REPETITION AND INTERTEXTUALITY AS MODALITIES OF TEXT STRUCTURING AND PERCEPTION

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Abstract. This article examines the relationship between a text structure and the perception of a text from the perspective of a linguo-synergetic approach. The paper is grounded in the mathematics of harmony and the theory of intertextuality. Using the metro-rhythmic algorithm, the author reveals symmetrical and asymmetrical repetition, its vertical and horizontal types which influence text perception harmonically. The perception of a linear text is mainly influenced by a non-linear text structure which is revealed at horizontal and vertical scales of repetition and intertextuality. A horizontal type of repetition includes repeated rhythmic units within a coursebook. A vertical type includes lexical and syntactic repetition within one text. Being spaced in time, repetition forms a spiral, due to which a text can be easily perceived and memorized by students. Intertextuality is divided into hypertextuality and paratextuality, presented horizontally; and intextuality and architextuality, presented vertically. Intertextuality is an effective way of text interpretation, which activates students’ background knowledge. The article has been written within the broad framework of the field of foreign language acquisition. A polylogue is a text that has intertextual inclusions and repeated lexical and syntactic structures which create a harmonic rhythm that enables key words and sentences to be recycled. Together with task-cycling and spaced retrieval, a harmonically structured polylogue makes foreign language acquisition effective.

Key words: text perception, retrieval, page layout, polylogue, repetition, intertextuality

1. INTRODUCTION

Applying a linguo-synergetic approach to a text structure analysis, the article aims to disclose the relationship between the self-similar properties of a text and its perception. In particular, we adapt a harmony search based algorithm and use the metro-rhythmic algorithm proposed by G. A. Moskalchuk to reveal the repeated rhythmic units in a text.
structure. Based on the works of such theorists of intertextuality as F. de Saussure, M. Bakhtin, Ju. Kristeva, R. Barthes, and G. Genette, we describe and classify different intertextual units found in texts for learning English as a foreign language. A text is the key element of reading, listening, speaking and writing. Teaching a foreign language involves texts rich in complex grammatical structures and context-specific lexical items.

The experiments conducted by A. A. Leont’ev and G. A. Kitaygorodskaya within psycholinguistic and pedagogical studies show that students perceive and understand complex structures under the condition that the learning process involves critical thinking. The results of the experiments confirm that the model of foreign language acquisition is supposed to be cyclic and divided into three phases: synthesis, analysis and synthesis.

Based on learner-centered teaching and communicative learning, the model of foreign language acquisition involves a text in each phase. In terms of synergetics within the frames of studying a foreign language the analysis of a text unfolds its structural and semantic self-similar properties. Our evaluations show that the properties such as repeated rhythmic units and intertextual inclusions make the text perception most favourable.

2. TEXT COMPOSITION AND PAGE LAYOUT

It is important to design page layout carefully because it influences perception. An example of page layout is presented below.

Table 1 Page layout

<table>
<thead>
<tr>
<th>OXFAM PLEDGES SUPPORT FOR CHARITY COMMISSION INQUIRY</th>
<th>1. a trustee – a bare owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxfam trustees (1) and staff have had regular discussions with the Charity Commission over many years about the extent to which the charity can properly bring matters to the attention of the public and influence the government. This is a complex and ‘grey’ area of charity law. Oxfam’s director said “As a responsible charity we strive to ensure that our important advocacy and campaigning work always remains within the law.” Oxfam is registered with the Charity Commission as a charity which “seeks to relieve poverty (2), distress and suffering in any part of the world, to educate the public concerning the nature, causes and effects of poverty, and to procure (3) research and publish the results thereof.” The charity spent about 4% of its gross income on information, education and campaigns last year. “Oxfam has a charitable duty to educate the public about the causes of suffering”, Director said: “Our education and campaigning activities aim to raise public awareness of the experience of poor people with whom we work. “We will share with the Commission our repeated experiences of what responsible campaigning and advocacy work can do; that is, create positive changes for the better in the lives of thousands of poor and deprived (4) people.”</td>
<td>2. poverty</td>
</tr>
<tr>
<td></td>
<td>3. to procure – to provide</td>
</tr>
</tbody>
</table>

