DISTRIBUTION OF THE FRENCH COORDINATION
DONC IN DIACHRONY

The work is devoted to the development of the distributive properties of the French polyfunctional item *donc* ‘therefore, so’ in a broad diachronic perspective, from the 11th century to the present. As a result of accessing the data of the National Corpus of the French language Frantext and the French corpus of the Google books Ngram Viewer system, the trajectory of the development of *donc* as a coordinator is determined. It is concluded that the long-term variability of the *donc* written forms, which differ in distributive properties in texts of different genres, leads to multidirectional trends in its use as a coordinator. As a result of comparing the contexts in which *donc* shows its conjunctive properties and establishes the logical-semantic relations of the consequence, the following is established. The share of *donc* usage as a coordination unit of two independent sentences in the initial position has been significantly reduced over more than a thousand years of the French language development. This way of *donc* use is not predominant. The use of *donc* in the postposition to the personal form of the verb to establish a connection, with the exception of the imperative mood, tends to gradually increase. The *donc* use in co-occurrence with other coordinating conjunctions (*et donc*, *ou donc*, *mais donc*, etc.) is a special case of its functioning. The results obtained complement the previous scientific knowledge about the functioning and syntactic mobility of *donc* and are necessary for comparison with information of this kind about other linking words.

*Keywords*: polyfunctionality, conjunction, coordinator, distribution properties, diachrony, corpus data.
бительности как единицы сочинения. В результате сопоставления контекстов, в которых единица проявляет свои конъюнктивные свойства и устанавливает логико-семантические отношения, установлено следующее. Доля употреблений лексемы в качестве соединителя двух независимых предложений в инициальной позиции значительно уменьшается более чем за тысячелетнюю историю развития французского языка. Такой способ употребления лексемы не является для нее преобладающим. Использование единицы в постпозиции к личной форме глагола для установления коннективной связи за исключением форм повелительного наклонения имеет тенденцию к постепенному увеличению. Доля употреблений лексемы donc в сочетании с другими единицами сочинения (et donc, ou donc, mais donc и т.д.) представляют собой частный случай функционирования единицы. Полученные результаты дополняют предшествующие научные знания о функционировании и синтаксической мобильности лексической единицы donc и необходимы для сопоставления с информацией такого рода о других связующих единицах.

Ключевые слова: полифункциональность, союз, единица сочинения, дистрибутивные свойства, диахрония, корпусные данные.

Introduction

The key problem of the class of linking words is that it includes units whose boundaries are rather blurred and fuzzy. This is partly due to the fact that many linking words are in the process of formation, on the way of transition from one category to another. In other words, there are various polyfunctional units in the language, which, depending on the syntagmatic context, perform different functions, moving from one category to another.

It is recognized that polyfunctionality and transcategoriality are a linguistic universal. This is “un moyen d’optimisation des systèmes linguistiques, permettant à un minimum de forms d’avoir un maximum de fonctions” ‘a means of optimizing linguistic systems, allowing a minimum of forms to have a maximum of functions’ [Robert 2003, p. 18] and “to maximise meaning and minimise effort” [Anward 2000, p. 38].

The object of the study is the French polyfunctional item donc ‘therefore, so.’ This “privileged” indicator of the logical operation of the consequence in the interpretation of P. Charaudeau [Charaudeau 1992], simultaneously functions as a coordinating conjunction and as a particle. The appearance of donc in Old French is controversial (see, for ex., [Rey 2012; TLF]). In general, the version presented in the etymological dictionary of the French language Dubois-Mitterrand-Dauzat is accepted: donc comes from the Latin imperative dunc, formed by crossing the forms dumque (a long form of the verb) and the adverb tum, tunc in the meaning of pendant.
‘while’, similar as used with the modern adverb *alors* ‘then’ [Dubois, Mitterand, Dauzat 2007]. It should be added that in the Old French translations of Latin texts, the newly formed *donc* is used as Latin units meaning opposition (*autem*) and consequence (*igitur, ergo*). See: *Dicam ergo ‘Je dirai donc’; Cogito ergo sum ‘Je pense donc je suis’ (on the discursive functions of *donc* in translated texts, see [Shkolnikova 2015, p. 92].

