
THE VERB AND ITS ROLE IN THE PERCEPTION OF THE CZECH SENTENCE STRUCTURE⁽¹⁾

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SLOVESO A JEHO ROLE VE VNÍMÁNÍ ČESKÉ VĚTNÉ STRUKTURY

Článek je založen na případové studii, jež byla provedena u skupiny studentů češtiny v bakalářském studijním programu, kteří dosud neabsolvovali kurz morfologie a syntaxe češtiny. Metodou analýzy krátkého textu a dotazníkového šetření je sledováno jejich vnímání struktury věty, konkrétně schopnost odvodit, které formální prostředky vyplývají přímo ze struktury věty, a které naopak představují odraz skutečnosti. Podstatou výzkumných otázek není testování znalostí morfologie či syntaxe, ale právě míra vnímání struktury věty, a tím i samotných slovních druhů.

Klíčová slova: případová studie; morfologie; syntax; struktura věty; slovní druh

INTRODUCTION

The current research, the results of which are presented in this text, builds on previous research in the form of the case study elaborated in 2019, *How the Czech Sentence Works and How to Know It*, presented at the international symposium *One Way-Three Languages*, organized by Faculty of Arts, Charles University in Prague, on 26–29 April 2019. The paper from this conference was then published in the collective monograph (Šebesta – Hrdlička eds., 2020).

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The first part of the current article summarizes the relevant results of the original case study, and namely draws attention to the hypotheses that emerged from its results. Those hypotheses gave rise to the new research, which has a combined character—it is a more extensive case study, but at the same time it also brings quantifications of the obtained data. The second part of the article explains the motivation for undertaking a further, and at the same time a follow-up, research and sets out the main research questions for a larger case study. The third section explains the framework and format of this case study and characterises the set of respondents. The fourth section presents the results of the analysis namely in the form of statistics and graphs, and comments on them, including the context of the subsequent discussion. The fifth section is devoted to conclusions and summaries of the research.

1 BRIEF OVERVIEW OF THE ORIGINAL CASE STUDY RESULTS

Theoretically, the original study entitled *How the Czech Sentence Works and How to Know It* (cf. Bednaříková 2020) was based on the notion of morphology as a study of the internal structure of words (cf. Aronoff – Fudeman 2011; Haspelmath – Sims 2013; Bednaříková 2017). At the same time it was based on the assumption that morphology is perceived intuitively. Thus the observation of the the specific linguistic material used in the case study may have contributed to understanding morphology. The main aim was to determine and compare the level of perception of sentence and word structures in two groups of university students who studied the Czech language as their major, but who were still at the beginning of their studies, i.e. had not yet taken the courses in morphology, syntax, or morphosyntax. The case study involved a group of Chinese students and a group of Czech students (the Chinese group had an entry level of A2 or A2+ in Czech language according to the CEFR). Using a questionnaire method working with

short text analysis, the case study attempted to determine the degree of perception of sentence and word structures, especially the ability to deduce which formal language means stem directly from a sentence and which in turn are expressions of reality.

The results of the comparative case study showed that in a given, albeit very limited, sample of two groups of respondents, i.e., students of the bachelor's degree programme in Czech philology who had not yet taken courses focused on morphology and syntax of Czech, Chinese students showed better orientation in sentence structure, while Czech students perceived the structure of Czech words better. Chinese students were more capable to recognize the necessary complements of a verb that result from its semantics and, conversely, to differentiate the adverbial determiners that are not obligatory in a sentence. They also proved to be much better at perceiving the action perspective of a given short text. They were able to determine the number of actions contained in a sentence and moreover, to identify the ways in which an action is expressed, while at the same time identifying words that have the capacity to carry the meaning of the verbal tense.

