Where semiosis begins when reading a text: On event perception¹

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Abstract. In this paper, I report on a set of data which, so I believe, give evidence of current experience as being conceptualized on the basis of conceptual structures that originate from different time scales. The data are obtained by a procedure that shows features of think-aloud protocols and eye-tracking research. The text which is read is a narrative, an excerpt from Saint-Exupéry's Le Petit Prince. Five groups of readers, at different times and locations, were presented with the text in five different languages. They underlined the words for which something came to mind and jotted down responses in the margin of the one-page long text ad lib, in a time frame of ten minutes. Their responses, expressed by pictorial and written signs, testify to ways of perceiving elements in scenes and scenarios, in short, elements of the environment with which the readers interact at the moment of reading. When the jotted responses are correlated with the segmental positions in which they occur, regular patterns emerge, revealed by significant differences in response frequencies. The semantic properties of the linguistic material in these segmental positions signal the perceptual presence of (image-)schematic figure-ground relations that inhere in basic event structures. Different layers of semiosis, originating from different time scales, thus appear to simultaneously contribute to current experience, the latter being possible because of the expanded consciousness of the organism that discovered how to turn in on itself.

Keywords: conceptual structures – figure ground constellations – underlying and supervening upon linguistic semantics

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There is one thing on which all observers of the appearance of a running boy will agree [...] a figure and [...] some kind of background. (Whorf 2012[1940]: 208)

1. Introduction

This paper reports on data consisting of responses to a one-page long text, an excerpt from Saint-Exupéry's *Le Petit Prince*, which those participating in this study read in a time frame of ten minutes. The excerpt depicts a sub-episode in the novel: a pilot meets the little prince in a desert and, being thirsty, the two of them look for water and find a well.

At this point a bit of context in relation to the elicitation event might be in order: I was a teacher of genre and text analysis when student visitors had come to see me on a rainy afternoon in Hong Kong. I suggested a variation of a 'tell-me-what' game, and the students had brought board games with them. I had prepared several one-page long copies of an excerpt from Saint-Exupéry's novel and presented them to the students. I asked them to underscore words at which something came to their mind and to 'jot down' what it was that came to mind. The student visitors followed my suggestions, read through the text, and jotted down their responses in the margins. Their scribbles, i.e. jottings, revealed systematic positionings at particular semantic points, thus forming a pattern. Since patterns normally signal something, it seemed to me that the students had given evidence of 'something'.

The 'jot-down-what-comes-to-mind' format became the model format of the ensuing elicitation events.² In the time that followed, five different groups of students read the same one-page long excerpt of Saint-Exupéry's *Le Petit Prince* at different times and in different locations, each time in a different language (English, Chinese, German, Russian, Turkish). The excerpt is taken from the beginning of Chapter XXV that describes how a long search for water is rewarded with the discovery of a well in a desert.

In all elicitation events, the students were asked to underscore elements of the text *ad lib* and jot down 'what comes to mind' in a time frame of ten minutes. Their jottings reveal a dual role to the observer. The student-readers map out scenes and scenarios of current experience in written and pictorial formats, using textual cues as metonymical keys. The readers are fully aware of this process. They are not aware

² I worked also with genres other than the narrative genre (Bruche-Schulz 2005).

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of the fact that those very responses form regular patterns by being positioned at certain points. A systematic pattern of the response numbers is observed across all five groups, and I will show how this pattern relates to the experience of figure-ground constellations that underly any event (and state).

I divided the text into segments, whose core is a verb. In doing so, I draw on descriptions of the semantics of situation types (Smith 1991: 65–87), and states and events (Kearns 2000; Givón 2001: 106, 287–297). A state reading, besides being denoted by state verbs, may also be caused by an iterative unbounded process of (repetitive) events. If so, a segment may be identified by more than one verb. Altogether I have worked on fourty-five segments, divided into ten segmental groups. These segments reflect a series of sub-events. For lack of space this paper will deal only with the first four groups (Segments 1–14) in detail. In order to illustrate the presentation of the text and the data (the response pattern), I present already at this point the text of the first four segments in Table 1, and the pattern of the responses to s[egments1–4] in Figure 1 below.

Table 1. Segments 1–4.

English	Chinese	German	Russian	Turkish
2.a) "Men",		2.a) "Die Leute",	2.а) – Люди	2.a) – İnsanlar,
1. said the little prince,	1. 小王子說: [little prince say]	1. sagte der kleine Prinz,		1. dedi Küçük Prens.
2.b) "set out on their way in express trains,	2. 人們 ['men'] 只顧著匆匆 忙忙擠到快 車裡,	2.b) "schieben sich in die Schnellzüge,	2.b) забираются в скорые поезда,	2.b) hızlı trenlere doluşuyorlar;
3. but they do not know	3. 卻 不曉得	3. aber sie wissen gar nicht,	3. но они уже сами не понимают,	4. ama ne aradıklanını
4. what they are looking for.	4. 究竟 要 找 什麼,	4. wohin sie fahren wollen.	4. чего ищут, –	3. bildikleri yok.
			1. сказал Маленький принц.	

The kind of data that I will discuss are illustrated in Table 1 and Figure 1 above. In brief, there are singular responses that add up to significant differences in frequency at segments that express a particular semantic value. The student respondents do not know that their responses occur at semantically distinctive points. That means there is a phenomenon that reveals a significance both beyond the immediate category membership of the responses and their relation to the time-bound reality of the giving of the

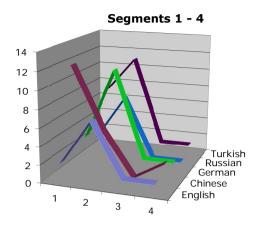


Figure 1. Response patterns at s[egments] 1–4.

responses. There is thus a semiotic significance that underlies and supervenes upon of the overt responses.

The purpose of the following section is to look into the main assumptions and respective hypotheses of such studies that seem to share the objective to get to know what enters 'the mind' when persons read a text (or view a picture).

2. Background assumptions and working hypotheses: elicitation methods

The design of the methods used in think-aloud protocols (Pressley, Afflerbach 1995), and eye-tracking combined with a spoken picture description (Holšánová 2008) appear to be related to the method used. Bartlett (1995[1932]) in his studies on 'remembering' uses a method similar to that of think-aloud protocols. In his studies, viewers of pictures and readers of stories reported on the text or the picture(s) they were presented with. The subjects were shown the same stories and pictures several times, in intervals of hours, days, months, and even years later. Bartlett's objective was to explore how the subjects' reports changed over time.

