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## Punctuation and its Functions in Russian Educational Slide Presentations

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#### Abstract

This paper focuses on the up-to-date issues of graphic text organization of Russian presentation slides of university lectures in different subjects. The serialization, delineation and stylization functions of punctuation and suprasegmental (typographic) devices specifying the linguistic 'uniqueness' of the particular genre/register of the scientific discourse are considered. The specific nature of the use of these devices compared to that of the presentations in English consistent with the preliminary analysis of the communicative intents of the lecturer and the target audience is discussed.

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Keywords: scientific discourse; punctuation; suprasegmental devices; text organization; presentation slide

#### 1. Introduction

Nowadays the studies of the linguistic features in new electronic media are becoming more and more popular (see Bartsch, 2003; Bovtenko, 2005). The importance of using PowerPoint technology in higher education as an aid to delivering lectures as it somewhat can affect the learning process is being vividly discussed in Linguistics and Methodology. The studies in this field are different and the issue is still controversial, however most surveys and students' questionnaire show that it is easier and more interesting to listen to the lectures accompanied by the visual aid (presentation slides) even if the efficiency of using this rather new medium technology has not been proved yet (Russel, 2006).

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PowerPoint presentation is a comparatively new form of communicating, new visual technology available to the lecturer that contributes to facilitating the process of teaching comprising visual and audial impact on the audience. Though according to some of the recent studies presentations mostly add to entertainment purposes and the effect on the quality of communication of this efficient educational medium is unclear (Russel, 2006). Conveying the explanatory and instructional message slides are intended for giving definitions and introducing the key points of the lecture delivered. Formatting slides in PowerPoint lectures must be justified and oriented on the target audience (Shaw, 2012). An electronic presentation, a prepared talk which forms a part of an academic process, is a "particular genre of a scientific discourse" (Bovtenko, 2005). The presentation of a lecture is a medium of visual communication channel through which the material is perceived by the recipient.

Although the content of the presentation is important, the "form wins over content" (Russel, 2006) comprising the features of a typical educational text and a design template. Being a mode of discourse where the writer and reader are not separated in time and space PowerPoint presentation demonstrates its specific features. The amount of information that must be presented is high but the compression is used not to overload the slide with text and punctuation devices not to spoil the right text perception (Shaw, 2012). The information presented in lists with items and sub-items and imagery is easy to perceive and process.

The punctuation and typographic devices are an integral part of the slides since the presentation is a particular genre of electronic medium which uses little text and much graphics and imagery (Bovtenko, 2005). In Russian linguistics such kind of texts are called 'creolized', i.e. containing verbal and non-verbal characters that contribute to the better presentation of material. Modern punctuation practice is inconsistent at present as, on the one hand, IT technology provides a wide range of opportunities of text organization within a slide, and on the other hand, the use of these devices and effects are not strictly codified. The problem of punctuation standards is not considered in Russian Linguistics. There are no explicit rules on how to use text organization in presentation of lectures in different subject areas. Typographic theory was "primitive" in the 1950s (Waller, 1980) and now when the number of devices and options of using them is significantly wider the rules or guidelines are still fuzzy. According to S.Patt, punctuation marks convey the paralinguistic information and the communicative value of punctuation is referred to as "guide functions" (Sebastian, 2013). These factors need to be considered when studying the graphical structure of the lecture presentations.

Thus, the questions we aim to answer in this paper are as follows: how the punctuation and typographic devices are used in presentation slides intended for the students' audience (technical sciences); what combination of devices is used in Russian lectures comparing to those composed in English, and whether the use of devices specifies the genre of the electronic presentation. The challenge is to present the tendency of the use of punctuation and typographic devices in presentations of Russian lectures as a specific feature of a separate genre of the scientific discourse.

The paper is structured as follows. The introduction presents the state of the art of the punctuation problem in modern practice in scientific educational discourse and the motivation of the undertaken investigation. In Section 2 the choice of methods and techniques relevant for the current research is motivated, the materials used for the analysis are discussed. Section 3 gives an overview of the use of segmental and suprasegmental punctuation devices in the text body of the presentation slides made for educational purposes. In conclusion the interpretation of the obtained results consistent with the venues for further studies is suggested.