The research questions of the original case study concentrated on whether we are able to infer word form from sentence structure, whether we are able to identify those word forms that do not emerge from sentence structure, and whether we are also able to perceive the real action perspective by perceiving the sentence structure. There was no clear answer to those questions in the limited research sample. In the group of Czech respondents more appropriate answers were obtained concerning individual grammatical categories and their source relevance to sentence structure vs. to the reflection of reality. However, in the practical perception of sentence structure, which should come from linguistic intuition, the Czech respondents, in contrast to the Chinese respondents, often failed. In terms of perceiving the action perspective, Czech students even failed to make use of their natural perception of their own mother tongue. Chinese students were far more successful in this respect. The Czech students

were mostly counterintuitive and resorted to uncreative and mechanical sentence analysis.

For possible further research based on a much larger amount of data and its quantitative processing, two preliminary hypotheses could be established on the basis of this case study:

1. The verb plays a crucial role in the perception of Czech sentence structure.
2. The term “bare clause” (or “basic compositional pair”) distorts the natural perception of the Czech sentence structure.

2 MOTIVATION FOR THE CURRENT CASE STUDY, RESEARCH QUESTIONS

The first of the hypotheses named in Chapter 2, which emerged from the primary comparative case study, inspired the subsequent research, which was conducted on a much larger sample of respondents. This hypothesis also gave the name to the whole project, namely *The Verb and Its Role in the Perception of the Czech Sentence Structure*. Even a very small, numerically limited research sample suggested that a large proportion of Czech respondents were unsuccessful in perceiving the Czech sentence structure. The research therefore focused only on the Czech respondents and attempted to determine whether this inability has a greater basis in a sample several times larger. The first part of the new research concentrated on the role of the verb in the perception of the Czech sentence structure. The following planned research will observe and test the competence of the perception of the action perspective.

In order to enable the validation of the results in the original study, this research chose the same short introductory text for analysis and set the same test questions for it (a smaller number of them). Two of the original research questions were also adopted, namely:

1. Are we able to infer the form of a word from the structure of a sentence?

2. Are we able to identify word forms that do not follow from sentence structure?

3 FORMAT OF THE CASE STUDY, THE RESEARCH SAMPLE

The case study chosen for this project is one of the methods of qualitative research. Its aim is to collect data, but not primarily for relevant statistical purposes as in quantitative research, but for a more detailed study of the phenomenon in question, and thus for answering the predefined research questions. Nevertheless, the amount of data makes simple statistics possible.

The case study, like the original study, has the character of both an instrumental study, i.e. a study that seeks to understand the theoretical questions with which it enters the research process as a basis, and a collective study, because it is based on the premise that by comparison we can reach a deeper understanding of the phenomenon in question. This case study also takes on the character of a study that is partly testing but predominantly exploratory, since it also results in the posing of possible hypotheses as a basis for further research based on a large amount of data.

The method chosen is the questionnaire method. A common characteristic of all respondents is the study of Czech philology in a bachelor's degree programme. Another common characteristic is that none of the respondents has taken a specialized course in Czech morphology and syntax. The questionnaires themselves were not about testing theoretical knowledge of Czech morphology and syntax (or word formation), but about trying to grasp the level of perception of sentence structure, and thus actually the structure of the word. At the same time, the case study attempted to show how students understood the role of inflection in sentence structure. The purpose of the questionnaire was communicated to the students in advance, so they were in no way stressed by the fact that it was perhaps test-

ing and evaluating their academic performance. The total number of respondents was 180.

4 RESULTS OF THE CASE STUDY ANALYSIS

As mentioned above, the introductory text for the analysis was the same as in the previous study:

Moje nová asistentka hledala ty ztracené dokumenty celý den.