(1) a trustee – a bare owner
(2) poverty
(3) to procure – to provide
(4) deprived
Over the past decade Oxfam has done a lot of successful campaigning. For example, to curb the inappropriate marketing and unsafe use of baby milk and pesticides; to make essential drugs more available to the poor and to highlight the problems of Cambodia. These campaigns have undoubtedly helped relieve suffering and save lives.

Table 1 shows the page layout that implies the perception of an authentic text due to the availability of synonyms and definitions which are on the right side of a page. Students do not need to refer to bilingual dictionaries to get the meaning of a word or an expression. If a teacher provides not only synonyms or definitions, but various contexts, students comprehend and interpret expressions with multiple meanings. Additionally, the blank space on the right side of a page can be used for notes. Those notes assist in building up the vocabulary.

Given beside a text box, time-saving activities may help students work independently on reading strategies and improve their reading skills. In order to develop reading, listening, speaking and writing skills, the text composition as well as page layout should get students engaged in polylogic communication. Text composition implies organizing a text in the form of a polylogue so that certain words or grammatical constructions are emphasized. Owing to its dynamic rhythmic composition, coherence and cohesion, a polylogue ensures remembering a high-volume complex text.

A polylogue is a model of oral speech, which includes speech patterns, complex grammatical structures, stylistically marked and stylistically neutral words. The expressions taken from a polylogue can be either used in any situation or limited to specific conditions of communication.

The polylogue is presented below. It is taken from the third unit of the pre-intermediate student’s book. To save some space, several parts of the text are omitted. The polylogue aims at introducing several topics: television, eating out, a keep-fit program, etc. There are stylistically neutral words, key words and sentences which are typed in bold, and some grammatical structures: the superlative forms of the adjectives, Past Simple and Present Perfect Tenses.

<table>
<thead>
<tr>
<th>Table 2 The polylogue ‘It’s a small world’</th>
</tr>
</thead>
</table>

**IT’S A SMALL WORLD**

In a few minutes the results of the semi-finals will be announced. The official ceremony is being televised. A lot of VIPs are present in the TV studio.

**1. THE BEST AND THE MOST**

The Chairperson: Ladies and gentlemen! I’m happy to announce the results of the semi-finals. The winners are these brilliant people: well-educated, well-read, and well-informed. Give them a hand! We appreciate your effort, your talent and your desire to win. We have prepared special awards for all the winners. It’s for you, dear TV-viewers, to decide which title each of them deserves. The titles are as follows: the wisest, the smartest, the quickest, the brightest, the bravest, the most deprived (adj.) – lacking adequate food, shelter, education, etc.
talented, the most creative, the best-educated, the most ambitious, the best memory, the most promising, the best sense of humor, the most sociable, the most hardworking.

- We will analyze your opinions and let you know the results in 30 minutes. Stay with us.

*Half an hour later. At the end of the awards ceremony.* <…>

### 2. TASTES DIFFER

**At the club restaurant.**

*Waiter:* Good evening! Would you like a table by the window?

*Joy:* Yes, please, but not too close to the entrance.

*Waiter:* This way, please. Here’re the menus.

The waiter hands a menu to each customer and comes back in a few minutes.

**Are you ready to order?**

*Terry:* I think we are. <…>

*Giovanni:* Only vegetables? *Do you have to be on a diet?*

*Tony:* Poor thing! You are fasting! It must be torture.

*Christina:* *Nothing of the kind!* I enjoy it.

*Giovanni:* Tastes differ.

### 3. IT’S DELICIOUS!

*Waiter:* Here are your drinks and starters.

*Terry:* Thanks. *This is to our victory!*

*Dinah:* The champagne is superb!

*Waiter:* *No wonder.* It’s made in France.