This item has repeatedly become the object of close linguistic attention. The focus is on the issues of its grammatical status [Ferrari, Rossari 1994; Nome, Hobæk 2011 et. al] and discursive usage [Hansen 1997; Bolly, Degand 2009 et. al]. The semantic-syntactic function of *donc* [Bolly, Degand 2009] is singled out, which coincides with the conclusive function in [Hansen 1997], and with the argumentative function according to [Ferrari, Rossari 1994]. In this case, the *donc* equivalents are: *par conséquent ‘therefore’, de ce fait ‘from this, j’en déduis que ‘I infer that*. Despite the variety of approaches, traditional grammar interprets *donc* as a coordinating conjunction or a connecting particle with the meaning of a consequence or conclusion. In modern French, *donc* is qualified as an adverb of the logical relationship of cause and effect [Grevisse 2008, § 1033, p. 1311]. We rank *donc* among the French core coordinators [Auseichyk, 2022].

The polyfunctionality of *donc* makes it necessary to trace the trajectory of the development of its distributive properties as a core coordinator in diachrony.

**Methods and material**

The research was done on the basis of data from the National Corpus of the French Language Frantext [FR], which includes 5,555 texts of different genres of the 11th–21th centuries with a total volume of more than 264 million word usages. We also used data from the French corpus of the Google books Ngram Viewer system [GBNgrV], which is represented by 792,118 digitized documents over the past 200 years with a volume of more than 102,174,681,393 word usages.

To establish the trajectory of the development of *donc* distributive properties in a broad diachronic perspective — from the time of its first written fixation (11th century [Dubois, Mitterand, Dauzat 2007]) to the present — all its written variants in the early period of language development were taken into account: 7 variants in Old French (*donc*, *don*, *dont*, *diint*, *dune*, *dounke*) and 26 variants in Middle French (*donc*, *doncq*, *doncq’, donque, donques, doncquez, doncet, donkes, dong*, *dons, doncq*, *donques, doncque, doncques, doncquez, doncet, donkes, dong*, *dons, donque, donques, doncque, dont, dontiques, dunc, dunches, dunkes, dunque, dunques, idonc, idonques, idunc, idunches, idunkes) according to lexico-
graphic sources [Godefroy 1881, DMF]. It should be noted in particular that many variants of donc persisted for a long time in the language until the adoption of the modern spelling of the item by the French Academy in 1718 (cited in [Grevisse 2008, § 961, p. 1187]).

Distributive, functional-semantic, logical-semantic and contextual analyzes, as well as methods of statistical processing of language material are used.

The study shows that initially not all written variants of donc exhibit the same distributive properties. At the same time, both the quantitative representation of written variants and the intensity of their use in the early period of the French language are different. We assume that the polyfunctionality of donc is determined by its initially broad distributive properties, which are the result of the parallel use of its various written variants in texts of different genres due to the ambiguous origin of donc itself.

The paper presents the results of a quantitative comparison of the distributive properties of donc in the course of the French language development, namely: i) in frontal distribution to denote a connection (P1 donc P2); ii) in postposition to the verb in personal form to denote logical relations; iii) in post-position to the coordinating conjunctions for their concretization (ConjCO donc, where ConjCO is a core coordinator).

Results and discussion

i. The first way to use donc is to connect two independent predicative units in the initial position to indicate a connective relationship (P1 donc P2). Donc, by analogy with the core coordinator et ‘and’, is initially actively used to establish a connection.

Ele aluma la chandele et regarda le berz ou l’enfant gisoit delez le lit de la dite Marie, et vit les drapelez que il avoit seur lui ensanglentez, de quoi ele fu mout esbahie. Donc ele leva le dit enfant du bers ‘She lit a candle and looked at the lullaby where the baby lay in Mary’s bed, and saw that the sheets on it were bloody, which made her dumbfounded. So she took the baby out of the cradle’ (hereinafter our translation — Yu.A.) (G. de Saint Pathus. Miracles de saint Louis, 1300¹), where P₁ ‘child in bloody sheets’ → P₂ ‘get baby out of bed’.