#### 2. Methodology and materials

The patterns of punctuation and text organization in PowerPoint slides were studied using the traditional observation method. The database of presentations in Russian and in English that were randomly selected was 25 (340 slides in total). The data were collected from the websites of the Russian and foreign universities, among which the websites of Moscow State University, Tomsk State University, Southern Federal University, Ohio University, Harvard University and others can be mentioned. Educational slide presentations in English are considered to demonstrate the peculiarity of the graphic structure of the Russian slides. In this paper, we use a descriptive approach consistent with the elements of comparative analysis to demonstrate the correlation between these two linguistic media that reflect different linguistic cultures and reveal the specific nature of the Russian punctuation practice as compared to that of the English presentations. Upon the collection of data they were investigated using

the techniques of interpretation and context analysis, which allowed to classify all the presentations into three main types according to the consistency and variety of using punctuation and typographic patterns. The genre of a university lecture intended for general, non-professional audience was chosen as an integral part of the scientific discourse which needs to be thoroughly studied in the context of the fast growth of new technologies and development of electronic media as communication channels. The instructional and educational purpose of this type of writing communicating a certain message to the students, which can be positive or negative and the use of punctuation and typographic devices and their combination is one of the factors specifying the reader's perception, allows to analyze a small but an important part of modern scientific prose.

#### 3. Punctuation functioning

The necessity of information compression within a slide with no loss in its content and thereby the simplification of the syntax specify the use of devices, techniques and effects in electronic presentations. The chosen PDF format does not allow to study numerous multimedia resources, which helps to focus on pure graphic linguistic aspects. Imagery layout and animation effects are not taken into account as they are not directly related to the problem of linguistics, mostly the effectiveness of perception as psychological and typographic issues. The punctuation and graphic organization of a printed or electronic scientific text as a complex phenomenon must be studied both at a macro- and micro-level. Thus, in this paper, segmental (common punctuation marks) and suprasegmental (bold, italics, spaces, etc.) items providing graphical and spatial arrangement of the text segments are considered.

The use of common punctuation marks, applicable to an ordinary printed text, is specified by a number of rules and conventions that the author may choose to follow and thus are quite easy to describe (Kirkman, 2006). In written speech there is a tendency of using 'strong' punctuation marks instead of the 'weak' ones, i.e., a comma is used widely instead of colons and dashes covering most of their functions. In Russian presentations, the full range of punctuation devices in the body of the text can be observed. Intra-sentence punctuation marks in the body of the text are conventionally used complying with the rules presented in modern punctuation guides and manuals. However, their functional potential in the body of PowerPoint presentations is reduced to their formal functions, i.e. a colon usually (91 %) introduces a vertical or horizontal list of items, a comma and a semicolon separate the enumerated elements, a dash separates the subject from the predicate expressed by nouns to introduce the definitions and explain the notions relevant for a certain domain of studies. A dash is often (35 %) confused with a hyphen like in most modern printed texts. A full stop in its delineation function often used in all other types of printed scientific texts is doubled and half-replaced by a vertical space as the most effective and expressive means (45 %). End stops such as a full stop, comma and a semicolon, even a colon itself are often omitted in vertical lists of items and remarks of the author represented by syntactically incomplete sentences at the bottom of the slide.

There are no consistent rules for using graphic devices not only in presentations but in scientific discourse in general, only the guidelines, which significantly complicates the research. The semantic status of these devices is evident in most cases; however, the inconsistency of using them makes the situation unambiguous and the overuse of such means can communicate a negative message to the audience which can thereby effect the perception of material.

Punctuation devices of macro- and micro-level perform the same functions and the results show that common punctuation marks are likely to be replaced by suprasegmental items (e.g. no end stops).

The interpolation function of the devices is presented by micro-text level punctuation, namely parenthesis, commas and dashes common for an ordinary printed text in the scientific discourse.

Most differences found in a design of a slide and a printed text are observed when the devices perform serialization, delineation and stylization functions. The function of serialization plays an important role in presenting the material in slides in vertical lists. The strong tendency (47% of slides) is the omission of them at the end of the items, thus the delineation function is performed by suprasegmental elements. The delineation function of a full stop, which use is the most consistent in ordinary scientific writing, is not stable (45 %).

In order to demonstrate how the end stops function in educational slide presentations we choose to suggest models representing the use of the punctuation devices. All the punctuation including the capitalization and bold are taken from the original Russian PowerPoint presentation slides. The underlining shows the presence or omission of the mentioned device.

# Heading of the slide Introduction of the formula: Formula\_ Introduction of the formula: Formula\_

Fig. 1. A model representing the omission of a full stop after the formula in Russian slides.

