisgerber, 2008; Zwarts, 2008), is also included in this group. In contrast with the *upward/downward* verbs, for the *forward/backward* verbs, the direction of motion is specified in relative terms. Prototypical examples of these verbs in English include: *advance*, *approach*, *proceed*, *retreat*, *recede*, and *withdraw*.

The third group of directional motion verbs proposed to be distinguished includes *route verbs*, namely *cross* and *pass*, which relate to intermediate points on the path of motion (Geuder & Weisgerber, 2008; Jackendoff, 1983, p. 165; Zwarts, 2008). They tend to be ascribed to the category of directional motion verbs (e.g. Levin, 1993). However, as pointed out by Rappaport Hovav and Levin (2010, p. 30), they are not verbs of scalar change. Although they specify motion along a path defined by a particular axis, the direction of motion along the path is not lexicalized by the verb, i.e. they do not impose an ordering relation on the path. However, they are not manner verbs, either, which suggests that they belong to a separate group.

The fourth group of directional motion verbs that can be distinguished includes the verbs labeled by Geuder & Weisgerber (2008) as *constant verbs*. They express an approximately stable spatial relation between two moving objects without specifying the manner of motion. They can be divided into two classes. The first subclass includes *chase verbs* (Levin, 1993, Ch. 51.6), which are typically transitive, with the chaser as the subject and the object of pursuit as the direct object. Prototypical examples of these verbs in English include: *follow*, *pursue*, *shadow*, *tail*, *track*, and *trail*. The other subclass of the constant verbs includes *accompany verbs* (Levin, 1993, Ch. 51.7). In actual motion expressions, they relate to one person accompanying another from place to place. They can be differentiated from one another by the nature of the relation between the two participants, but not by the manner of motion. Prototypical examples of these verbs in English include: *accompany*, *conduct*, *convoy*, *escort*, *guide*, *lead*, *shepherd*, and *usher*.

The final group of directional verbs proposed here includes *deictic verbs*. This term is usually applied in linguistics to a small set of verbs, whose interpretation relies on the location relative to participants of the communicative act. In English this set includes two motion verbs *come* and *go*. Interpreting deictic motion verbs involves perspective-taking, which differentiates them from other motion verbs. According to Talmy (1985, 2000), deictic motion verbs belong to Path-conflating verbs. He defines them in rather generic terms: "the deictic component of Path typically has only the two member notions 'toward the speaker' and 'in a direction other than the speaker'" (Talmy, 2000, p. 56).

The use of the deictic motion verbs has been a popular topic in linguistic studies. Fillmore (1982, 1983) demonstrates the complexity of *coming and going* in terms of the deictic parameters of person, place and time. He proposes a set of "appropriateness conditions" for the use of *come* and *go* in English. He points out that although their uses are largely overlapping, there is a certain area of uses in which only *go* is allowed, and a relatively more restricted area of uses in which only *come* can be used. Goddard (1997) analyzes the semantics of coming and going using the Natural Semantic Metalanguage (NSM) approach. His analysis essentially confirms that the lexical semantics of *come* and *go* are compatible with the appropriateness

conditions proposed by Fillmore. Rauh (1981) demonstrates that in German, the deictic feature of the verbs *kommen* (come) and *gehen* (go) can be neutralized, if an expression contains an adverbial indicating the source/goal of movement. Wilkins and Hill (1995) question the assumption that *come* and *go* manifest a universal deictic opposition. They argue that what is universally recognized as *go* is not an inherently deictic expression. However, due to systemic opposition with *come*, it often takes on a deictic interpretation through pragmatic attribution.

## 6. Conclusions

A fully systematic classification of motion verbs has not been worked out in linguistics. One reason that stands behind this situation is the difficulty of discerning motion verbs as a separate class. Although Miller and Johnson-Laird (1976, pp. 526–531) suggest that English has a formally identifiable semantic field of motion verbs, they admit that the criteria available for distinguishing motion verbs generate numerous borderline cases and gray areas. On the basis of morphosyntactic considerations, Levin and Rappaport Hovav (1992) conclude that approaching motion verbs as constituting a single formally discernible natural class in English is a wrong assumption. The assumption that motion verbs are the "purest and most prototypical forms" of verbs (Miller & Johnson-Laird, 1976, p. 527), implies that other verbs inherit some conceptual and formal properties from them, which makes conceptual/formal distinctions difficult to draw precisely (Wilkins & Hill, 1995, p. 248).

The division proposed in this paper is an attempt to advance the categorization of directional motion verbs into a number of systematic classes. The proposal does not aspire to be fully exhaustive, but is meant to accumulate feedback and encourage further discussion. It was originally worked out for the purpose of studying directional motion verbs used in the expressions of fictive motion (Waliński, 2018). Since it served its original purpose reasonably well, it can hopefully be employed for other corpus-based studies on motion semantics.

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