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# Word order of the preterite auxiliary in the Old Czech translation of the Book of Psalms*

**Abstract**

This paper presents a word order analysis of the present tense forms of the Old Czech verb *býti* ('to be'), also known as the preterite auxiliary, in *Žaltář wittenberský* (Wittenberg Psalter). The results reveal a variation in the position of the preterite auxiliary within the clause. Specifically, the auxiliary frequently appears in the second position in the clause, similar to Contemporary Czech. However, in a significant number of cases, it also appears further in the clause, mostly following the past participle. This variation is attributed to several factors identified here, namely the influence of the Latin source text, as well as the length of the initial phrase (prosodic effect).

**Key words:** Old Czech; clitics; word order; second position; Psalter; Latin influence
**Number of characters / words:** 33 975 / 5 480
**Number of figures / tables:** 10 / 2
**Secondary language:** Old Czech; Latin

* This contribution was supported by the Masaryk University in Brno, project *Lexikon a gramatika češtiny III – 2023* (Lexicon and Grammar of Czech III – 2023, MUNI/A/1249/2022).

## Introduction

In this paper, I investigate the word order of the present tense forms of the Old Czech (OCz) verb BÝTI 'to be.' The present tense forms underwent a prolonged process of grammaticalization, and thus take part in numerous syntactic structures, each bearing distinct grammatical meanings.[1] Due to limited space, I have set aside cases of less grammaticalized forms and focus solely on the preterite auxiliary, commonly described as a clitic.[2] An illustration of the OCz preterite auxiliary is provided in (1).

(1) *[tvé rány bolestivé]* ***jsú*** *uzdravili*
your wounds hurting be.PRS.3PL healed.PTCP
'They have healed your hurting wounds.' (*PasMuzA*, p. 21)[3]

The clause in (1) comprises five words but only three syntactic positions. This is because the first position is taken by the three-word phrase *[tvé rány bolestivé]*, as illustrated by the square brackets. The grammatical auxiliary *jsú* follows immediately after the initial phrase in the second position. The clause ends with the past participle *uzdravili*, which is the syntactic regent of the auxiliary.[4] The participle thus occupies the third position. Simultaneously, we can see that there is no intervening constituent placed in-between the auxiliary and the participle. This puts the auxiliary and the participle in immediate contact, with the auxiliary placed to the left of the participle, that is, pre-verbally.

[1] For a brief overview, refer to the introductory sections in my previous works: Martin BŘEZINA, 'The Distribution of (Non-) Syllabic Present Tense Forms of the Verb *býti* in the Second-Person Singular in Old Czech', *Listy filologické / Folia philologica* 146/1–2 (2023), pp. 79–110; Martin BŘEZINA, 'Distribution of (non)-syllabic present tense forms of the verb *býti* in the 3rd-person singular in Old Czech', *Linguistica Brunensia* 71/2 (2023), pp. 59–81. In both studies, I largely adopt P. Karlík's approach to the functional diversity of the Contemporary Czech BÝT; see Petr KARLÍK, 'Sloveso „být" v češtině a jinde', in: Eva RUSINOVÁ (ed.), *Přednášky a besedy z XLII. běhu LŠSS* (Brno, 2009), pp. 83–92; Petr KARLÍK, 'Auxiliář', in: Petr KARLÍK, Marek NEKULA and Jana PLESKALOVÁ (eds.), *CzechEncy – Nový encyklopedický slovník češtiny*, https://www.czechency.org/slovnik/AUXILIÁR; Petr KARLÍK, 'Spona', in: *ibid.*, https://www.czechency.org/slovnik/SPONA.

[2] Pavel KOSEK, 'Development of Word Order of Preterit Auxiliary Clitics in the Old Czech Bibles', in: Markéta ZIKOVÁ, Pavel CAHA and Mojmír DOČEKAL (eds.), *Slavic Languages in the Perspective of Formal Grammar: proceedings of FDSL 10.5, Brno 2014* (Frankfurt am Main, 2015), pp. 177–198; Pavel KOSEK, 'Die Wortstellung des Präteritum-Auxiliars in den ältesten tschechischen Prosatexten', *Zeitschrift für Slawistik* 62/4 (2017), pp. 621–646; see also my previous works, as cited in note 1.

[3] Citations in this and subsequent examples use the abbreviations of the sources from *Staročeská textová banka* (Old Czech Text Bank), Ústav pro jazyk český AV ČR, v. v. i., oddělení vývoje jazyka. Data version 1. 1. 23., https://vokabular.ujc.cas.cz/texty.aspx?id=STB & v=1. 1. 23.

[4] The term '(syntactic) regent' is now widely used and originates from the work of J. Toman, e.g., Jindřich TOMAN, 'Prosodické spekulace o klitikách v nekanonických pozicích', in: Zdeňka HLADKÁ and Petr KARLÍK (eds.), *Čeština – univerzália a specifika 2* (Brno, 2020) pp. 161–166.

The presented analysis of the auxiliary's word order is founded on earlier diachronic and synchronic research on clitics.[5] The approach utilized here integrates two perspectives on the position of the preterite auxiliary, i.e., the absolute position and the relative position. These perspectives are then incorporated into the data annotation system. The annotation labels used in this paper are detailed in Tables 1 and 2 for absolute and relative position, respectively. Consequently, the example mentioned above in (1) is annotated as '2P pre-verbal'.

| Position in the clause | Label | Definition |
|---|---|---|
| **1** | **1P** | 'initial position' |
| **2** | **2P** | 'second position' |
| **3 and further** | **DP** | 'delayed position' |

Table 1: **Annotating absolute position**

| Sequence | Label | Definition |
|---|---|---|
| **auxiliary** > participle | pre-verbal | 'to the immediate left of the participle' |
| participle > **auxiliary** | post-verbal | 'to the immediate right of the participle' |
| **auxiliary** > another constituent > participle | isolated | 'not in immediate contact with the participle' |