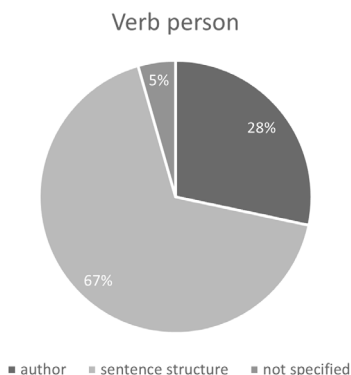
There were a total of 5 test questions related to this text:

1. Why does the verb *hledala* have this form? Who (or what) decides this?
2. Does the word *hledala* affect the form of another word in the sentence?
3. Why does the word *asistentka* have this form? Who (or what) decides this?
4. Does the word *asistentka* affect the form of another word? If so, which one and how?
5. What is the form of the word *den*? Does its form follow from the structure of the sentence?

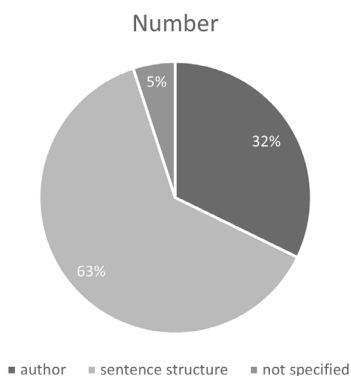
All the questions were directly related to the text. Some of the questions were the so-called closed questions, so the respondent had a choice of two options (they were yes/no questions). Other questions were open-ended, thus allowing free choice of answers (the so-called completion questions). Some questions were a combination of both types. However, all questions were chosen to help analyse the text and to reveal the ability of the respondent's perception. The open-ended questions mostly started with WHY (or HOW).

4.1 THE VERB *HLEDALA* AND ITS FORM

The first question focused on the verb *hledala*, which as a *verbum finitum* has the constitutive role, i.e., plays the role of a predicate in the sentence. In explaining where its form came from, the question was whether it was the author's choice (hence the grammatical categories have a reflective function) or the fulfilment of the structure of the sentence (the grammatical categories follow from its structure, hence they have a syntactic function).

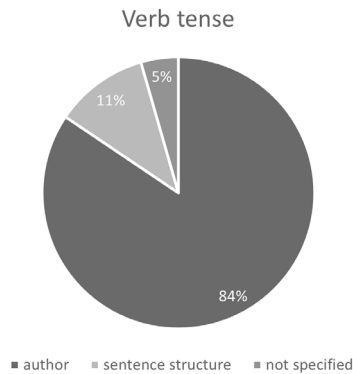


Graph 1

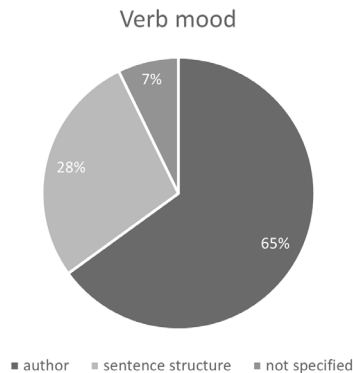


Graph 2

As seen in Graphs 1 and 2, most of the respondents were able to reveal that the choice of the verb person and number are a matter of sentence structure and that these grammatical categories thus have a syntactic function resulting from the congruence of subject and predicate. This answer may arise from teaching orthography concentrating, to a large extent in primary education, on the congruence of subject and predicate in the context of writing i/y.

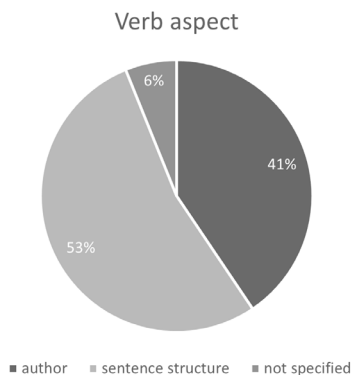


Graph 3



Graph 4

As far as verb tense and verb mood (cf. Graphs 3 and 4) were concerned the respondents mostly left the decision up to the author, so they saw them appropriately as reflective categories. However, nearly half of respondents misunderstood the reflective role of the verbal aspect, leaving it wrongly to the influence of sentence structure (cf. Graph 5).