2.1. Reading research: Think-aloud protocols

Pressley and Afflerbach (1995: 1) see themselves as part of a long tradition: "The use of think-aloud data in reading has occurred throughout the 20th century [...]." Their focus is on performance. The performance of "poor" readers is of a lower quality than that of good readers in all reading tasks. Good readers are able to judge the degrees of difficulty posed by a text.

[They] appear to know when to call it "quits", upon exhausting efforts, strategies, and patience. And although attributions for not attaining a goal may vary (e.g. "This author lacks talent", "This is horrible writing", "I'm not doing so well"), expert readers appear relatively unscathed by their unsuccessful (or only partially successful) encounters with text. (Pressley, Afflerbach 1995: 42)

Good readers are said to be also *effective* readers. The example below shows how a respondent reports ('aloud') on getting prepared for a "quiz".

I stopped and read [the text] very, very slowly and then tried to develop what I thought was the meaning. Then I wrote it down as a question and looked for the answer. I underlined the first half, which was already explained in prior sections. Then I circled the second part of it [...]. (Pressley and Afflerbach 1995: 60, citing from a think-aloud study by Wade)

In sum, Pressley and Afflerbach are essentially concerned with finding out all about expert reading and the full array of processes that constitute skilled reading. In spite of acknowledging right from the start, with reference to Plato and Aristotle, that the urge to obtain evidence of the thought process is an old one, the authors basically look for categories that can be used for distinguishing "good" and "bad" readers. As may be expected, the think-aloud method is criticized for its focus on "metacognitive reports" (Richardson *et al.* 2006: 324).³ – Current work in the think-aloud tradition seems to pursue applied research, being concerned with the evaluation of the quality of performance, such as in translation projects, the testing of bilingual proficiency, website evaluations, or assessment of professional ('collegial') profiles (e.g. Erlandsson, Jansson 2013; Elling *et al.* 2012).

2.2. Eye tracking combined with spoken picture description

Hólšánová assumes that there is an advantage in freeing the process from the metacognitive tasks known from think aloud, or read aloud protocols. In her view, subjects should not be asked "to externalise their mental processes" (Hólšánová 2008: 87). She examines the temporal and semantic correspondence between the verbal and the visual data streams. Eye movement patterns correlate with types of gaze and verbal foci on the whole, while their interplay does not reflect an exactly parallel process. Latencies between the visual examination and the speech production may be very long (Hólšánová 2008: 147–148), but she assumes that this may be due to the speaker's communicative intentions [that] become gradually more structured.

³ In order to "improve" the procedure, i.e. to lessen the need for meta-cognitive reports, Pressley and Hilden later suggest keeping the instructions "more general" (2004: 312).

Altogether, Holšánová's account of the relation between picture viewing and verbal description is an elaboration of Chafe's interest in 'information flow', observed as idea units in intonation units, i.e. in verbal prosody. She adds to his analysis of verbal prosody (Chafe 1994: 53–191) the combination of spoken commentary with visual material.

When focusing on vision that is accompanied by spoken description of pictures, Holšánová speaks of "two windows to the mind and the focusing of attention [...] with the help of a 'spotlight' metaphor" (Hólšánová 2008: 79). The matching of visual and verbal data is measured as a process in time. The measuring occurs within the current moment, along a time line of milliseconds. This methodology, she argues, "is based on the assumption that a visually focused object always has a counterpart in the spoken language description that is temporally aligned with it" (Hólšánová 2008: 82). By observing eye movements in conjunction with spoken descriptions, configurations of verbal and visual clusters can be compared. A score sheet that registers fixation durations (of the eye) and the verbal idea flow enables the researcher to analyse what is happening during preceding, simultaneous and following fixations when a larger idea is developed and formulated. In this way, it is also possible to observe higher levels of discourse, such as the verbally formulated associations, comments, and impressions, including the "perceived and [verbally] described clusters [producing] large saccades across the whole picture, picking up information from different locations [of the picture]" (Hólšánová 2008: 149).

The comparison of visual and verbal foci in the process of picture viewing and picture description shows how language and vision meet through time and the units extracted from the empirical data give us hints about the ways in which information is acquired and processed in the human mind. (Hólšánová 2008: 176)

Altogether, the capacity of vision, and the sequential process of 'mental zooming in and out' is addressed. Conscious experience is observed in the form of sequential occurrences of the eye's fixations and saccades, as well as by concurrent descriptions of the objects observed in a scene, whereby the eye's fixations do not normally coincide with the naming of the objects, in other words, an "eye-voice latency" (Hólšánová 2008: 102) is observed. This, to me, is an account of the multichannel skill that directs conscious attention to a currently ongoing activity, and the signals of that attention stay with the given moment.

⁴ Idea units are based on intonation units (Chafe 1994: 61). There is one new idea at a given sequential point. The sequential order of the units is a cognitive effect. "The one new idea constraint [one new idea per unit] sets an upper cognitive limit on the content of an intonation unit, but reasons why so many intonation units contain less than one new idea also need to be addressed" (Chafe 1994: 119).

2.3. Bartlett's account of 'schema'

Bartlett's method of study is the following: "A subject was given a story, or an argumentative prose passage, or a simple drawing [...]. [The subject] attempted a first reproduction usually after an interval of fifteen minutes" (Bartlett 1995[1932]: 63). The initial picture descriptions and the retelling ('reproduction') of stories was complemented by the tracking of what was remembered, at intervals of one week, two weeks, a month, three months, a year, even ten years. (The subjects 'remembered' the material during these later events without being presented the pictures and stories again. The passing of time between the re-telling of what was remembered is the only faintly quantitative element in this method.) Bartlett became an important source of inspiration for subsequent research that used the methods of picture description and the retelling of what had been read. When cited, he is mostly referred to in relation to individual and social differences of response behaviours (e.g. Pressley and Afflerbach 1995: 42; Holšánová 2008: 68). In reading research, he is thus predominantly remembered for the view that "schematic content" contains details which are "essentially individual and concrete in their character [and] they [thus] increase the possible range of diversity of responses" (Bartlett 1995[1932]: 303).

However, Bartlett's work is also known as one of the important sources of another perspective on schema, namely, the concept of 'schema', understood as an experiential structure that organizes the routes of access to the experience of the world. Bartlett stresses that all previous experience determines the "orientation of the organism towards whatever it is directed to at the moment" (Bartlett 1995[1932]: 207–208) and writes, "We must begin our study [of 'recognizing'] from an investigation of the prior perceptual process" (Bartlett 1995[1932]: 187; emphasis added, G.B.-S.). Citing the neurologist Head, he elaborates that everything that enters into consciousness is "already charged with its relation to something that has gone before, just as on a taximeter the distance is presented to us already transformed into shillings and pence" (Bartlett 1995[1932]: 199).