The stylization function is the most important. This function prevails. Capital letter text is used rarely (10%). The use of italics is now widespread (40%) and its largest part is in the texts of Mathematics or Computer Science where it is common to use it to introduce the definitions. Underlining (30%) is used in Russian presentations, whereas in presentation slides in English this device is rare. The combination of devices, namely italics, bold, and color variation is common, mainly bold and color for showing hierarchy in a slide.

In spite of the fact that we deal with the scientific discourse in this work, the semantic punctuation marks are used to draw students' attention (30%): exclamation and question marks and three dots. Performing the stylization function they are used as an interactive tool requiring some feedback from the audience illustrating the unique interactive nature of this genre of scientific writing (Fig. 2).

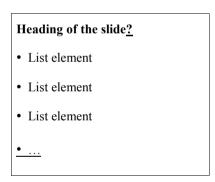


Fig. 2. A model representing the use of a question mark and three dots as an interactive tool in Russian slides.

Depending on how consistent and justified the use of graphic devices within a text body on a slide is, there can be conventionally distinguished three types of presentation slides: 1) with the text organization close to a printed text (Fig. 3), 2) graphic arrangement close to the oral speech or summary of the lecture, 3) successful and sensible combination of previous types and thereby easy for perception. The third type seems to be the most effective for the teaching process as a recipient is the students' audience.

#### Heading of the slide.

- 1. Sub-heading 1.
- 2. Sub-heading 2.
- 3. Sub-heading 3.

Fig. 3. A model of the redundant use of a full stop in its delineation function in Russian slides.

Russian presentations of lectures, lecture notes, are very close to a good student's summary of the lecture given organized in the right way. Especially when they are compared to the English ones that are mostly bullet-pointed texts with incomplete sentences giving the summary of the presented material in a lecture providing a large scope of ideas and encouraging students to look for detailed information in supplementary materials. The block of texts, a chain of definitions and theorems are common for the slides in Russian. The graphic organization of most English presentations is better structured. The use of segmental devices is limited, whereas the use of suprasegmental devices (horizontal and vertical spaces, colour, highlighting, etc.) is consistent and based on bullet-pointed lists of items.

#### 4. Conclusions and discussion

The obtained results suggest that an electronic presentation of a lecture is a genre of scientific discourse where the graphic text organization is one of the key elements. The communication channel and the fact that in this form of written text representation the sender and the receiver are not separated in place and time, which specifies the 'simplification' of the syntax on the slides and the relative uniformity (the absence of variety) of document design in the punctuation of composite complexes such as vertical bulleted lists, formulas and image description and amendments to the information presented on a slide. The punctuation of the slides reveals its multilevel non-linear structure with the priority given to the devices and effects that put emphasis on certain text segments demonstrating text hierarchy: graphics, color, imagery. The functional potential of common punctuation marks is reduced to their formal, non-semantic functions. As a result, the intra-sentence analysis is not of high interest when studying the graphics of the presentation slides.

The most common devices perform the stylization (size, style, color and layout variation; quotes, exclamatory and question marks are used rarely) and delineation (capital letter indicating the beginning of the line if the previous sentence is not complete, full period, comma, semi-colon, colon; headings) functions. The use of exclamatory and question marks and three dots contributes to the interactive nature of PowerPoint presentations so that it becomes not a one-way transmission of information to the reader requiring a certain type of feedback. It is interesting to note that these very functions have the equivalents in spoken language. The inconsistency and the absence of strict rules for text organization in this electronic medium shows the traces of naive punctuation in it. The latter implies that an electronic presentation is a genre the macro- and micro-level punctuation of which combines the features of the science discourse, on the one hand, which is rather formal and well structured, and the features of oral speech and 'natural' speech, i.e. the 'naive' punctuation.

The inconsistency in the use of micro- and macro-text level punctuation devices in Russian presentations can be specified by the general instability in Russian punctuation practice and fast evolution of typographic devices giving the lecturer more opportunities for stylization. The concept of punctuating presentations of a Russian native speaker is based on the knowledge of punctuation of a printed Russian text and presentations given in the international English language. Russian presentations, being rather close to a printed text, can be used as a self-study material, whereas most presentations in English are just a tool to display summarized key information which needs further clarification or supplementary reading. The differences in text organization within a slide observed in presentations

in Russian and in English can be explained by different mentality of the audience which is also must be considered when analyzing the effectiveness of chosen forms of lecture representation.

The obtained results contribute to the punctuation theory and the investigation of different genres of the scientific discourse: however, they still need further description and verification using methods of psycholinguistics and cognitive linguistics that will allow to study the pragmatics of the given phenomena and to estimate the effectiveness of choosing a certain form for presenting information on the slides depending on the target audience.

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