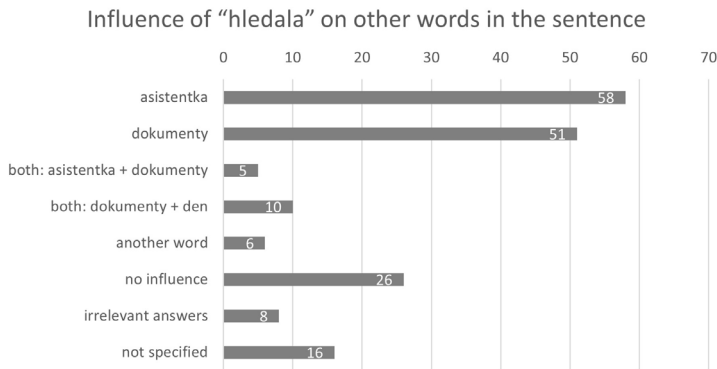


Graph 5

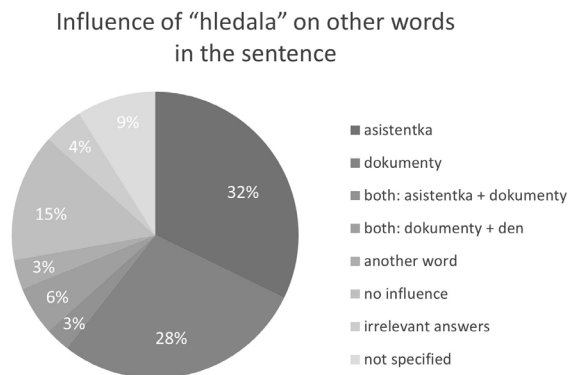
4.2 THE VERB *HLEDALA* AND ITS ABILITY TO AFFECT THE FORM OF ANOTHER WORD

The third question is related to the role of the verb in the Czech sentence. In classical valency syntax description (cf. Daneš – Komárek 1975; Daneš – Grepl – Hlavsa 1987) the finite verb form (*verbum finitum*) is the central element of the sentence. Although the students participating in the case study have not yet undergone the course of valency syntax nor have they taken any syntax course at all, this knowledge was not needed, as it was rather a question of whether they were aware that the verb, due to its semantics, requires an additional complement giving it a certain form.

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Graph 6a

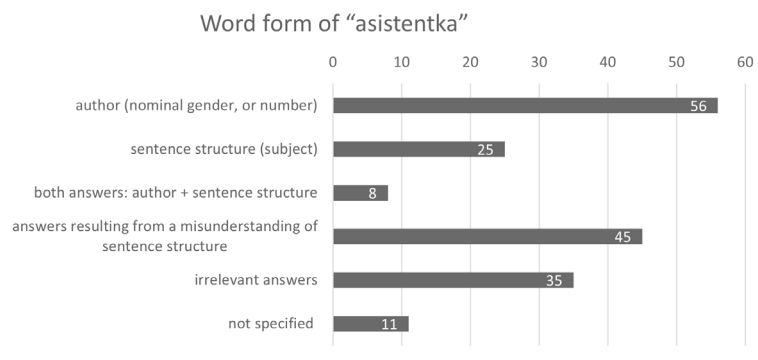


Graph 6b

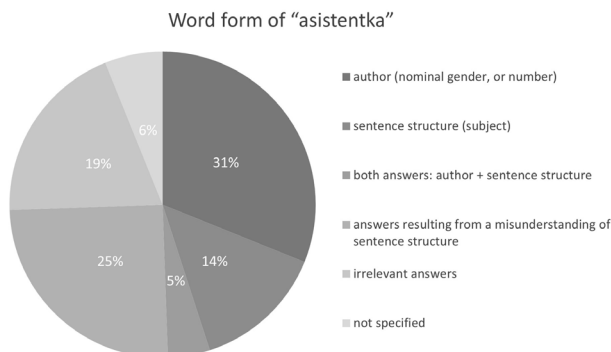
As the Graphs 6a and 6b show, more than almost three quarters of respondents did not perceive at all, not even intuitively, that the semantics of the verb *hledala* necessarily needs a complement, here expressed as the accusative plural of the noun *dokumenty*. On the other hand, a third sought its influence on the form of the subject (*asistentka*), thus completely reversing the perspective of the perception of sentence structure. 15% then claimed that the verb had no effect on any other word in the sentence.