That what is 'conceptualized' on the basis of all layers of previous experience enters consciousness as a conceptual formation. For this, "we propose the word 'schema" (Bartlett 1995[1932]: 199).

To summarize the above: I looked at research traditions that use data gathering methods, in certain respects similar to my own. When looking at such traditions, I hoped to detect shared common assumptions and, by that, to clarify my own. I learned that think-aloud protocols deal with reading primarily for the purpose of identifying the criteria that define skilled expert reading. I did detect affinities with eye-tracking research. There is a focus on the multi-channel skill of attention. However, the matching of vision and the accompanying prosody of spoken language

is studied when happening at the very moment when it occurs. In Bartlett's studies on remembering, the subjects report what is perceived on the occasion of revisiting a story, or a picture, that they had been given (to read, to view) at some earlier point in time. Bartlett emphasizes the relevance of previous experience in relation to current conceptualizations, and he regards the conceptual-structural role of previous experience as crucial for current experience. This was the gist of the term 'schema', relevant also for the developments of the perspectives on *gestalts* and image schemas.

3. The elicitation procedure and the data

In section 3.1., I will pull together the information about the elicitation method which I have already sketched out in Section 1, and will provide information about the student-participants' educational level and their the language profiles.⁵ In section 3.2., I will exemplify the responses by instances of the most frequent response categories.

3.1. Contextual information and language profiles

In the course of time, I worked with five different groups of students, altogether eighty-six respondents, in Hong Kong, and Berlin, Germany. All of them had, at some point, already come across Saint-Exupéry's *Le Petit Prince*, and had read it in their dominant, or working language (Chinese, English, German, Russian, Turkish). When being asked whether they knew the text, all the students answered that they did. Thus, having been asked to underscore elements of the text *ad lib* and jot down 'what comes to their mind', they were presented a text with which they were already familiar in one way or other. Different from Bartlett's studies on remembering, however, the text being read was in full view when the responses were given, and the students' responses were recorded only once.

At this point, a few words about the "general experimental conditions and the social relation of experimenter and subject" (Bartlett 1995[1932]: 216) should be in order. The students' readiness to take part in an elicitation event of the 'tell-me-what'

In principle, issue could be taken with the fact that the texts were not read in the students' respective mother tongues (home languages). However, I suggest that at university and secondary school levels language proficiencies – and related perceptiveness – are such that certain 'tasks' can be put to 'native' and 'non-native' speakers alike. Holšánová for example, presented 10 Swedish and 10 non-Swedish informants with an "authentic, spontaneous picture description in Swedish" (Holšánová 2008: 12) and found comparable agreements regarding discourse focus. I would also like to submit that the notion of mother tongue, or 'native' language is no longer a straightforward concept in multilingual contexts. Cf., for instance, the contributions in *Histoire Épistémologie Langage* 35(2), 2013.

kind of game depended very much on their situation and the corresponding disposition to engage in such an activity. Mature students, for instance, tended to turn away when asked to participate. (MA students of two evening classes politely declined to take part in an activity that one of them explicitly stated to be "for kids".) The other factors which influence the outcome of an elicitation event, its conditions of possibility so to speak, are the shades of meaning across translation equivalents (degrees of state readings, for instance), and the 'social relation of experimenter and subject'. In undergraduate and secondary-school groups the animating effect of a game element was felt. It so happened, however, that, even in such groups I met with silent resistance from four participants in the Russian group, and one person in the English group. The latter remarked that she could not 'relate' to the character of the little prince.⁶ It seems that consensus is not negotiable in such cases.

Moving now to the students' educational level and language profiles, I provide a summary overview of the participants' language profiles and their student statuses in Table 2 below.

The five groups of respondents read the excerpt in English, Chinese (WSC – Written Standard Chinese), German, Russian, and Turkish. The languages of instruction in Hong Kong are English and Cantonese. English is the medium of instruction for many students, starting in kindergarten. (Parents of upward mobile lower classes, and the middle class send their children to English-speaking kindergartens.) English is also dominant in quite a number of other social domains in Hong Kong, while most often it is not the home language.

Cantonese, and sometimes also other Chinese languages and dialects, are spoken at home, but WSC is the sole written medium for *all* students who are taught in Cantonese. (The group reading the Chinese text in WSC were students of a class of Remedial English.) Cantonese is a different language from *Putonghua*, which is the official (national) Chinese language. However, in Hong Kong the WSC is *taught in Cantonese*, pronounced in Cantonese and – in Hong Kong and Taiwan – written in traditional Chinese characters (Bruche-Schulz 1997).⁷ The students thus do *not* read the 'Chinese' texts in Putonghua, but in a read-and-write medium that is pronounced in Cantonese.

⁶ The persons who declined to take part in the event are not included in the participant numbers.

⁷ In Hong Kong, WSC is the only written code taught from kindergarten onwards. WSC is pronounced in Cantonese, both in teaching and in reading aloud. It is based on the traditional characters which speakers of Cantonese regard as part of their cultural heritage since a large set of characters dates back to the Tang dynasty.

Table 2. Summary of language profiles and student statuses.

Student status/ number	Language of instruction, and subject taught	Little Prince read in which language	Place	Status	Age
20 BA students	English (in Dept of English Language and Literature) Class on Bilingualism	English	University, Hong Kong	second year of studies	20–23
17 A-level students	Cantonese (secondary school) Class of Remedial English	Written Standard Chinese Secondary school, (NOT Putonghua) Hong Kong	Secondary school, Hong Kong	school leaver year	17–20
16 BA students	German, (Dept of General Linguistics. 'Allgemeine Sprach- wissenschaft'), Semantics Course	German	University, Berlin	second year of studies	20–25
16 Abitur (A-level) students)	Russian (secondary school) Subject: Russian Literature	Russian	Secondary school, Berlin	school leaver year	17-20
17 Abitur (A-level) students	Turkish (secondary school) Subject: 'Siyaset dünyasında müşteri'l 'Politische Weltkunde' [Subject: World-politics survey]	Turkish	Secondary school, Berlin	school leaver year	17-20

As for the Russian and Turkish languages, these languages are home languages in Berlin, and in bilingual secondary schools, depending on the subject which is taught, the medium of instruction – mathematics is taught in German, for example. In German-speaking social domains, the students also speak German. It thus may happen that they read the text and give their responses in both Russian and German or, in the Turkish group, in Turkish and German.