*Mary:* The salad is delicious! I like the dressing most of all. It’s hot and spicy.

*Kate:* I adore French cuisine! <…>

### 4. IT’S A SMALL WORLD

*Joy:* The other day I interviewed a popular dietician. We spoke about fast-food, junk food, and all that stuff, you know.

*Tony:* Did he tell you anything new?

*Joy:* I learnt a lot, especially about his keep-fit programme. <…>

*Giovanni:* Fancy him turning up here, in London, after so many years!

*Emily:* It’s a small world indeed.

A polylogic way of text composition requires several topically coherent sub-dialogues, for example, checking in a hotel involves a small talk with the receptionist about the weather, travel and transportation questions, or restaurant and sightseeing information. Learning this polylogue, students both work independently and cooperate with each other in order to practice reading, listening and speaking (e.g. to role-play checking in the hotel). Roleplaying, students easily memorize a polylogue, in particular, repetition and intertextual inclusions.
3. Repetition

The role of repetition in learning a foreign language is evident. In general, memory performance benefits from the repetition. Texts as the main elements of a coursebook consist of repeated words and sentences, which are spaced apart in time.

On average, a coursebook contains 7-10 units. There are grammar points and key vocabulary in each unit. The learning process is more efficient and effective if key vocabulary from the first unit is repeated in the worksheets and tasks of the following units. Students revise key vocabulary while reading some texts from the second or the third unit. For this reason, an individual unit should contain key vocabulary that is subsequently repeated.

The same rule applies to studying grammatical structures and relations. For example, in the first phase of the foreign language acquisition that starts from the first lesson, students use the subjunctive and repeat such sentences as ‘If I had any free time, I would be here’ or ‘If I were you, I would do the same’. In the second phase that starts at the seventh lesson, students already know the meaning of these sentences and they analyze the subjunctive mood, study verb forms and reflect upon its definition. By the time students analyze the subjunctive, they have already studied the usage of present and past tenses and verb forms in the indicative mood and repeated some sentences in the subjunctive mood. Consequently, in the third phase, students differentiate verb forms without confusion. Hence, a teacher may overcome confusion if students repeat the same sentences ‘If I had any free time, I would be here’ or ‘If I were you, I would do the same’ as examples of the subjunctive mood during the first two phases: synthesis and analysis. Therefore, repetition, which is spaced apart in time, facilitates learning a foreign language. Vocabulary and grammar activities and texts should be designed implementing the principles of task-cycling and spaced retrieval.

Repetition can be presented vertically and horizontally. Within a coursebook, a horizontal line includes repeated rhythmic units that harmonically influence students’ perception. Being spaced in time, repetition has the form of a spiral.

A vertical line includes lexical and syntactic repetition within a text. A polylogue is a text that includes repeated lexical and syntactic structures which create a harmonic rhythm that enables key words and sentences to be recycled.

The polylogue presented above (Table 2) includes 1629 words, 373 key words and 25 repeated lexico-syntactic units. Some of the repeated key elements are presented on a separate page of the coursebook. The example of the page layout that includes some key elements (word combinations and sentences) is given below (Fig. 1).

To clarify the idea of horizontal repetition, the key elements should be traced. For instance, one of the topics of the polylogue is ‘Health is above wealth’. It is an English proverb. It is considered as an example of epistrophe from the stylistic point of view. This device creates a rhythm that helps students perceive and memorize the proverb. ‘Health is above wealth’ can be easily found on the title page of the unit (Fig. 1) and it is also presented as the title of the text in reading comprehension section (Table 3).
Joy Royal: What are the basics of your Keep-Fit Programme, Dr. Lucky?

Dr. Lucky: My theory is very simple. Stop overeating, give up smoking, do sports, harmonize your mind and body - this is the way to healthy life.

On the title page of the unit, students come across the other key elements as ‘keep fit’ and ‘give up smoking’, which were mentioned twice in the polylogue. Due to the process of retrieving, students easily remember key elements, read for gist and do post-reading activities, such as ‘agree or disagree with the statements’.