According to the corpus data, the indicated donc usage is characteristic of only 18 out of 28 written variants. To play the role of a coordinator in the initial position between two independent sentences, not all written variants are equally in demand. Three variants donc, doncques, doncquez are fixed in two subcorpuses. The rest are either less frequent or not used in Old or Middle French in the designated position (see Table 1).
Table 1. The dynamics of *donc* usage in the model P1 *d*onc P2

<table>
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<td><em>d</em>oncque'ez'</td>
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*Remark:* 1 — Old French subcorpus, 2 — Middle French subcorpus, $X_i$ — absolute number of occurrences of item, $X_2$ — the number of *d*onc occurrences as a coordinator.

Taking into account all written variants, the share of the *d*onc use as a connector of two independent sentences decreases from 30.96% (or 549 out of 1,773) in Old French to 10.23% (or 541 out of 5,023) in Middle French. We especially note that this way of *d*onc use prevails in literary texts (epic poems, writings, lives, legends, novels).

The study shows that the use of *d*onc in frontal distribution to denote a connection (P1 *d*onc P2) tends to decrease. In the subcorpus of the classical language (1600–1799), the share of this usage is 4.39% (or 1,948 out of 44,356), in the subcorpus of the modern language (1800–1979) it is 4.21% (or 4,206 out of 100,000) and in the modern language subcorpus (1980–present) — 16% (3,912 out of 23,466).

ii. The second way of *d*onc use deserves special attention because of its syntactic mobility. Apparently, the property of the unit to adjoin the predicative element is explained by the origin of *d*onc from the Latin enclitic and the preservation of the mechanism of its functioning. In our study, we take into account contexts in which *d*onc follows the verb in the personal form. Moving *d*onc to the preverbal position is allowed. Cf.: *Je pense, donc je suis = Je pense, je suis donc* ‘I think, therefore I am,’ but ≠ *Je pense, je suis ‘I think, I am’ [Wilmet 2007, p. 127]. However, its elimination from the structure of the sentence does not allow us to restore the logical connection between P1 and P2. To illustrate, we will give examples from Middle French and Contemporary French. The presence of *d*onc makes
it easier to decode the connection between the stated and the conclusion about the need to write the letter \textit{z} in the intervocalic position (ex. 2), between the stated and the decision not to go home immediately after a long absence (ex. 3).

...aussi bonne est l'écriture de dignitez par \textit{z}, que celle d'\textit{aymez}. Comme que veritablement \textit{z} n'est point lettre nayvement finale en la langue Françoise: d'autant qu'elle requiert je ne sçay quel siflement avecq' fredon. Nous escrirons \textit{doncq'} [=doncq nous escrirons] unq \textit{z} au lieu de s, entre deux voyelles, comme en dizons, fezons, plezançe... then it's just as good to write dignitez with \textit{z} as well as \textit{aymez}. In fact, \textit{z} is not the final letter in French: especially since it requires some whistling with rattling. Therefore, we will write \textit{z} instead of \textit{s} between two vowels, as in the words dizons, fezons, plezançe' (L. Meigret. Traité touchant le commun usage de l'écriture françoise, 1545).

...tout de suite chez lui. Il aurait pu chercher Eliott et les autres, mais il n'en avait pas envie non plus. Il revenait après une longue absence, au- réolée de rumeurs et de questions. Il ne souhaitait pas dilapider trop vite cette sorte de crédit flou qu'avait produit l'éloignement. Il choisit \textit{donc} d'aller faire un tour en ville [=donc il choisit] ‘...immediately at home. He could have looked for Eliot with the others, but he had no desire. He returned after a long absence, surrounded by rumors and inquiries. He did not want to dispel too quickly this suspense engendered by his remoteness. So he decided to take a walk around the city’ (N. Mathieu. Leurs enfants après eux, 2018).