3.2. Responses exemplified

The response categories are best described as typified by role-taking, i.e. by presenting the reader self's interaction with the text in relation to the reader's current orientation towards sensory and sensory-cum-conceptual input. There is no role taking as in social activity types, but a kind of interaction that is best described, I suggest, by types of perspective taking and running through a variety of scenarios, that are not locatable at a particular point in time. I borrow from Scollon the notion of 'spectator' which he sees fit to cover "the acts of spectatorship of reading and watching" (Scollon 1998: 5).

There are, then, spectators who take note of what they perceive in a seemingly neutral manner, apparently not being 'moved' by any affectively experienced element. But there are also those who, like the spectators of a football match, appear to watch with great interest and become emotionally involved with every 'goal' chance (will the goal be scored, or the chance be missed?). Reader-spectators may also judge the performance of the team, act as experts who advise, criticise, mock, complain etc. Lastly, there are spectators who create a reality, a mood, or sentiment, which they project onto a situation. I provide a few examples of such spectator roles in section 3.2.1. below.

3.2.1. Spectators: experts, mockers, dreamers

Spectators underline linguistic signals perceived as foci of attention. They use these underlined words as metonymical keys, map them onto a construed context, and display an affectively shaped understanding as expressed in their responses. Single-word responses are especially malleable when it comes to locating them in a response category. On the face of it, they may look like uninvolved neutral statements, but they may also be understood as expressing all sorts of affectively motivated orientations towards the scenes and scenarios perceived (Table 3).

S[egment] English	Underlined text	Response
s[egment2] Men, set out on their way in express trains	s[egment 2]: 匆匆忙忙 chung1chung1 mong6 mong6 'hastily [throng]'	P[erson4]CH[inese]: "busy" [responds in English]
s[1] said the little prince	s[1] <i>kleine Prinz</i> 'little prince'	P9G[erman]: "Theaterstück" 'theatre play'
s[9] was not like the well of the Sahara	s[egment 9] колодцы в <u>Caxape</u> 'the wells of the Sahara'	P14R[ussian]: "Африка" 'Africa'
s[1] said the little prince	s[egment 1] : <u>Küçük Prens</u> 'little prince'	P14T[urkish]: "masal kahramanı" 'fairy tale hero'

Table 3. Single-word keys to scenes and scenarios.

Because of the one-word format, the responses may look like dictionary entries, but take e.g. P4CH at s[2]. When P4CH uses the English word 'busy' it is the Hongkong way of saying it [bizi:]. This word is all about busy places, and busy schedules. It connotes the particular experience of 'hectic' in various settings. In a similar way, the remaining single-word responses may look like dry, or even bored, statements, but may also express a particular feeling tone (interest in a subject matter, evoking a scene, satisfaction of knowing what the underlined word is about, and so forth). Table 4 shows a further example of a one-word response.

Table 4. Mocking, or reporting on a 'technique'.

S[egment] English	Underlined text	Response
s[17] Everything was ready for use: the pulley, the bucket, the rope	s[17]CH: 水桶_seui2 tung2 'bucket'	P1CH: "廁所" chi3 so2 'toilet' [blending several purposes, evoking different settings]

In Figure 2 that is shown next, the response is given by P13E[nglish] to segment s[9] ('was not like the wells of the Sahara'). The focal cue is the word 'Sahara'. The 'Sahara' is modified with the attributes 'hot', 'thirsty', 'silent'. These are again single-word responses. This time, however, they seem to create an atmosphere, or a mood, that runs through a landscape. A pictorial element is added that expresses these elements.⁸

⁸ The pictorial responses deserve, or call for, an examination that appreciates their difference from the written responses.

Figure 2. A timeless situation, a mood, a dream.

In all cases, there is a self and another self to whom the verbal or pictorial 'message' is addressed. While single-word responses may allow for multiple meanings or connotations, multiple-word responses may either invoke or directly express particular discursive acts.

3.2.2. Challenging, or cheering on an addressee

Multiple-word responses disambiguate the readers' positioning of themselves. In the examples below, readers may present responses that address an addressee whose presence is projected onto an intersubjective space. Such an address may carry different connotations, and may show how the reader becomes a highly involved spectator, involved to a degree that seems to make her interfere with the story world. Table 5 provides examples of multi-word responses.

Lastly, there is a reader role which takes the cue from the text world, and withdraws into her own. I call the reader in this spectator role a 'character involved with a self'. For instance, a reader remarks that his *brother* is "a little prince". When it comes to the drinking of the water from the well, two readers report that they are 'also' thirsty right now. Upon s[14] (*I must be dreaming*), one of the respondents remarks that she is often afraid of falling asleep at night because she is afraid of having bad dreams. For lack of space, I refrain from an exhaustive and more specific account of all the overt responses.⁹ I take it that, for the present purpose, the examples above sufficiently illustrate the nature of the response items that underly the response numbers, and their patterns.

⁹ Among the respondent groups, different preferences for the one or the other role type were observed.

S[egment] English	Underlined text	Response
17. Everything is ready for use: the pulley, the bucket, the rope.	P2R: тут всё приготовлено: и ворот, и ведро, и верёвка [literal translation]	P2R(G): "Wieso sollte der Brunnen nicht schon fertig sein?" 'Why should the well not be ready yet?'
37. "Give me some of it to drink…"	P12CH: 我喝_'me to drink'	P12CH: "咁 咪 飲 lo!!! gam3 PRT mai5 PRT yam2 lo PRT 'well, then go for it'
42. It was as sweet as some special festival treat.	P20E: [as sweet ascont]	P20E: "Yummi"

Table 5. Comment, argument, or provocation.

4. On response patterns

At this point, it should be in order to recapture the main concerns of the present paper. The initial assumption was born from the discovery that response numbers form patterns when readers 'jot down what comes to mind' at particular semantic points. This caused me to assume that the readers' responses which reveal regular patterns at criterial semantic points mean something beyond themselves. I assumed that the regular patterns of the response numbers represent some sort of response evidence. When looking for explanatory frameworks, I had to consider both the linguistic semantics of the segments at which responses were given, and the distribution of the numbers. It seemed to me that the correlation between these two elements created a semantics by itself, a conceptual semantics that underlies and supervenes upon the linguistic semantics.

The conceptual basis for dealing with the latter seemed to be described best by the perceptual presence of (image) schematic figure-ground relations (Johnson 1987: 18–64). The evidence, believed to manifest itself when perceived on this basis, is taken to confirm the simultaneous presence of different layers of semiosis that originate on different time scales and shape current experience.