**Table 3** The text ‘Health is above wealth’

<table>
<thead>
<tr>
<th>Joy and Mary’s story about Mr. Lucky’s unbelievable change impressed everybody. A lot of readers are eager to know more about the famous dietician’s keep-fit programme. We are grateful to Ms. Joy Royal for the permission to publish her interview with Mr. Lucky in our magazine.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEALTH IS ABOVE WEALTH</strong></td>
</tr>
<tr>
<td>Joy Royal: What are the basics of your Keep-Fit Programme, Dr. Lucky?</td>
</tr>
<tr>
<td>Dr. Lucky: My theory is very simple. Stop overeating, give up smoking, do sports, harmonize your mind and body - this is the way to healthy life.</td>
</tr>
</tbody>
</table>
Horizontal repetition can be described as spaced repetition. Many students take advantage of spaced repetition because they acquire and retain vocabulary and grammar rules in optimum intervals.

Vertical repetition is mainly word/sentence repetition or synonyms within one text. It makes the text coherent and helps students perceive the internal structure of a text.

In order to figure out what kind of internal structure students perceive, a calculation should be carried out. Firstly, the total amount of words in the text should be found. Secondly, the repeated words should be counted. Thirdly, the proportion of repeated words in the text can be estimated. This ratio should be subtracted from the metrics of the metro-rhythmical matrix. As a result, there is deviation between metrics of the metro-rhythmical matrix and figures which are found out in three-step calculations. The graph depicts the deviation that forms the model of the internal structure of the text which correlates with the semantic text structure. The x-axis represents the intervals of the metro-rhythmical matrix. The y-axis represents deviation.

![The polylogue 'Habit is second nature'](image)

**Fig. 2 A model of the internal structure of the polylogue ‘It’s a small world’**

It can be concluded from the graph that there are a number of repeated words in interval 1. In this part of the text, the author describes the general situation, namely the official ceremony of the semi-finals. The speech of the chairperson, which is presented in the beginning of the polylogue ‘It’s a small world’, is well-prepared and it lacks repetition. In interval 2, the author depicts the protagonists having dinner at a restaurant. The main heroes’ speech is informal. It is rich in repeated words and synonyms. In intervals 3-6, the repetition fluctuates, but does not deviate from the norm of the metro-rhythmical matrix.

To sum up, the vertical type of repetition helps students perceive the internal structure of a text and the horizontal type assists in memorizing the key vocabulary and grammar. Repetition is the basis of text coherence which can be presented at several levels: 1) propositions in a text, 2) the macrostructure or the gist of a text, 3) a coursebook. The same hierarchical structure is peculiar to intertextuality as another self-similar property of a text and a coursebook.
4. INTERTEXTUAL INCLUSIONS

When students read or listen to a text, they use background knowledge. If they do not have the proper background knowledge, reading or listening results in low perception, comprehension and memorization. Intertextuality, therefore, is significant. In general, “intertextuality actualizes self-similar indexical and iconic connection of a text’s parts with each other, a text with precedent texts (and what is more – precedent phenomena), and an author’s texts on the content, structural and genre-stylistic peculiarities levels” (Olizko 2015). Intertextuality “acts as an effective way of reflecting the sense forming process and provides the possibility of split-level interpretation, turning a text in non-linear semantic structure” (Olizko 2015).

Intertextuality is further divided into several types. Horizontally, there are such subtypes as hypertextuality and paratextuality. Vertically, there are intextuality and architextuality. These five subtypes were listed by Gerard Genette (Genette 1997) and later distributed to horizontal and vertical scales by Natalia Olizko (Olizko 2009). Among the devices which represent each type there are:

- parody, spoof, sequel, translation represent hypertextuality;
- acknowledgement, dedication, dust jacket, epigraph, footnote, heading, illustration, preface, title represent paratextuality;
- allusion, quotation, plagiarism represent intextuality;
- a genre and the designation of a text as part of a certain genre represent architextuality.