In the early period of language history, only 9 out of 28 written variants of \textit{donc} are used in the indicated way and are recorded mainly in scientific and official business texts (see Table 2).

Taking into account all written variants, the share of the \textit{donc} usage in the postverbal position, in contrast to the previous usage, gradually increases. Cf.: 8.46\% (or 150 out of 1773) vs. 14.43\% (or 725 out of 5023) in the Old and Middle French subcorpuses, respectively. Subsequently, this way of use the item becomes the main one. Compare: 48.95\%, 50.88\% and 44.95\% of the total number of \textit{donc} occurrences in the third, fourth and fifth subcorpuses, respectively.

In modern French, the use of \textit{donc} is allowed both as a pre-verbal position and a post-verbal position in a number of similar contexts. For comparison, we used data from the French corpus of the Google books Ngram Viewer system [GBNgrV]. The corpus provides an opportunity to track changes in the frequency of different combinations of units over the past 200 years relative to the total number of word usages in digitized documents. The trend in the use of \textit{donc} in preverbal and postverbal
Table 2. The dynamics of donc usage in the post-verbal position

| written variants | subcorpuses | | | | written variants | subcorpuses | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| donc | 519 | 86 | 1230 | 347 | doncques | 9 | 1 | 1353 | 313 |
| doncq | 0 | 0 | 68 | 14 | doncqez | 44 | 14 | 94 | 19 |
| doncq’ | 0 | 0 | 25 | 12 | donkes | 0 | 0 | 4 | 2 |
| doncque | 0 | 0 | 10 | 5 | donq | 0 | 0 | 26 | 12 |
| dunc | 777 | 49 | 0 | 0 |

*Remark:* 1 — Old French subcorpus, 2 — Middle French subcorpus, X₁ — absolute number of donc occurrences, X₂ — the number of donc in a postverbal position.

positions is illustrated by the following examples: *donc j’ai dit/* j’ai donc dit and *donc j’ai fait*/j’ai donc fait on the following charts (see Fig. 1, 2).

The graphs of the frequency distribution curves of these combinations demonstrate frequency fluctuations in the usage of donc in the two indicated positions and show the different functional demand for its prepositive and postpositive use. At the same time, the postpositive use of donc does not always prevail, as, for example, for the combination donc j’ai dit, the frequency of which has been characterized by growth in recent decades.

**iii.** The third way of donc use follows from the its ability to be combined with other core coordinators (*et donc*, *ou donc*, *mais donc*, etc.). For some scientists, this feature of donc is the basis for its exclusion from coordinating conjunctions (see [Rossari, Jayez 1996; Rossari 2002]. The analysis of corpus data shows that combinations of this kind represent a special case of the donc functioning⁴. The share of such co-occurrences does not exceed 0.9% of the total number of donc occurrences in the Frantext [FR] (see Table 3).

The *et donc* co-occurrence deserves special attention due to its greater frequency relative to other co-occurrences. There are two types of syntactic contexts with *et donc*. Firstly, a connection of two predicative independent units reflects an iconic sequence of events. *Et donc* profiles a temporal sense (ex. 4). Secondly, an elliptical combination of two nominal components results a copulative connection: in the second composed component there is no verb link. *Et donc* is used in a causal sense (ex. 5). *Cf.:

*…et si tenoie en ma main un encensier; et donc nous commençâmes à chanter a haute vois: Veni Creator ‘……and if there were in my hand*
Fig. 1. Frequency distribution of *donc j’ai fait/*j’ai donc fait* in [GBNgrV]
Fig. 2. Frequency distribution of *donc j'ai dit*/*j'ai donc dit* in [GBNgrV]
Table 3. The dynamics of donc co-occurrence with core coordinators