Table 2: **Annotating relative position**

Previous works on the OCz auxiliary clitics have revealed that the auxiliary typically occupies 2P as in (2a);[6] in that situation, there seems to be no clear preference for the relative position. Occasionally, the auxiliary occurs further in the sentence in DP; only then it is ordinarily placed to the right of the participle, i.e., in the post-verbal position (2b). Chart 1 illustrates this scenario using the sample from the OCz Bibles.[7] Based on earlier studies, 2P is the default pattern for clitics in OCz,[8] while DP supposedly reflects the Latin influence utilized in cases where 2P is unavailable due to various reasons.[9]

(2) a. **2P (pre-verbal)**
*co* ***jest*** *učiníl David*
what be.PRS.3SG done.PTCP David
'What has David done.' (*BiblDrážď*, *Mt* 12,3)

b. **DP => post-verbal (94 %)**
*[Z Egypta] povolal* ***sem*** *syna mého*
of Egypt called.out.PTCP be.PRS.1SG son my
'I have called my son out of Egypt.' (*BiblDrážď*, *Mt* 2,15)

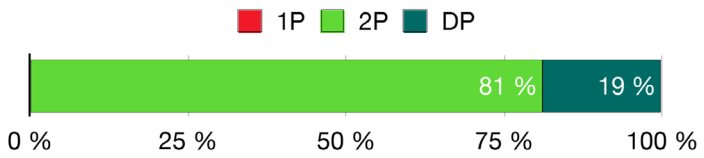


Chart 1: **Absolute positions frequency in OCz Bibles (1,572 cases in total)**

[5] For OCz, refer to KOSEK, 'Development of Word Order' (➘ note 2); KOSEK, 'Die Wortstellung des Präteritum-Auxiliars' (➘ note 2). For Middle Czech, see Pavel KOSEK, *Enklitika v češtině barokní doby* (Brno, 2011). For South Slavic, Zrinka KOLAKOVIĆ et al., *Clitics in the wild: Empirical studies on the microvariation of the pronominal, reflexive and verbal clitics in Bosnian, Croatian and Serbian* (Berlin, 2022), http://langsci-press.org/catalog/book/339.

[6] This and the subsequent example (2b) are adopted from KOSEK, 'Development of Word Order' (➘ note 2), p. 182, 188.

[7] Chart 1 replicates the results published *ibid.*, p. 181.

[8] 2P is also a typical word order for Contemporary Czech clitics, exhibiting even less variation, cf. Miroslav KOMÁREK, *Mluvnice češtiny (1)* (Prague, 1986), p. 155; Miroslav GREPL et al., *Příruční mluvnice češtiny*, 2nd revised edition (Praha, 2012), pp. 44f., 647ff.; Steven FRANKS and Tracy H. KING, *A Handbook of Slavic Clitics* (New York, 2000), pp. 90ff. Recent studies suggest that the variation between 2P and DP was only abandoned in the 19th/20th century; for more information, see Pavel KOSEK et al., 'On the Development of Old Czech (En)clitics', *Glottometrics* 40/1 (2018), pp. 51–62; Radek ČECH et al., 'Development of the word order of the reflexive enclitic *sě*/*se* dependent on a finite verb in Czech translations of the Gospel of Matthew from the 14th to the 21st century', *Journal of Historical Linguistics*, https://www.jbe-platform.com/content/journals/10.1075/jhl.21029.cec.

[9] KOSEK, 'Development of Word Order' (➘ note 2), p. 195. Hypothetically, DP post-verbal may also represent a remnant clitic pattern inherited from the Proto-Slavic period, based on the clitic behaviour