Both the perception of a text structure and the apprehension of a text meaning involve recognizing words and communication units, as well as deriving the gist of a text. Intertextuality is a tool to structure the information in an effective way, so that it can be easily extracted and comprehended.

The polylogue ‘It’s a small world’ is full of the intertextuality markers, such as proverbs ‘Health is above wealth’, ‘Tastes differ’, ‘To be as hungry as a hunter’, ‘It is Greek to me’ and ‘It’s a small world’. As a reflection of values, proverbs transmit culture. Studying proverbs, students find similarities between cultures that raise tolerance in intercultural communication.

Most of these proverbs are the subtitles of the polylogue. A title or a subtitle as a marker of paratextuality adds some extra layers of meaning. Looking through the subtitles of the polylogue for the first time, students are aware of the main topics of a unit.

The main purpose of the translation that accompanies a polylogue is to eliminate the stressors, such as looking up every word in a dictionary. Communicating in non-stressful situations, students have a positive attitude and easily manage the situation which requires looking up the meaning of a word. When students become advanced at English as a second language, they do not pay attention to the translation.

The relationship between a polylogue and its translation is the representation of hypertextuality. Hypertextual inclusions influence perception in the way that a text derives meaning through its structure and relationship with other texts which are available to students, who develop comprehension skills and interpretive abilities.

Due to intextuality, allusion and quotation connect related sections of the polylogue to each other. For example, the fourth subtitle of the polylogue ‘It’s a small world’ repeats its title. The same expression is reiterated by one of the heroes. Students get accustomed to use this expression in different situations. It leads to memorizing the information relevant to students. To add to it, when students come across this expression, they might want to search for its meaning and etymology. They find out that the title of the polylogue is a quotation ‘It’s a small world, after all!’ by W. Shakespeare (‘Hamlet’, Act 4, Scene 5). Thus, students
become familiar with famous quotations and understand that it is an allusion to a literary work. Quotations by famous writers, poets, and playwrights incorporated into a polilogue form students’ choice of books to read. Allusion to William Shakespeare’s plays, Oscar Wilde’s short stories, Agatha Christie’s whodunits, Stephen King’s novels and movies make the plot of a polilogue captivating and lessons both engaging and beneficial.

Take the polilogue ‘Tastes differ’ for example. The third part of the polilogue titled ‘The thirteenth floor’ aims at introducing and activating a grammatical structure ‘there + to be’, also called an expletive construction that is used to point out presence or absence of an object or a phenomenon. An expletive construction has no meaning of its own. Therefore, it is difficult for elementary students to understand how to use it properly. In order to help students understand and memorize it, the authors of the polilogue made a reference to the plot of the short story ‘1408’ written by S. King. An allusion to a captivating plot helps students memorize the text.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>The polilogue ‘Tastes differ’</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. THE THIRTEENTH FLOOR</td>
<td></td>
</tr>
<tr>
<td>Kevin opens the door of his room.</td>
<td></td>
</tr>
<tr>
<td>K: What is it? <strong>There’s nothing</strong> in the room. It’s empty. Thank God there’s a phone.</td>
<td></td>
</tr>
<tr>
<td><em>(Reads on the phone.)</em> “Front Office – 0004.”</td>
<td></td>
</tr>
<tr>
<td><em>(He dials the number.)</em></td>
<td></td>
</tr>
<tr>
<td>Hello? This is Kevin Kent. You know something is wrong with my room. <strong>There’s no</strong> furniture at all… No. No, there’s no bed. <strong>There are no</strong> chairs or tables…</td>
<td></td>
</tr>
<tr>
<td>Look, I’m not crazy! Come up and see yourself! I’m telling you: <strong>there is no</strong> armchair in the corner, no mirror to the right of the closet…</td>
<td></td>
</tr>
<tr>
<td>No! <strong>There are no</strong> pictures over the couch!</td>
<td></td>
</tr>
<tr>
<td>Are there any lamps on the night tables?</td>
<td></td>
</tr>
<tr>
<td>No! <strong>There’s not</strong> even a carpet! You’re asking me? I’ve been explaining to you for fifteenth minutes: Room 1315 is empty!</td>
<td></td>
</tr>
<tr>
<td>What?! <strong>There’s no</strong> thirteenth floor in the hotel? Where am I then?</td>
<td></td>
</tr>
<tr>
<td>Wait! Don’t hang up! He-elp!!!</td>
<td></td>
</tr>
<tr>
<td>WHERE IS KEVIN?</td>
<td></td>
</tr>
<tr>
<td>S: Where is Kevin?</td>
<td></td>
</tr>
<tr>
<td>Sc: I haven’t got a clue. &lt;…&gt;</td>
<td></td>
</tr>
</tbody>
</table>