As next, I briefly recapture the information regarding the dividing of the text into segments. I divided the text into forty-five segments, whose core is a verb. The verb is central to the descriptions of the semantics of events (Smith 1991: 65–87; Kearns 2000; Givon 2001: 106, 287–297). I follow Kearns in assuming that actions belong to the event category: "Events are all the kinds of happenings which are not states, including actions" (Kearns 2000: 151). A state reading, besides being denoted

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by state verbs, may be caused also by an unbounded process consisting of ongoing iterative events. If so, a segment may be identified by more than one verb. There are altogether forty-five segments, divided into altogether ten segment groups, four of which are shown in Tables 7–10 (segments 1–14). As mentioned before, only those responses are counted that are clearly linked to 'locatable', i.e. underlined, circled or otherwise marked words or word groups. Such *local-view* responses are reflected from the response patterns shown in Figures 3–6. There are two further types of responses which are not considered in the response statistics of Figures 3–6. The first of these two types consists of mostly metacognitive comments that link large portions of the text. I labelled them global-view responses. The second type of responses that is not considered in the response statistics does not show an explicit link to the text at all. Only guesses are possible, based on the positioning of the responses in the vicinity of certain textual segments. Such UAV (unaffirmed view) responses were not included in the response numbers and their statistics either. The numerical values of these three response types are shown in Table 6 below.

Table 6. Local, global, and UAV [unaffirmed-view] responses.

Marking by: arrow,	E 20	СН	G	R	Т
underlining, circling	partici- pants	17 part	16 part	16 part	17 part
Local-view (loc: marking portions of a segment)	159	147	129	122	153
Loc-view: average per person	8.0	8.6	8.0	7,6	9,0
Global-view (glob: responding to several segments or paragraphs)	16	1	5	13	9
Glob-view: average per person	0.8	0.06	0.3	0.8	0.5
UnAffirmed View (UAV: no identifiable relation to segments or paragraphs)	4	3	1	6	5
UAV: average per person	0.2	0.2	0.06	0.25	0.3
Note (av: average per person)					
Total of loc, glob, UAV responses	179	150	135	139	167
Average per person of total of (loc, glob, UAV) responses	8.9	8.8	8.4	8.7	9.8

The low numerical values of global-view and UAV responses justify, so I think, excluding them from the statistically edited numerical values of the local-view responses. Only the frequency patterns of the local-view occurrences, i.e. the patterned numbers of the clearly visible links between marked-off portions of the text and a corresponding response in the margin of the text, are recorded, and presented in diagram formats in Figures 3–6.

4.1. Key concepts of the analysis: image schema, *gestalts* and their conceptual structures

For the ways in which current experience is shaped by previous experience, Bartlett proposes "the word 'schema" (Bartlett 1995[1932]: 199). However, Bartlett did not specify the nature of a schema, other than in general terms, i.e. with a general reference to movements and postural changes.

This explanatory gap is met by Johnson's (1987) account of image schematic structures and by some of Talmy's work (2000a, 2000b, 2000c). Johnson argues that "the organic unity we call our body" (Johnson 1987: 87)¹⁰ allows for embodied patterns of meaningfully organized experience, and stresses the analogic nature of the *image* schema. The experience of the world rests on this bodily framed basis. "[Our] bodies are clusters of forces¹¹ and [...] every event of which we are apart consists, minimally of forces in interaction" (Johnson 1987: 42). Forces in interaction are conceived by their vector quality, a directionality. Preconceptual *gestalts* give shape to the experience of a *path of motion*, *origins* or *sources*, *degrees of power or intensity*.

Some people use the term "gestalt" to mean a mere form or shape with no internal structure. In contrast to such a view, my entire project rests on showing that experiential gestalts have internal structure that connects up aspects of our experience and leads to inferences in our conceptual system. What I am calling "image schemata" [...] are all gestalt structures in the sense just described. (Johnson 1987: 44)

The experience of the world rests on a few basic patterns. There are schemata for spatial and temporal orientation, the container schema "which marks off a bounded mental space" (Johnson 1987: 39), preconceptual *gestalts* for force, and the different kinds of the experience of "balance" (Johnson 1987: 42–53, 74–90).

Speakers of all languages share these *gestalt* patterns. To be sure, their environments demand and motivate different behaviours and dispositions. But their

Johnson makes no reference to Bartlett. He does discuss Kant's notion of schema (Johnson 1987: 152–153).

¹¹ Johnson invokes Talmy's analysis of modals as "relating to our experience of physical forces" (1987: 51).

preconceptual experience remains the same – even though the *linguistic* conceptual shapes vary across different languages and language typologies: compare Whorf's statement from 1940.

There is one thing on wich all observers of the appearance of a running boy will agree, [...] that it can be divided into parts – and that they will all make the division in the same way. They will all devide it into (1) a figure or outline having more or less of motion (the boy) and (2) some kind of background or field against which, or in which, the figure is seen ...". (Whorf 2012[1940]: 208)

Whorf continues, "[The] discovery made by [...] configurative or Gestalt psychology gives us a canon of reference for all observers, *irrespective of their languages* [emphasis added – G.B.-S.]" (Whorf 2012[1940]: p.209). In a similar vein, Talmy remarks that fundamental elements of experience figure "in the semantic basis of all languages [and] constitute a part of universal semantic organization, *deeper than those respects in which individual languages differ from each other*" (Talmy 2000[1976]: 471; emphasis added – G.B.-S.).

In this spirit, I will describe the gestalt structures of the segmental units. When elaborating figure-ground relationships as to be read off response patterns, I am drawing mainly on Johnson (1987) and to some extent on Talmy (2000[1976], 2000[1985], 2000[1996]).

4.2. The analysis: frequency patterns reflecting image schematic structure

Frequency patterns are established on a scale of high and low values. The lowest response number per person is zero, the highest number of responses given by student-participants is fourteen. I regard values of four to seven as medial. Low response numbers, in terms of force gestalts, signal the (experience of the) formation of a force impulse whose direction is not yet known. High response numbers express (the experience of) satisfaction regarding the *knowing* of which kind of force has taken which direction and has resulted in some good or laudable outcome. Medial response numbers may express (the experience of) an uncertainty resulting from more than one meaning valence issued by a linguistic element, but also from current dispositions. As an analyst, I have not speculated about current dispositions, but concentrated on the valences of linguistic elements.

In the following, categorial denotations such as 'assertion', 'question' and the like, easily take on an ontological status when mentioned as, e.g., syntactic subjects which are easily read as connoting semantic agents. I would like to stress that it is our *perception* that makes them into such entities. I do not want to burden the presentation

of the data with cumbersome repetitions, yet it should be clear that I do not assume a force of 'the' assertion or 'the' question to be operative, but it is the readers perceptive (*phenomenological*) *experience* that underlies high, medial, and low response numbers.