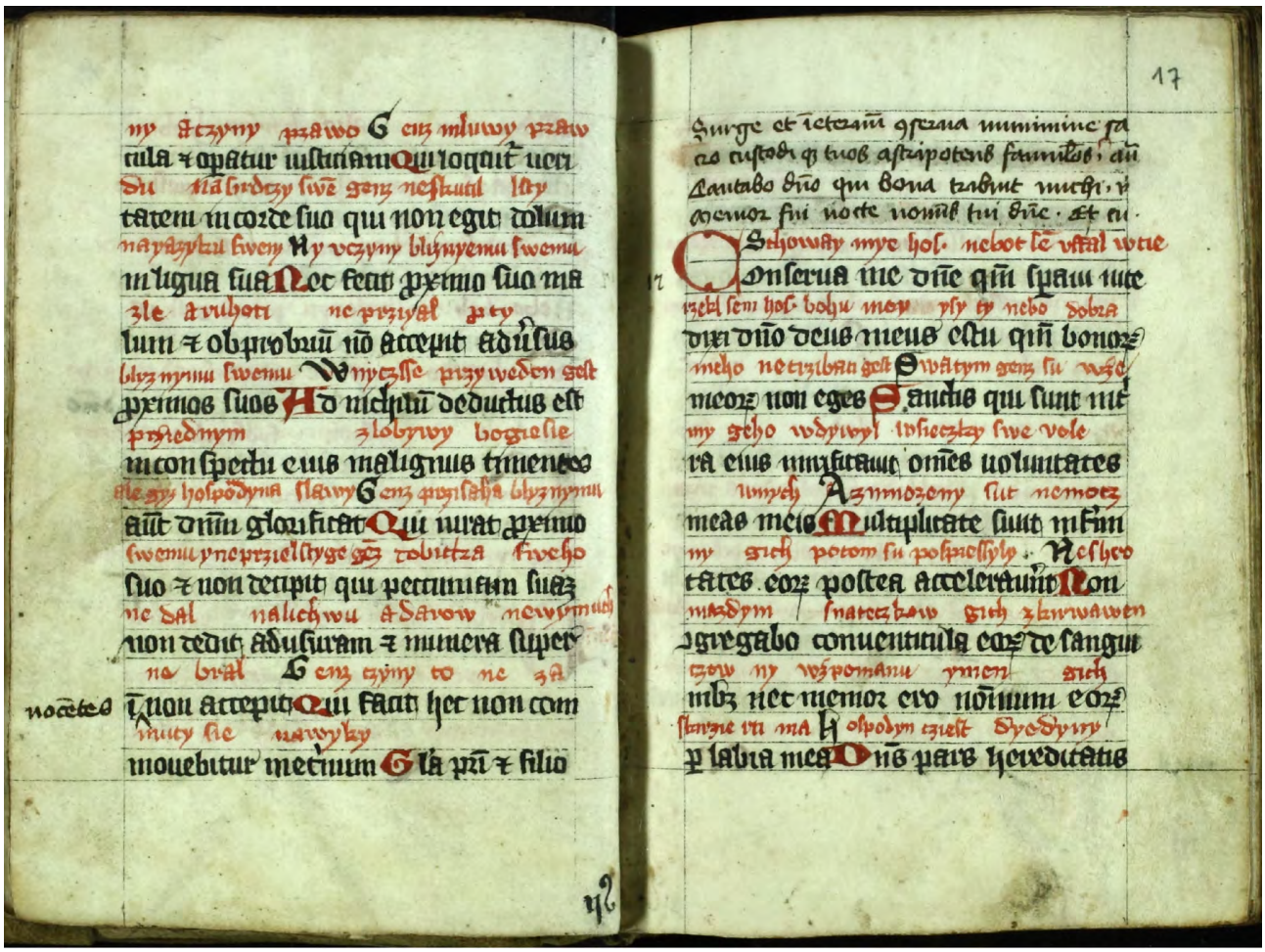

Fig. 1: *ŽaltWittb*, fols. 16$^{v}$–17$^{r}$, demonstrating the glossary character of the manuscript

## 1. Analyzed material

The sample for the word order analysis conducted in this paper was extracted from *Žaltář wittenberský* (*ŽaltWittb*, the Wittenberg Psalter).[10] *ŽaltWittb* is a manuscript dating back to the 14th century and represents the oldest known translation of the Book of Psalms into the Czech language.[11] Interestingly, the codex consists of two parallel texts composed in different languages. This essential feature of the manuscript is even reflected in the alternating row colors (➢ Fig. 1). The Latin text of the Book of Psalms is written in black ink, while the OCz translation is written above each Latin line in red ink. Notice that while the Latin text is evenly distributed within each line, the OCz translation is presented as glosses, with an apparent tendency to place the OCz word above its Latin equivalent.[12]

in Old Church Slavonic. It is presumed that only a narrow group of so-called 'operator clitics' targeted 2P in Old Church Slavonic, whereas other clitics, particularly pronominal clitics, typically appeared verb-adjacent; see Krzysztof MIGDALSKI, *Second Position Effects in the Syntax of Germanic and Slavic Languages* (Wrocław, 2016), pp. 230ff. This issue, however, still requires a more comprehensive analysis.

[10] Particularly, I worked with the electronic edition available at *Vokabulář webový* (Web Vocabulary) ran by the Department of Language Development at the Czech Language Institute of the Czech Academy of Sciences, module *Edice* (Editions): Helena KUNERTOVÁ and Kateřina VOLEKOVÁ (eds.), *Žaltář wittenberský* (Prague, 2023), http://vokabular.ujc.cas.cz/moduly/edicni/edice/{c1295dc4-5cf6-467f-8965-ec19d08b57d6}.

[11] For more information regarding different renditions of OCz Psalter translations, see Jan GEBAUER, *Žaltář wittenberský* (Prague, 1880), pp. Vff., https://ndk.cz/uuid/uuid:6cde0290-d785-11e6-9e7e-001018b5eb5c; Vladimír KYAS, *Česká bible v dějinách národního písemnictví* (Prague, 1997), pp. 32f.; and the editors' note in KUNERTOVÁ — VOLEKOVÁ, *Žaltář wittenberský* (➢ note 10).

[12] Presumably, the Latin text of Psalms was primary, while the OCz translation was intended to facilitate the intelligibility of the Latin text. The origin of the OCz translation is also complex, as it is not solely based on the Latin text found in the *ŽaltWittb* manuscript; see GEBAUER, *Žaltář wittenberský* (➢ note 11) and the editors' note in KUNERTOVÁ — VOLEKOVÁ, *Žaltář wittenberský* (➢ note 10).

Generally, OCz texts translated from Latin exhibit rather faithful renditions from the Latin source, especially biblical texts. The influence of the Latin Bible on the position of clitics has already been described in previous studies.[13] The glossary nature of *ŽaltWittb* implies that the Latin influence on the position of virtually any word in the OCz translation will be significant. However, I will demonstrate that the glossary nature does not disqualify such material from syntactic analysis. On the contrary, it presents an opportunity to thoroughly examine the influence of Latin word order on OCz clitics.

For the purpose of my analysis, I extracted and annotated OCz clauses containing the preterite auxiliary forms from the initial third of the *ŽaltWittb* content.[14] The annotation process was carried out both manually and automatically, using regular expressions and built-in functions within the Numbers software.[15] In the forthcoming examples from the analyzed sample, I will present both the Latin and the OCz readings in alignment. I will also provide glosses and English translations for the OCz examples.

## 2. Data

The initial comparison of the analyzed Latin and OCz clauses, in terms of the presence or absence of the present tense BÝTI/ESSE forms, leads us to categorize the data into three distinct groups. The situation can be elucidated using the example in (3). The sentence in (3) comprises two clauses. In the first clause, the OCz preterite auxiliary *sem* corresponds to the present tense form of Latin ESSE, specifically *sum*. Both words occupy the same clausal position and are vertically aligned in the manuscript (➢ Fig. 2). Conversely, in the subsequent clause, only the OCz form is present; here, the form *sem*, identical to the one in the first clause, lacks an equivalent in the Latin *sum*, or any other discrete Latin word for that matter. This is because the grammatical categories of OCz *sem* are expressed via inflection on the lexical verb *effudi*.