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<td>et donc</td>
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<td>715</td>
<td>825</td>
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<td>ou donc</td>
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<td>ni donc</td>
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<td>or donc</td>
<td>1</td>
<td>5</td>
<td>18</td>
<td>136</td>
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an incense burner; and so we began to sing aloud: Veni Creator’ (J. Le Long. Les Voyages en Asie au XIVe siècle du bienheureux frère Odoric de Pordenone, religieux de saint François, 1351);

Dans l'intervalle, voici que Plotine apprend enfin le secret de sa véritable identité: elle n’est autre que la fille de Clélius, née d’un premier mariage, et donc demi-sœur de Clélie, d’Octave, et même d’Horace, car la mère de ce dernier, qui l’avait conçu d’un premier lit, est celle aussi de Plotine… ‘In the meantime, Plotina finally learns the secret of her true identity: she is none other than the daughter of Clélieus, born from a first marriage, and therefore half-sister of Clélie, of Octave, and even of Horace, because the mother of the latter, who had conceived him from a first bed, is also that of Plotina…’ (M. de Clérie. Scudéry, Histoire romaine, 1654).

In the grammar of Cl. Vaugelas, et donc, interpreted as a legacy of the Gascon dialect, is accepted as a normative [Vaugelas 1970 (1647), p. 488]. The fact that et donc has fallen into disuse is stated in [Littré, 1964]. However, it continues to be used in modern language to connect two attributive5 (ex. 6) or nominal components (ex. 7), and also rarely in a compound sentence (ex. 8). Cf.

Je sais que les demoiselles sont bien plus à craindre, étant nécessairement plus spontanées, et donc plus moqueuses ‘I know that young ladies are much more to be feared, being necessarily more spontaneous, and therefore more mocking’ (P. Valéry. Variété, 1938);

J’avais cru bon d’informer les rimbaudistes qu’il était question de déplacer le cimetière de Charleville et donc la tombe d’Arthur Rimbaud ‘I had seen fit to inform the rimbaudists that it was a question of moving the Charleville cemetery and therefore the tomb of Arthur Rimbaud’ [Grevisse 2008, § 958, p. 1185];

Elle devait avoir vingt-deux ans, et donc elle était majeure ‘She must have been twenty-two, so she was adult’ (G. Duhamel. Cri des profondeurs, 1951).
The quantitative data obtained in the course of the study made it possible to trace the trajectory of the *donce* conjunctive potential development on the basis of establishing the trajectory of the development of its distributive properties. Initially, some written variants of the polyfunctional unit are used mainly in frontal distribution (P1 *donce* P2), others are used in the postposition to the verb in the personal form, and others act as concretizers of core coordinators (ConjСО *donce*). However, since the 17th century the share of post-verbal use of *donce* increases significantly.

The *donce* use as a core coordinator, taking into account the three ways of use presented above, is characterized by multidirectional trends: after a sharp decrease in use in the Middle French period, a slow increase follows. Compare the total relative indicators of the *donce* use as a core coordinator in five synchronous slices: 39.82% (Old French), 25.76% (Middle French), 54.34% (classical French), 56.09% (modern French), 61.95% (contemporary French).

It is obvious that *donce* retains its polyfunctional status for a long time, which, in our opinion, is explained both by the debatable nature of its origin and by the tracing of Latin texts in the early period of the French language. The unification of *donce* written variants by the French Academy does not affects the distribution and functional specifics of the item.

**Conclusion**

The obtained results of the study complement the previous scientific knowledge about the functioning and syntactic mobility of *donce* since the early period of the development of the French language with quantitative indicators. The revealed relative indicators of the *donce* use as a coordinator indicate a gradual change in its distributive properties, and a reduction in the share of uses to establish a connection in the initial position.

The study on the trajectory of the development of *donce* distributive properties is necessary to clarify its categorical status and require comparison with data of this kind regarding 1) the items *car* and *or*, which, in the course of language development, move from the category of polyfunctional items to core coordinators, and 2) causal linking words *alors, par conséquent, ainsi, par suite*, semantically similar to *donce* and acting as its analogues in some contexts.

**Sources**


Dictionaries


References