Speech and thought introducers, *negative*, or *negated*, *assertions*, questions, bounded events and expressions of wondering ('it is strange') draw in zero and low response numbers (low: 1–2) – a force impulse is *sensed*, but it is not yet known which direction it will take. On the other hand, contrastive negations (that allow for one member of a contrast to be *positively* asserted), lasting states (including evaluations), and unbounded events draw in high response numbers (9–14) – the omnipresense of some lasting condition *sensed* (as a lasting achievement, as satisfaction, and the like). In section 4.2.1 I will describe four segmental units in some detail (1–4, 5–7, 8–10, 11–14).

4.2.1. Text segments 1-4, 5-7, 8-10, 11-14

I first present the translations of *Le Petit Prince* as parallel texts in tables so that translation equivalents can easily be figured out. I will then comment on the semantics of the segments that form an event unit. An overview of the response frequencies follows in a diagram format, and information about response frequencies is added in numerical form.

A word of clarification regarding s[egment1] should be in order already at this point: When the readers see the words *the little prince said*, they deal with *a sayer, a person* who says, and the *saying*. However, the response numbers shown in Figure 3 result from the underlining of the words *the little prince*, not from the underlining of the word *said*. Usually, the 'saying' by itself draws in *only zero and low* response numbers (as is confirmed by the speech-and-thought-introducing segments in Table 8: s[egment6], and in Table 10: s[13]). In Table 7, however, it can be seen that, in four languages, the subject of s[egment2] is preposed to s[1]. With the subject of s[2] preposed to s[1], the text of segments 1–4 thus starts only indirectly with a saying, and response numbers are medial or low. Only in Chinese, *the little prince*, i.e. the grammatical subject that introduces the character who sets the stage, draws in high response numbers.

As can be seen from Table 7, the generic grammatical subject of s[egment2] is preposed to s[egment1] in English (Men), German (*Die Leute*), Russian ($\Pi \omega \partial u$) and Turkish (*İnsanlar*), but *not* in Chinese, draws in low and medial response numbers.¹²

¹² In Turkish, there is a medial, nearly high, response number (7) which I ascribe mainly to the special meaning that the term Küçük Prens 'the little prince' has in Turkish families (self-asserting small children are called that way). Attention seems to be split between two domains in Turkish, the narrative and the home situation.

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Table 7. Segments 1–4.

English	Chinese	German	Russian	Turkish
2.a) "Men",		2.a) "Die Leute",	2.а) – Люди	2.a) – İnsanlar,
1. said the little prince,	1. 小王子 說 : [little prince say]	1. sagte der kleine Prinz,		1. dedi Küçük Prens.
2.b) "set out on their way in express trains,	2. 人們 ['men']只 顧著匆匆忙忙 擠到快車裡,	2.b) "schieben sich in die Schnellzüge,	2.b) забираются в скорые поезда,	2.b) hızlı trenlere doluşuyorlar;
3. but they do not know	3. 卻 不曉得	3. aber sie wissen gar nicht,	3. но они уже сами не понимают,	4. ama ne aradıklanını
4. what they are looking for.	4. 究竟要找什麼,	4. wohin sie fahren wollen.	4. чего ищут, –	3. bildikleri yok.
			1. сказал Маленький принц.	

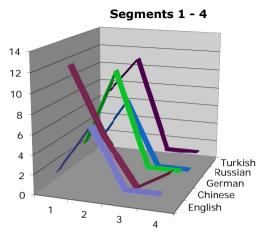
Gestalt: Force creating an energy ray at s[1]

In Chinese, however, *the little prince* appears at s[1] as the persona who emits a causative force-dynamic 'energy ray', that brings into being the stage for an event *to start*. This energy ray creates a 'personation envelope' (Talmy 2000[1985]: 92). It sets the stage for a self (the little prince) as the starting, or central, figure that creates a surrounding space, thus engulfing other selves, i.e. an unknown intersubjectivity. Response numbers are high.

Force gestalt: Interaction of force impulse, i.e. event with vector quality that originates from a persona dramatis (*the little prince*), directionality towards other events (in a yet unknown spatial space).

Figure: Initial causal event (emitting force impulse); *Ground*: spatial vector qualities and yet unknown actor-selfs in unknown spatial space.

Figure 3 shows the response frequencies in diagram format and in numerical form underneath the diagram. In the title of Figure 3, only those semantic elements are mentioned that draw in low response numbers. They are: *negative*, or *negated*, *assertions*, questions and questioning senses, bounded events, expressions of wondering ('it is strange'), and speech and thought introducers.



Segments	Engl. 20 persons	Chinese,17p	German,16p	Russian,16p	Turkish, 17p
1	2	12	3	2	7
2	7	5	11	7	11
3	1	0	1	0	1
4	1	2	1	0	1

Figure 3. Speech introducer at s[1], negated assertion at s[3], questioning at s[4].

At s[2] which presents a generic, unbounded event response numbers become medial and high. In Chinese, a valuative tone is added to the iteration of the act of setting out in trains (people 'busily throng' [all the time] into express trains). While the feeling of a 'going-on-and-on', causes a *balance* between attentional values, the connotation of a negative valuation causes a hindrance, a counterforce. There are only five responses in Chinese, as compared to eleven in English and German.

At s[3], the observation is confirmed that *negative assertions* draw in zero and low (0–2) response numbers. (A negative *assertion* exerts a counterforce.) At s[4] response numbers stay zero and low; s[4] may still be under the scope of s[3]. – S[egment4] is 'nested' within s[3]. It expresses a questioning sense by itself, and complements a negative assertion (syntactically). The difference of response numbers across the five groups may have to do with different connotations of 'what they are looking for' (in English). In Chinese, Russian and Turkish, the translation equivalent of 'looking' implies a *search*, in German it is 'where to go to [using a vehicle]'.

I will deal with segments [5–7] in Table 8.

Table 8. Segments 5-7.

ush about, and d turn round	5. 只見他們手忙腳亂		Kussian	IUIKISII
		ner regen sie sich drehen sich im	5. – Поэтому не знают покоя, бросаются то	5. Dolayısıla da koşuşturuyor, dört
and round"		Kreis"	в одну сторону, то в другую	dönüyorlar
6. And he added 6. 然後他	6. 然後他就說:	6. Und er fügte hinzu:	6. Потом прибавил:	6. Ve ekledi:
7. "It is not worth the trouble 7. 『何 吉" Why suffe	7. 『何苦這樣嘛?』 Why suffer so bitter?	7. "Das ist nicht der Mühe wert"	7. – И всё напрасно	7. – Zahmetine değmez

S[egment5] receives high response numbers. It denotes an unending ongoing event. (Gestalt, consisting of: *Figure* – bodily sense of continuity, equilibrium [balance] with *Ground*).