(3) [$_{clause\ \#1}$ *Hæc recordatus* **sum** ∅] [$_{clause\ \#2}$ *et effudi* ∅ *in me animam meam*]
[$_{clause\ \#1}$ *To rozpomanuſ* **sem** *sě*] [$_{clause\ \#2}$ *i vpiſ* **sem** *v sě dušu mú*][16]
that remembered.PTCP be.PRS.1SG REFL and absorbed.PTCP be.PRS.1SG in REFL soul my
'I remembered that and absorbed my soul in myself.' (*ŽaltWittb*, fol. 70$^{r}$, *Ps* 41:5)

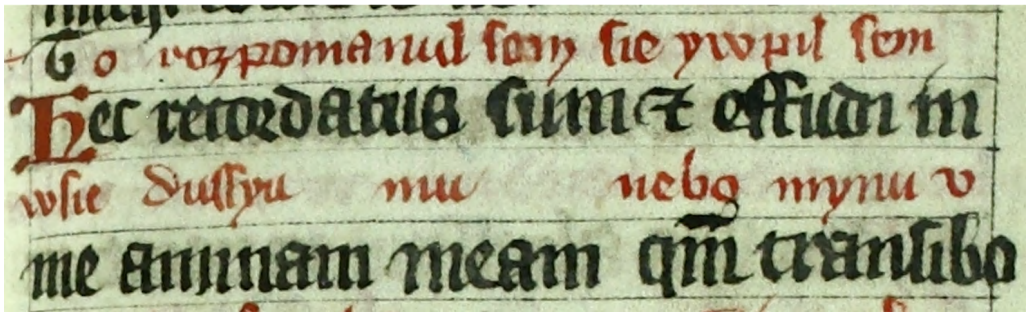


Fig. 2:
**Examples of the 'type 1' and 'type 3' data in the manuscript (*ŽaltWittb*, fol. 70$^{r}$)**

However, the examples in (3) are not exhaustive, as they only represent two out of the three data groups attested in the analyzed sample. The third group is similar to the former. In this case, both the OCz and the Latin forms are present in the clause, but the OCz auxiliary and its

[13] See, for example, Pavel KOSEK, Radek ČECH and Olga NAVRÁTILOVÁ, 'The Influence of the Latin Vulgate on the Word Order of Pronominal Enclitics in the 1st Edition of the Old Czech Bible', in: Imke MENDOZA and Sandra BIRZER, *Diachronic Slavonic Syntax. Traces of Latin, Greek and Church Slavonic in Slavonic Syntax* (Berlin – Boston, 2022), pp. 53–80. For more information on the Latin influence on OCz biblical texts, see KYAS, *Česká bible v dějinách národního písemnictví* (➢ note 11) and Olga NAVRÁTILOVÁ, *Slovosled posesivních zájmen ve staré češtině* (Brno, 2018).

[14] The analyzed sample, therefore, does not represent *ŽaltWittb* in its entirety. However, I decided to investigate whether the data's location in my sample might, for any reason, impact the distribution of the preterite auxiliary. For this reason, I randomly divided the analyzed sample into two groups. Subsequently, I conducted the chi-square test of independence to determine whether there was an association between the two random groups and the absolute position of the auxiliary. Finally, the test results did not reveal any statistically significant difference between the two groups at the significance level $\alpha = 0.05$: $\chi^2(5, N = 301) = 5.62$, $p = 0.345$.

[15] The Numbers software is free to use for anyone with an iCloud account at: https://www.icloud.com/.

[16] The editors of *ŽaltWittb* emend the original <wpil> as *vylil*, which better corresponds to the Latin *effudi*.

Latin equivalent occupy different positions within the clause and are not even aligned in the manuscript; see example (4) (➢ Fig. 3).

(4) *Si obliti* ***sumus*** *nomen Dei nostri,*
*Ač* ***sme*** *zapomanuli jmě boha našeho,*
even though be.PRS.1PL forgot.PTCP name God our
'Even though we have forgotten the name of our God.' (*ŽaltWittb*, fol. 73ᵛ, *Ps* 43:21)

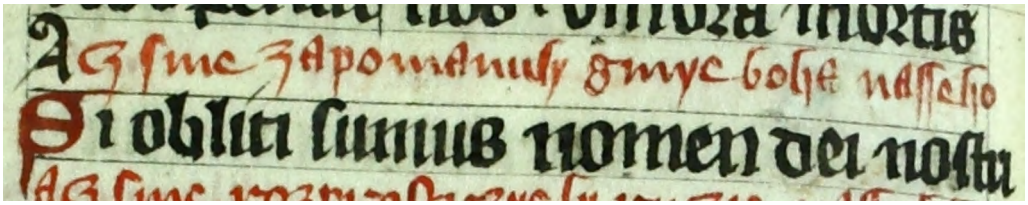

Fig. 3: **Example of the 'type 2' data in the manuscript (*ŽaltWittb*, fol. 73ᵛ)**

I label these data groups as 'type 1,' 'type 2,' and 'type 3.' In (5), I repeat the examples for clarity, as this categorization is essential for the subsequent word order analysis.

(5) a. **'type 1' (OCz present – Latin present – same positions)**
*Hæc recordatus* ***sum*** ∅
*To rozpomanuł* ***sem*** *sě*

b. **'type 2' (OCz present – Latin present – different positions)**
*Si obliti* ***sumus*** *nomen Dei nostri,*
*Ač* ***sme*** *zapomanuli jmě boha našeho,*

c. **'type 3' (OCz present – Latin absent – same positions)**
*et effudi* ∅ *in me animam meam*
*i vpił* ***sem*** *v sě dušu mú*

## 3. Word order analysis

In the following section, I will analyze the word order of the various data categories established in Section 2, one by one. Additionally, I will identify the Latin source text as the primary factor responsible for the OCz preterite auxiliary placement, as well as the differences among various data types.