Traced in the polilogue, references to the plot and such expressions as ‘**Room 1315 is empty!**’, ‘**There’s no thirteenth floor in the hotel?**’ and ‘**I haven’t got a clue**’ allude to the short story. Allusion enhances the students’ ability to understand the polilogue.

All types of intertextuality assist in developing students’ abilities to recognize literature works and to reflect upon a plot, to derive the gist of a text and to memorize it effectively.
5. CONCLUSION

Effective learner-centered teaching and communicative learning require a text that is specifically tailored to the students’ background, needs and interests. For this purpose, a polylogue is presented in a linear form, but has a non-linear structure.

A text structure is formed with a variety of repeated rhythmic units and intertextual inclusions that harmonically influence text perception and memorization. Repetition and intertextuality are presented globally, horizontally and vertically. Self-similar properties form non-linearity of a text structure that is identified at several levels.

Repetition and intertextuality, along with page layout and spaced retrieval, facilitate the learning process. A polylogue provides context for another text, influences students’ potential and helps to improve their abilities to find information and to communicate effectively.

REFERENCES

REPETICIJA I INTERTEKSTUALNOST KAO MODALITETI STRUKTURISANJA I PERCEPCIJE TEKSTA

Ovaj rad bavi se vezom između strukture i percepcije teksta iz ugla jezičko-sinergijskog pristupa i zasnovan je na matematičkoj harmoniji i teoriji intertekstualnosti. Korišćenjem metro-rimičkog algoritma, autor otkriva simetrična i asimetrična, vertikalna i horizontalna ponavljanja, koja harmonijski utiču na percepciju teksta. Na percepciju linearnog teksta uglavnom utiče nelinearna struktura koja postaje očigledna na horizontalnim i vertikalnim nivoima repeticije i intertekstualnosti. Horizontalni tip repeticije podrazumeva rime ekračke jedinice unutar udžbenika, dok vertikalni tip obuhvata leksičku i sintaktičku repeticiju u okviru jednog teksta. S obzirom na vremenske intervale koji je spriječio, repeticija formira spiralu koja omogućava učenicima da lakše usvoje i nauči tekst. Intertekstualnost deli se na hipertekstualnost i paratekstualnost, koje su predstavljene horizontalno, kao i intekstualnost i arhitekstualnost, koje su predstavljene vertikalno. Intertekstualnost je efikasan način interpretacije teksta, koji aktivira prethodno znanje učenika. Ovaj članak pripada široj teorijskoj oblasti usvajanja stranog jezika. Polilog je tekst sa intertekstualnim inkluzijama i leksičkim i sintaktičkim strukturama koje se ponavljaju i stvaraju harmonijski ritam, koji omogućava recikliranje ključnih reči i rečenica. Zajedno sa recikliranjem teksta i prisećanjem koje se javlja u određenim intervalima, polilog sa harmonijskom strukturom dovodi do uspešnog usvajanja stranog jezika.

Ključne reči: percepcija teksta, priscućanje, format stranice, polilog, repeticija, intertekstualnost