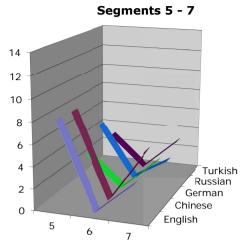
S[egment6] whose criterial semantic element is that of a thought introducing verb receives *zero* responses. While it is true that speech and thought are introduced by the narrative persona who creates "the personation envelope or the transitivity envelope" (Talmy 2000 [1985]: 92), speech and thought by themselves seem to be experienced differently from the first appearance of the persona who emits it. When the little prince appears on the stage (as in Chinese, see the remarks concerning s[1]), he brings about the *start* of the text world, and response numbers are high. However, the readers' responses distinguish between an actor's deeds when setting the stage and her/his sayings. The saying and thinking by itself an actor low response numbers.¹³

(*Gestalt*, consisting of: *Figure* – enveloping force, *Ground*: unnamed or unknown other selves and forces).

S[egment7] contains a negative evaluation which, like a questioning sense, receives low to medial response numbers. (*Gestalt*, consisting of: *Figure* – normative scale path, *Ground* – area around path, total of gradients on scale; self pursues normative interest, but balance on valuative scale remains 'low/undecided'; Johnson 1987: 123). Next, Figure 4 shows the distribution of the responses at s[5–7].

S[egment8] denotes a bounded event and receives mixed response numbers. (Gestalt, consisting of: *Figure* – endpoint of path, *Ground* – path). The perspective on the 'the coming to the well' is viewed as either a punctual achievement (as in English, Russian, and Turkish), or as a more slowly happening process. In Chinese, the 'coming to the well' is 找到, which describes the reaching of the well after having *searched* for it. This is thus no punctual achievement, but a longer process. The response number (six) in Chinese is still in the medial range, but not low as it is in the other languages.

¹³ Talmy's suggestion of the "envelope" that encloses the actor and the action as well as the causal activity "connecting the two", Talmy 2000[1985]: 92, seems to apply. However, I believe that only further "stamp collecting" (Donald 2001:122), i.e. working with real data, will give more insights regarding the "connection" between an actor and the kinds of corresponding causal acts.



Segments	English, 20p	Chinese,17p	German,16p	Russian,16p	Turkish, 17p
5	8	8	3	5	3
6	0	0	0	0	0
7	3	5	3	2	3

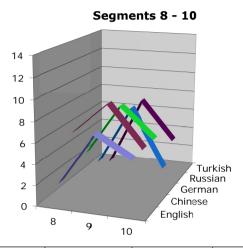
Figure 4. Verb of saying at s[6].

Segments 8–10 are presented in Table 9 below.

Table 9. Segments 8–10.

English	Chinese	German	Russian	Turkish
8. The well that we had come to	8. 我們找到的那口井	8. Der Brunnen, den wir erreicht hatten,	8. Колодец, которому мы пришли,	8. Vardığımız kuyu
9. was not like the wells of the Sahara	9.不像是撒哈拉沙漠地帶的井.	9. glich nicht den Brunnen der Sahara.	9. был не такой, как все колодцы в Сахаре.	9. çöl kuyularına benzemiyordu.
10. The wells of the Sahara are mere holes dug in the sand.	10. 撒哈拉沙漠地帶的并通常只是一些在沙地裡挖個簡單的洞.	10. Die Brunnen der Sahara sind einfache, in den Sand gegrabene Löcher.	10. Обычно здесь колодец – просто яма в песке.	10. Çöl kuyuları kumların içinde açılmış basit deliklerdir.

S[egment9] signals a contrastively negated entity,¹⁴ implying that there do exist wells, somewhere else but not in the Sahara. (Force *gestalt*, consisting of: *Figure* – epistemic blockage, but the blockage is diverted, Johnson 1987: 52; *Ground* – blockage, factive, non-removable.) – See Figure 5.



Segments	English, 20p	Chinese,17p	German,16p	Russian,16p	Turkish, 17p
8	2	6	3	1	0
9	7	9	8	7	7
10	5	5	5	1	3

Figure 5: Bounded event at s[8] in English, Russian and Turkish.

Gestalt: Scale Schema

S[egment10] shows different degrees of *valuations* in the five languages. English has a pejorative 'mere hole' when talking about the well. Chinese and German are similarly valuative (CH: 只是一些 'are merely', G: 'einfache Löcher', 'simple holes'). The endpoint of a normative Scale stops mid-way or is inhibited, i.e. is not reached. As for Russian and Turkish, the valuation concerns rather the certainty of the negative statement on the quality of the holes. (*Gestalt*, consisting of: *Figure*: point on a scale; *Ground*: norms are mapped onto the scale; Johnson 1987: 123.)

Segments 11–14 are presented in Table 10.

¹⁴ To be sure, contrastive negations *negate* something. But response values are not low as in negated, i.e. negative, assertions. Only negated assertions receive low or zero values. See for instance s[3] and s[12].

Table 10. Segments 11–14.

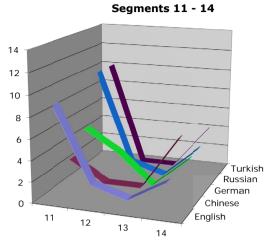
English	Chinese	German	Russian	Turkish
11. This one was like a well in a village.	11.這口井卻 很像一般村 裡的井,	11. Dieser da glich einem Dorfbrunnen.	11. А это был самый настоящий деревенскый колодец.	11. Bizim kuyu bir köy kuyusunu andırıyordur.
12. But there was no village here,	12.但是那裡 的周遭沒有 任何村莊,	12. Aber es war keinerlei Dorf da	12. Но деревни тут нигде не было,	12. Oysa burada köy falan yoktu,
13. and I thought	13.於是我開始懷疑	13. und ich glaubte [zu träumen.]	13. и я подумал,	13. [düş gördüğümü] sanıyordum.
14. I must be dreaming	14.自己是否 在作夢.	14. zu träumen	14. что это сон.	14. düş gördüğümü

S[egment11] is a factive statement that denotes a matching of components; my knowing is 'matched' by *a well in a village (matching* schema mentioned by Johnson, 1987: 126). I recognize something. The experience of the knowing is of a comfortable certainty in English, conveying a reassuring experience of *balance*. The Russian text evaluates the well in a village as a 'real village well' (high and comfortable certainty). The Turkish text speaks of 'our well' (which makes the well into an object that the readers have been searching for *together with* the pilot and the little prince). There are thus affective shades that accompany the statement of knowing the well, and *forces of attraction* (Johnson 1987: 126) colour the knowing. In these two languages at least, such forces are explicitly built into the semantics of the words. That Chinese draws in the lowest, and German a medial value, makes – on this view – for less of a 'comfortable' *balance*, and might have to do with the anticipation of the *negation* found at s[12] ('but there was no village here').