### 3.1 'Type 1'

In the case of 'type 1,' both OCz and Latin forms are present in the clause and occupy the same position. However, it is crucial to establish which position that is. This will be instrumental for comparisons with other data groups, and subsequently for determining the influence of the Latin source text on the OCz word order, as well as its limitations. The results of the 'type 1' word order analysis are summarized in Charts 2 and 3, for absolute and relative positions, respectively.

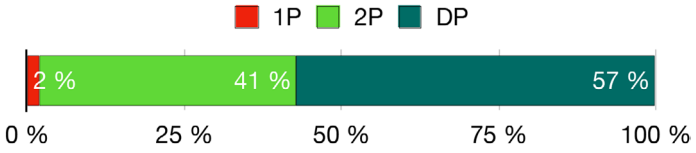


Chart 2: **'Type 1' absolute position (56 cases in total)**

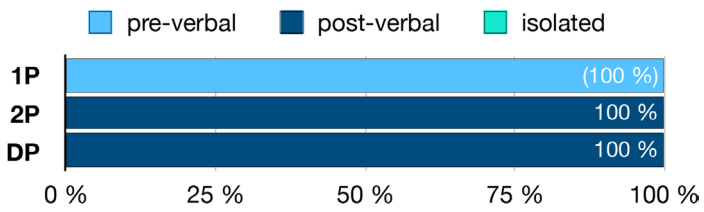


Chart 3: **'Type 1' relative position (56 cases in total)**

The results from Charts 2 and 3 reveal that the most frequent position of the OCz auxiliary in the 'type 1' data is DP (57 %), with 2P being the second most common position (41 %).[17] In

[17] A single case of 1P attested in 'type 1' data is ambiguous concerning the position, as well as the clitic status of the analyzed form, see (i.). Here, two elements precede the OCz BÝTI form *jsú*, namely the coordinator *i*, and the negation particle/prefix *ne-*. This leads us to consider the example in (i.) as non-clitic. See KOSEK, *Enklitika v češtině barokní doby* (➢ note 5), pp. 44f.; KOSEK, 'Development of Word

both clausal positions, the auxiliary consistently appears immediately after the participle, i.e., post-verbally; only in 1P, it is placed pre-verbally. On one hand, this situation aligns with previous studies[18] that have indicated that OCz clitics are in fact enclitics, meaning they cannot immediately follow a pause in speech. On the other hand, the 'type 1' word order contradicts Pavel Kosek's findings regarding the general placement of the preterite auxiliary in OCz Bibles, where 2P strongly predominates, seemingly without a clear preference for the relative position.

Based on these results, we can establish the prototypical 'type 1' word order pattern as DP post-verbal (32/56 cases, 57 %), illustrated by example (6). Furthermore, we can treat this word order pattern in OCz as a direct effect of the Latin word order.

(6) **DP post-verbal**
*[os eorum] locutum* ***est*** *superbiam.*
*[usta jich] mluvily* ***sú*** *pýchu.*
mouth their spoke.PTCP be.PRS.3PL pride
'Their mouth spoke of pride.' (*ŽaltWittb*, fol. 19r, *Ps* 16:10)

### 3.2. 'Type 2'

When the OCz and the Latin forms co-occur, they do not always occupy the same clausal positions; this is represented by the 'type 2' data from the analyzed sample. It is essential to highlight the infrequency of this occurrence, as 'type 2' is only attested twice in the analyzed sample. Both instances are the cases of 2P, as seen in examples (7).[19] While the low number of cases does not suffice for a comprehensive analysis, it suggests the presence of factors capable of disrupting the otherwise strong imperative to replicate the word order of the Latin source text. Specifically, (7a) demonstrates the powerful tendency toward 2P. Additionally, the example in (7b) illustrates one of the restrictions imposed on OCz clitics, namely that OCz clitics do not ordinarily follow the negation particle/prefix *ne-* (cf. note 17).

(7) a. **2P pre-verbal**
*Si obliti* ***sumus*** *nomen Dei nostri,*
*Ač* ***sme*** *zapomanuli jmě boha našeho,*
even though be.PRS.1PL forgot.PTCP name God our
'Even though we have forgotten the name of our God.' (*ŽaltWittb*, fol. 73v, *Ps* 43:21)

b. **DP post-verbal**
*non* ***est*** *oblitus clamorem pauperum.*
*ne-zapomanul* ***jest*** *volánie chudých.*
NEG-forgot.PTCP be.PRS.3SG calling poor
'He hasn't forgotten the calling of the poor.' (*ŽaltWittb*, fol. 10r, *Ps* 9:13)

### 3.3. 'Type 3'

The majority of the grammatical auxiliary cases in the analyzed sample belong to 'type 3' (243/301 cases, 81 %). In 'type 3' data, only the OCz BÝTI is present in the clause, while its Latin counterpart is absent. This is because the grammatical categories that necessitate expression via the OCz preterite auxiliary are already expressed via inflection on the Latin lexical verb.

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Order' (≺ note 2), pp. 182; FRANKS and KING, *A Handbook of Slavic Clitics* (≺ note 8); cf. example (7b) where the *ne-* adhesion is omitted.

(i.) *et non* ***sunt*** *infirmata vestigia mea.*
*i ne-****jsú*** *zemdlely stopy mé.*
and NEG-be.PRS.3PL weakened.PTCP traces my
'And my traces have not weakened.' (*ŽaltWittb*, fol. 23v, *Ps* 17:37)

The structure in (i.) faithfully replicates the Latin word order, seemingly under the influence of the Latin source text. Additionally, the given example may reflect the remnant state of grammar when the preterite auxiliary was less grammaticalized, and therefore able to attach to a negation particle/prefix *ne-*; see KOSEK, *Enklitika v češtině barokní doby* (≺ note 5), p. 120.

[18] For OCz enclitics in general, see KOSEK et al., 'On the Development of Old Czech (En)clitics' (≺ note 8); for pronominal enclitics, see KOSEK et al., 'Slovosled pronominálních enklitik *mi*, *si*, *ti*, *ho*, *mu* závislých na verbu finitu v prvním vydání *Bible kralické*', *Listy filologické* 143/1–2 (2020), pp. 99–147; for the OCz preterite auxiliary specifically, see KOSEK, 'Development of Word Order' (≺ note 2); KOSEK, *Die Wortstellung des Präteritum-Auxiliars* (≺ note 2).