4.3 THE NOUN *ASISTENTKA* AND ITS FORM

The third question, again, is related to the valency of the verb or/and to the function of the noun in this form, but the answer could also be directed to the reflective function of the nominal gender and number. Moreover, it was again a question about its form—primarily about who/what determines it, whether the author or the sentence structure. Thus, there was a wider range of response options—about 30% of the students chose the natural genus along with the reflective function of the number, and 45% responded to the function of the word as the subject of the sentence.



Graph 7a

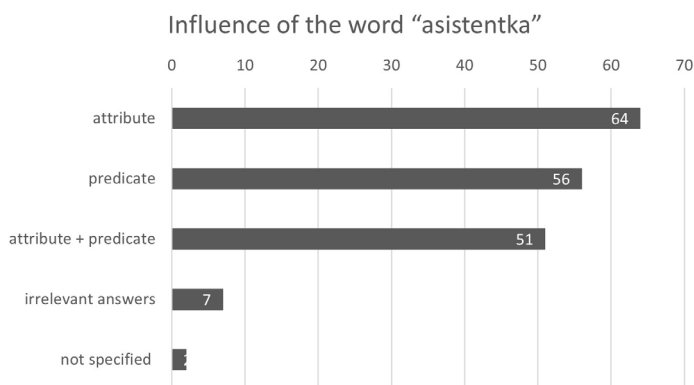


Graph 7b

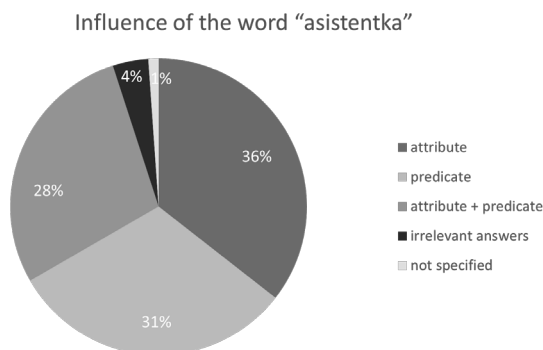
As both graphs (Graphs 7a and 7b) demonstrate, respondents commenting on the natural genus and number reflective function were successful in their responses, but this was not the case for respondents noting the subject function. More than half of them (and 25% of the respondents in total) answered that the form of the noun in the subject role is determined by the form of the verb (cf. the comment on perspective reversal and responses to the verb *hledala* questions above–5.1). These answers mostly stem from a misunderstanding of the sentence structure.

4.4 THE NOUN *ASISTENTKA* AND ITS ABILITY TO AFFECT THE FORM OF ANOTHER WORD

The fourth question concerned simultaneously the determination of the noun by means of possible pre-modifiers and the related congruency and also the relationship between subject and predicate (and the related congruency). In answering, the respondents could engage their intuitive perception of reduplicated information about some grammatical categories (congruency) in relation to both pre-modifiers of the noun in question (congruent attributes) and in relation to the verb in the verbum finitum form (VF).



Graph 8a



Graph 8b

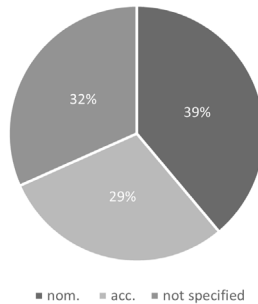
However, the search for words the forms of which are influenced by the noun *asistentka* was relatively unproblematic (see Graphs 8a and 8b). As there could have been more answers, the respondents were divided approximately into thirds. However, the majority were good at identifying the predicate *hledala* (36%), the congruent attributes *moje* and *nová* were identified by another third (31%), and just less than a third (28%) revealed both the predicate and the two pre-modifiers. Only a very small proportion of respondents gave irrelevant answers.