There being NO village means a complete *blockage*, a *counterforce* of the balance expressed at s[12]. The observation that negated assertions draw in zero or low responses is confirmed at s[12].

At s[13], in all languages, a *thought envelope* is enacted that surrounds all fellow persons, including the readers, with a new perspectival space. The already mentioned observation that speech and thought verbs draw in zero and low responses is confirmed at s[13].

At s[14] the *being in a dream* (a thought realm) is again expressed with different shades of *affective force*. Response numbers are low to medial (containment area of s[13] still in effect, spatial and temporal orientation not certain). Figure 6 shows the situation at s[egments 11–14] below.



Segments	English	Chinese	German	Russian	Turkish
11	9	3	5	10	10
12	2	1	3	1	0
13	1	1	0	0	0
14	3	6	3	3	4

Figure 6. Thought introducer at s[13].

I have explored the possibility of theorizing the occurrence of low and high response numbers in terms of event perception as structured by *gestalt* principles. When doing so, what looks like a quantitative pattern can be shown to be accompanied by path, scale, and force (including affective) *gestalt* components that are an integral part of the structuring process. Aiming at *balance* and striving for the endpoint of a *path*, or *scale*, are motivated by affective dispositions.

In sum, it appears to me that the response patterns come about by the readers' sensitivity to criterial (image) schematic features that are read as inhering in linguistic expressions. These criterial features are derived from the body's experience of force (balance), motion and space.

Up to this point, segments 1–14 have been presented against the backdrop of an analysis that elaborated the frequency patterns as reflections of image-schematic perceptual patterns. (For lack of space, the total of altogether 45 segments that were responded to by the student-participants cannot be discussed in this paper.) Only a few *gestalts* (Force-dynamics, i.e. force along path and counterforce, Cycle, Scale, and Containment) appear to capture the experiential quality of the semantics of the textual segments. However, this statement has yet to be verified by other studies.

5. Conclusion

In this paper I report on a set of data which, so I believe, give evidence of current experience as being conceptualized on the basis of conceptual structures that originate from different time scales. The data was collected during elicitation events, i.e. during occasions when readers jotted down in the margin of a text 'what came to mind' (after underlining in the text at which point something came to mind). When observing the response items being positioned at crucial semantic points across five different groups of readers, a pattern was emerging that could not be random; it was giving evidence of 'something'.

I hypothesized that this something is the conceptualization of the experience of event structures, since high and low response numbers correlate with the semantic properties that inhere in such structures. When looking to research traditions that use data gathering methods similar to my own, I was hoping to find illuminating insights. I learned that think-aloud methods deal with reading primarily for the purpose of clarifying the criteria that define skilled expert reading. I did detect affinities with picture descriptions as accompanied by eye tracking research, but had to realize that this method deals mainly with the matching of eye movements and prosodic cues at the current moment. How Bartlett made use of reader response data was the most inspiring. It led me to the different versions of schema theory which do address the presence of primal conceptual experience in current speech and thought activity. Johnson's work of 1987 gave me most of the criteria for understanding and detecting the signalling of the conceptual presence of more than one time scale. Altogether, I believe that I have presented data in this paper that give evidence of the workings of a semiosis that underlies and supervenes upon linguistic semantics.

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В какой момент при чтении текста начинается семиозис? О перцепции события

В статье описывается корпус данных, являющийся доказательством, что события переживаются на основе концептуальных структур. Данные получены при использовании процедуры, которая частично имеет сходство с протоколом громкого думания (think-aloud protocol) и с исследованией движения глаз (eye-tracking). Текст (отрывок из «Маленького прица» Сент-Экзюпери) был зачитан пяти разным группам читателей в разное время и в разных местах на пяти разных языках. В течении десяти минут испытуемые должны были подчеркнуть слова, которые вызывали у них ассоциации, и описать на полях текста свои спонтанные ответные реакции. Эти реакции, которые выражались иконическими и вербальными знаками, свидетельствуют о том, как читатель воспринимает элементы окружающей среды, с которыми он взаимодействовал в момент чтения. Если отмеченные реакции ввести в соответствие с сегментальной позицией, выявляются закономерности на основе различий в частоте реакций. Семантические свойства языкового материала, находящегося в этих сегментальных позициях, указывают на наличие воспринимаемого (образно)схематического соотношения фона и фигуры (figure-ground relations) в основных событийных структурах. Представляется, что в переживании опыта участвуют одновременно срезы семиозиса из различных временных пластов.

Kus on teksti lugemisel semioosi algus? Sündmuse tajumisest

Käesolevas artiklis annan ülevaate andmekogumist, mis minu arvates näitab, et jooksvat kogemust kontseptualiseeritakse erinevatest ajaskaaladest pärinevatest kontseptuaalsetest struktuuridest lähtuvalt. Andmed on saadud, kasutades protseduuri, milles on valjusti mõtlemise protokolli (think aloud protocol) ning silmaliigutuste jälgimise (eye-tracking) jooni. Loetud tekst on narratiiv, katkend Saint-Exupéry "Väikesest printsist". Tekst esitati viiele lugejarühmale erinevatel aegadel ja erinevates kohtades viies erinevas keeles. Kümne minuti jooksul joonisid nad alla sõnad, mille puhul neile midagi meenus, ning tegid leheküljepikkuse teksti äärtele spontaanselt märkmeid oma reaktsioonide kohta. Nende reaktsioonid, mida väljendati pildiliste ning kirjalike märkide abil, annavad tunnistust sellest, kuidas tajutakse stseenide ja stsenaariumide elemente, lühidalt, selle keskkonna elemente, millega lugejad lugemishetkel vastastikmõjus on. Kui üles märgitud reaktsioonid viia korrelatsiooni segmentaalse positsiooniga, milles need esinevad, tulevad ilmsiks korrapärad, millele osutavad märkimisväärsed erinevused reaktsioonisagedustes. Nendes segmentaalsetes positsioonides asuva keelelise materjali semantilised omadused osutavad (kujund)skemaatiliste figuurfoonisuhete (figureground relations) tajutavale olemasolule põhilistes sündmusstruktuurides. Seega tundub, et jooksvale kogemusele aitavad üheaegselt kaasa erinevad semioosikihid, mis on pärit erinevatest ajaskaaladest.