[19] Note that the annotation labels '2P pre-verbal', 'DP post-verbal' only represent the position of the OCz preterite auxiliary BÝTI, not the Latin ESSE.

The absence of the Latin ESSE theoretically allows the OCz form the freedom to move within the clause, independent of the Latin source text. However, this is only partially true, as the Latin influence on the auxiliary placement in *ŽaltWittb* also occurs 'indirectly' (see the following Section 4).

The results of the 'type 3' word order analysis are summarized in Charts 4 and 5. Chart 4 illustrates that 'type 3' predominantly occupies 2P (75 %). DP is also attested, although less frequently (24 %).[20] The distribution of absolute positions mirrors that described in the OCz Bibles (2P 81 %).[21] This comparison is also evident in terms of relative position, as seen in Chart 5. Within 2P, the auxiliary does not emit a clear preference for any relative position; however, within DP, the prevalence of post-verbal placement significantly increases (55 % in 2P → 85 % in DP).

Chart 4: **'Type 3' absolute position (243 cases in total)**

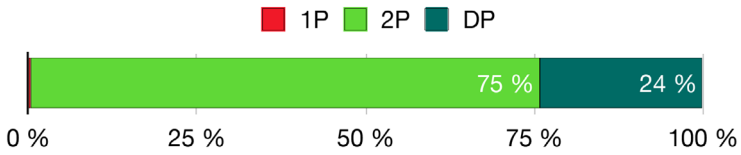
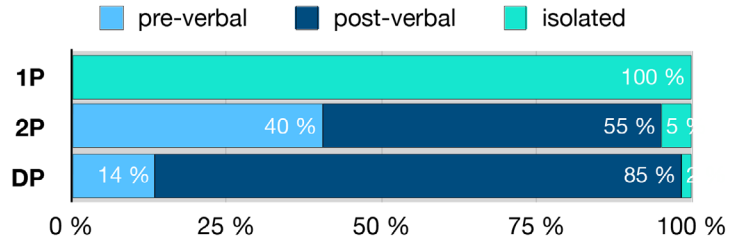



Chart 5: **'Type 3' relative position (243 cases in total)**




The prototypical 'type 3' word order is thus 2P post-verbal (100/243 cases, 41 %), as illustrated in example (8).

(8) **2P post-verbal**
*dedisti* ∅ *lætitiam in corde meo*
*dal* ***si*** *veselé v sirdci mém.*
gave.PTCP be.PRS.2SG joy in heart my
'You have given joy to my heart.' (*ŽaltWittb*, fol. 4r, *Ps* 4:7)

### 3.4. Preliminary conclusion

After conducting the word order analysis for each group of data, we have observed the direct influence of the Latin source text on the position of the OCz preterite auxiliary in *ŽaltWittb*. The situation can be broken down into the following observations.

If the Latin ESSE is present in the clause, the OCz auxiliary copies its position in 97 % of cases. Consequently, the OCz preterite auxiliary is typically placed in DP post-verbally. Such a word order pattern is relatively uncommon for OCz clitics, leading us to conclude that it mirrors the Latin word order pattern.[22]

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[20] The sole case of 1P is once again ambiguous, see (i.). In this instance, the initial position is occupied by the interjection *Toť*, while the auxiliary appears in the second position. However, it is a common trait of OCz clitics to avoid positions after interjections due to the potential pause in speech that may follow. Thus, (i.) contradicts the typical clitic behaviour in OCz. However, a pause in speech after *Toť* is purely hypothetical. Additionally, it is plausible that the particle *ť*, adhered to the initial *To*, and the auxiliary *jsi* form a clitic cluster in 2P.

(i.) *Ecce* ∅ *mensurabiles posuisti dies meos,*
*Toť,* ***jsi*** *měrny postavil dni mé*
behold be.PRS.2SG measurable made.PTCP days my
'Behold, you have made my days measurable.' (*ŽaltWittb*, fol. 64r, *Ps* 38:6)

[21] KOSEK, 'Development of Word Order' (≺ note 2), p. 181; cf. KOSEK, *Die Wortstellung des Präteritum-Auxiliars* (≺ note 2), p. 629.

[22] In other words, the OCz BÝTI analysis also provides a partial analysis of the Latin ESSE word order. The sample of Latin ESSE is limited to those cases in which Latin ESSE has its counterpart in the phonetically expressed preterite auxiliary in OCz. The analysis then shows that all of the analyzed Latin ESSE is placed post-verbally. There is only one exception, represented by the example in (7b), where the Latin *est* follows immediately after the initial negation *Non*, and thus precedes the participle.

If the Latin ESSE is absent in the Latin source text while the OCz BÝTI is present, 2P prevails. However, there is still a considerable variation between 2P (75 %) and DP (24 %); the remaining 1 % represents an ambiguous case of 1P (see notes 17 and 20).

Thus, the emerging question is, what causes the variation between 2P and DP within 'type 3' cases. The following Sections 4 and 5 will introduce two factors that are found to be involved in the placement of the 'type 3' cases. First, I will discuss the 'indirect' effect of the Latin source text, which has not been previously mentioned here, namely the position of the lexical verb. Second, I will build on the analysis conducted in Pavel Kosek et al.'s study where the prosodic effect on clitic placement was described, particularly the length of the initial phrase.[23]

## 4. Participle position

In this section, I will discuss the 'indirect' effect of the Latin lexical verb on the position of the OCz BÝTI. In the analyzed sample, the position of the OCz participle is always dependent on the position of the lexical verb in the Latin source text, as can in fact be observed in each of the given examples.[24] Subsequently, in respect to the OCz participle, the auxiliary can be placed virtually anywhere to its left, either pre-verbally or in isolation, as illustrated in (9). However, it can only be placed post-verbally when it follows the participle (10). In other words, the auxiliary never occupies the isolated position with the participle to its left.[25] Notice that in the examples (9–10), the Latin lexical verb consistently occupies the third position in the clause, while the position of OCz BÝTI, as well as the participle, varies.