4.5 THE NOUN *DEN* AND ITS FORM

The fifth question seems to be the most difficult one, but the natural perception of sentence structure can reveal that it is neither an obligatory verb complement nor a subject. Substitution with another temporal expression (e.g. *jednu hodinu*) can immediately show the correct answer, also concerning the form of the word, namely accusative.

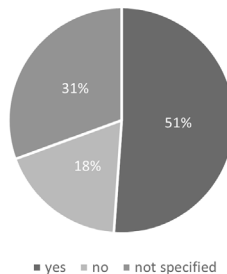
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Word form of "den"



Graph 9

Does the word form "den" follow from the
structure of the sentence?



Graph 10

The survey passage concerning the word day ended with a rather surprising result. As the Graphs 9 shows, 71% of respondents either misidentified the case, believing it to be nominative, or were unable to determine the form of the noun at all. Graph 10 again reveals that 82% of the students were not able to determine that it was a word that did not follow from the sentence structure. More than half of the students (51%) thought it was a matter of sentence structure, while 31% were unable to answer the question at all. Thus, it is not only that they have incorrectly determined the form of the word,

but mainly that they have completely misunderstood its status in the structure of the analyzed sentence.

DISCUSSION AND CONCLUSIONS OF THE CASE STUDY

The research in the form of a case study was based on two preliminary hypotheses that emerged during the course of the original, rather limited in number, case study. The analysis of the data from the questionnaires from 180 respondents already allows some generalizations and at the same time justifies to some extent working with both hypotheses.

Previous studies have focused mainly on research on students' knowledge of syntax and their ability to solve syntactic tasks (cf. Chvál – Šmejkalová 2018), or on research on high school students' ideas about relations in Czech sentences (cf. e.g. Štěpáník 2014). While, for example, the authors Chvál and Šmejkalová state that primary school students have sufficient knowledge to solve syntactic tasks (e.g. the tests examined students' abilities to transform non-sentences into sentences), Štěpáník concludes that the traditional teaching procedure does not sufficiently reflect the students' communicative experience and their existing knowledge, does not strive for its real understanding, and also does not meet the requirements of modern Czech language didactics, as it neglects the communicative goal. This conclusion is very much in line with our own research.

The first of our hypotheses is that the verb plays a crucial role in the perception of the Czech sentence structure. This hypothesis was mainly addressed in questionnaire questions 1, 2 and 5, examining the role of the verb *hledala* in the sentence structure. Although the answers to these questions were not based on syntactic knowledge but on natural linguistic intuition, a significant proportion of respondents were unable to use this intuition. This proves the essential role of the verb in a sentence. Without understanding it, it is impossible to perceive the structure of the sentence.

The second hypothesis goes more into linguodidactics, suspecting that the term “bare clause” (or “basic syntagma”) distorts the natural perception of Czech sentence structure. The justification for building this hypothesis can be strengthened by some studies that focus on the research of learners’ preconceptual equipment to determine the so-called basic syntagma (Štěpáník 2020). All five questions in the questionnaire were involved in proving this hypothesis. The strongest evidence, however, were the second and the fifth questions, focusing on the nouns *dokumenty* and *den* in accusative, which demonstrated conclusively the absurdity of the so-called bare clause.

The results of the case study and the data obtained not only confirm both hypotheses, but also support the earlier findings that the grammatical concept of the so-called bare sentence (primary syntagma), which forms the basis of sentence analysis in primary, lower-secondary and even upper-secondary school, does not suit the natural perception of sentence structure, degrading in this perception even the verb from its crucial role in the sentence.

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