(9) a. **2P isolated (OCz participle in the fourth position)**
*Quoniam ∅ [ex omni tribulatione] eripuisti me,*
*Nebo **jsi** [ze všeho smutka] vypravił mě*
for be.PRS.2SG from all sorrow delivered.PTCP me
'For you have delivered me out from all sorrows.' (*ŽaltWittb*, fol. 37r, *Ps* 53:9)

b. **DP pre-verbal (OCz participle in the fourth position)**
*[A fortitudine manus tuæ] ego ∅ defeci in increpationibus:*
*[Ot síly ruky tvé] ja **sem** ustał v lání,*
from strength hand your I be.PRS.1SG stopped.PTCP in arguing
'From the strength of your hand I have stopped arguing.' (*ŽaltWittb*, fols. 64v–65r, *Ps* 38:12)

(10) **DP post-verbal (OCz participle in the third position)**
*ego hodie genui ∅ te.*
*ja dnes urodił **sem** tě.*
I today begotten.PTCP be.PRS.1SG you
'I have begotten you today.' (*ŽaltWittb*, fol. 2r, *Ps* 2:7)

This means that the participle generates a right-most border for the auxiliary. As mentioned above, the position of the OCz participle is always dependent on the position of the lexical verb in the Latin source text. Thus, the influence of the Latin source text on the word order of the OCz preterite auxiliary is twofold. It 'directly' influences the OCz BÝTI in cases where the Latin ESSE is present in the clause. This is evident as the position of the Latin ESSE is replicated by the OCz BÝTI in 97 % of cases, as observed in the 'type 1' and 'type 2' analyses. When the Latin ESSE is absent in the clause, i.e., 'type 3,' the Latin source text still 'indirectly' influences the clitic position through the position of the participle. This is because the OCz participle mirrors the position of the Latin lexical verb, subsequently affecting the position of the OCz BÝTI, as the preterite auxiliary cannot appear separated from the participle with the participle to its left. However, the participle position alone does not precisely determine the auxiliary position to be taken within the clause.

[23] KOSEK et al., 'Slovosled pronominálních enklitik *mi, si, ti, ho, mu*' (≺ note 18); see also ČECH et al., 'Development of the word order of the reflexive enclitic *sě/se*' (≺ note 8).

[24] The absolute position of the OCz participle may differ from the Latin participle, as in (9). This is usually because of the insertion of clitics, such as the OCz preterite auxiliary.

[25] Rare instances were attested, such as the one in (i.). In the given example, the word order is apparently subject to rhythmic factors (such as rhyme, etc.); see BŘEZINA, 'Distribution of (non)-syllabic present tense forms of the verb *býti*' (≺ note 1).

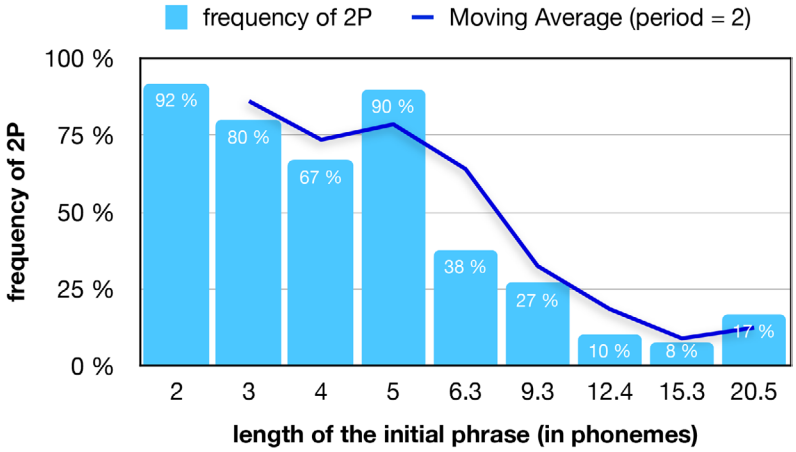
(i.) *Svatý Vavřinec troji čest v svatéj cěrekvi obdiržał nad jiné svaté **jest***
Saint Lawrence triple honor in holy church received.PTCP above other saints be.PRS.3SG
'Saint Lawrence has received triple honor above other saints in the Holy Church.' (*PasMuzA*, p. 434)

## 5. Initial-phrase length

It has previously been revealed that the word order of OCz clitics is subject to prosodic factors, such as the length of the initial phrase (LIP).[26] It is presumed that a long initial phrase renders 2P unavailable for a clitic, particularly an enclitic. This is because long phrases necessitate a pause in speech; however, enclitics cannot follow immediately after a pause. Consequently, when 2P is unavailable due to the extensive length of the initial phrase, the DP post-verbal position, established by the Latin word order, is utilized. This leads to a straightforward generalization, as demonstrated in Pavel Kosek et al.'s 2020 study: the longer the initial phrase, the less likely it is for the clitics to occupy 2P.

I have examined the prosodic effect of the length of the initial phrase on the OCz 'type 3' preterite auxiliary; the results are summarized in Chart 6.[27] The analysis reveals that up to the length of 5 phonemes, 2P is the preferred position. If the initial phrase is 6.3 phonemes or longer, there is a significant decrease in the frequency of 2P.

Chart 6:
**The effect of the length of the initial phrase on the frequency of 2P**




This shows to satisfaction that the LIP effect is a significant factor in the placement of the OCz preterite auxiliary. The situation is nevertheless not black-and-white. Clearly, other factors are also at play, as the individual frequencies for each LIP fluctuate between 0 % and 100 %, as depicted in Chart 6. One factor that immediately comes to mind is the participle position. This is due to the fact that when the participle appears clause initially, the OCz auxiliary cannot be moved further to DP (hosted by another constituent), regardless of the length of the initial participle. However, this issue still requires a more thorough analysis.

## 6. Conclusions

This paper presents the word order analysis of the OCz preterite auxiliary, typically considered a clitic. The data for the analysis were extracted from the OCz translation of the Book of Psalms found in *Žaltář wittenberský* (Wittenberg Psalter). The manuscript has a glossary character and demonstrates a strong reliance of the OCz translation on the Latin source text.

The word order analysis has revealed that even in the OCz glossary translation, the preterite auxiliary is drawn to the second position in the clause (2P), which is a typical position for

[26] KOSEK et al., 'Slovosled pronominálních enklitik *mi*, *si*, *ti*, *ho*, *mu*' (≺ note 18); ČECH et al., 'Development of the word order of the reflexive enclitic *sě*/*se*' (≺ note 8).

[27] In Chart 6, we can see the relative frequency of 2P (axis *y*) for each length of the initial phrase (LIP, axis *x*). Because the LIP was measured in the number of phonemes, each OCz phrase was reconstructed in the following way. I worked with the modern transcription based on the phonological orthography of Contemporary Czech; additionally, I substituted the digraph <ch> with a single <x>. Thus, each character used for the measurement was assumed to correspond to an OCz phoneme. When any particular length was not represented with the minimum frequency of 10 cases, it was added up with the cases of the subsequent length; consequently, the weighted average length ($LIP_{avg.}$) was calculated using the formula in (i). This procedure is based on KOSEK et al., 'Slovosled pronominálních enklitik *mi*, *si*, *ti*, *ho*, *mu*' (≺ note 18), p. 124.

(i) $$LIP_{avg.} = \frac{\sum_i^n (l \times f)}{n}$$

$l$ length (e.g., 5 phonemes, 6 phonemes)
$f$ frequency of the particular length (e.g., 7 cases, 4 cases)
$n$ sum of frequencies (e.g., 11 cases)

both OCz and Contemporary Czech clitics. However, there is a considerable variation regarding its position. Several factors contribute to the variation, namely the Latin source text, which has both 'direct' as well as 'indirect' influence. Additionally, prosody, by means of the length of the initial phrase, also impacts the preterite auxiliary position in the analyzed material.

The results of the analysis, i.e., the factors responsible for clitic placement, their interplay, and mutual hierarchy, are summarized in the 'placement algorithm' in Chart 7.[28]

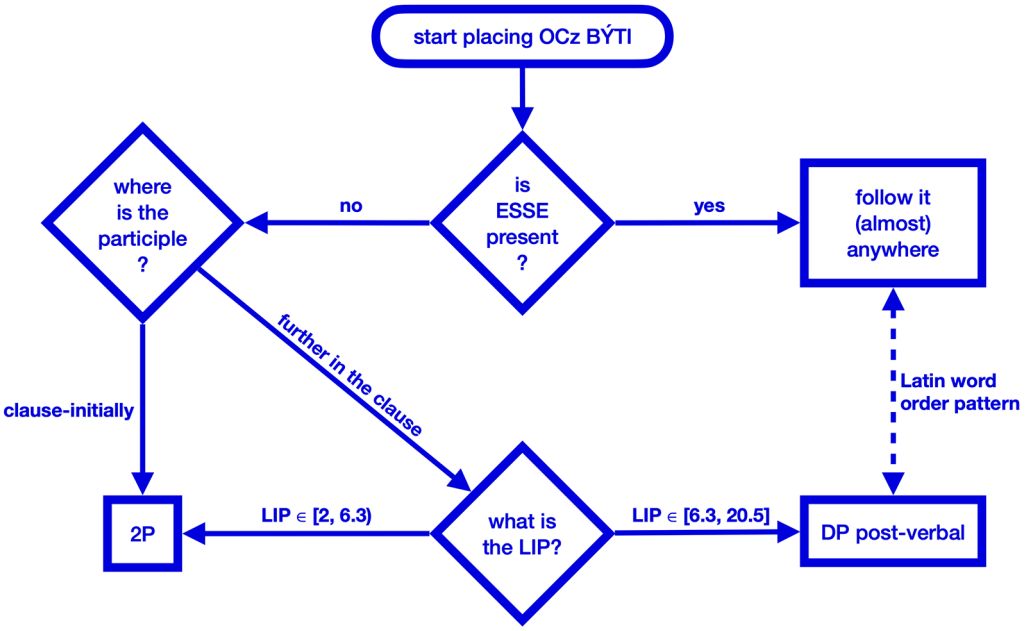



Chart 7:
**The OCz preterite auxiliary placement algorithm**

The chart illustrates that the primary factor affecting the OCz position in the clause is the presence of the corresponding Latin ESSE in the Latin source text. If the Latin ESSE is present in the clause, the OCz preterite auxiliary replicates its position in the vast majority of cases (97 %). Simultaneously, this constitutes the prototypical Latin word order pattern, DP post-verbal, which can be utilized when the Latin ESSE is absent. In that scenario, the position of the OCz participle, itself dictated by the position of the Latin lexical verb, is checked. If the participle is clause-initial, the preterite auxiliary has no other option for placement but 2P. If the participle appears further in the clause, other factors come at play, such as the length of the initial phrase.[29] Relatively short initial phrases (< 6.3 phonemes) permit 2P, i.e., the OCz pattern. However, if the initial phrase is relatively long (≥ 6.3 phonemes), 2P is unavailable, and the previously established Latin word order is utilized. Thus, the preterite auxiliary is placed in DP post-verbally.

[28] This is only meant to be understood as a simplification of the situation at hand. It is not presumed that the medieval translator/scribe followed the proposed algorithm. The scheme solely summarizes the results of the analysis comprehensively and sorts the factors responsible for the variation in the OCz BÝTI position hierarchically, based on the analysis results.

[29] The participle position clearly dominates the LIP effect. This is because the clitic cannot appear further in the clause, i.e., isolated from the clause-initial participle, regardless of the participle's length.