Functional transposition of *TILL* and *UNTIL* from a diachronic perspective

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Abstract

The research traces the development of functional transposition of *TILL* and *UNTIL* in English. The study covers 16 historical periods and is based on 1,243 examples extracted from the writings from 850 to 1710, which are analyzed without resorting to any corpus software; 2,225 examples from 1710 to 1920, which are automatically tagged utilizing the corpus toolbox Lancsbox; and the statistical data on 127,544 examples over the period of 1920–2020. It is hypothesized that despite being synonyms and representatives of the same grammatical categories of prepositions and conjunctions in modern English, the lexical units *TILL* and *UNTIL* were initially formed as prepositions and later, following their own transpositional patterns, they were transposed into conjunctions.

Key words: functional transposition; preposition; conjunction; adverb; Old English; Middle English; Early Modern English; Late Modern English, Present-Day English.

1. Introduction

In the theory of functional transposition, the case of the lexical units *TILL* and *UNTIL* occupies a unique and isolated place. Unlike the other lexical units, which are subject to functional transposition and overlap within the categories of the preposition and the adverb (Kovbasko 2022a; 2022b; 2022c), *TILL* and *UNTIL* are the only lexical units whose overlapping in Present-Day English is observed between the categories of the preposition and the conjunction. Moreover, contemporary dictionaries, such as the Longman Dictionary of Contemporary English Online, the American Heritage Dictionary of the English Language, the Merriam-Webster Dictionary, the Macmillan English Dictionary, the Cambridge Advanced Learner's Dictionary, and the Collins English Dictionary, interpret *TILL* and *UNTIL* as mutually interchangeable prepositions and conjunctions. Both of them are characterized by

two fully institutionalized temporal meanings - 'up to the time of/that' and 'before.' Besides, there are two partially institutionalized meanings, the first is 'as far as,' which is locative and ascribed to the category of the preposition. Another meaning is 'to the point or extent that,' which belongs to the category of the conjunction and represents temporality. This correlation of fully and partially institutionalized meanings of locality and temporality showcases that *TILL* and *UNTIL* are marked by the identical meaning and functions; however, the process of language development, particularly in the Middle and Early Modern English periods, proves that the situation has not always been the same. Furthermore, it is obvious that the overlapping of *TILL* and *UNTIL* as the representatives of the grammatical categories of prepositions and conjunctions is not a unique development of the 20th–21st centuries, but a result of functional transposition.

In the present paper, functional transposition is interpreted as a dia-chronic-synchronic functional process, which presupposes the ability of lexical units by means of grammaticalization and lexicalization and without application of any morphological and/or syntactical markers, to acquire and realize functions inherent to other word classes but remain within its original word category.

Therefore, the paper aims to trace the functional transposition of the lexical units *TILL* and *UNTIL,* which overlap within the categories of the preposition and the conjunction in Present-Day English. It is hypothesized that despite being factual duplicates, the lexical units *TILL* and *UNTIL* have been following different developmental pathways and their transpositional patterns have been distinctive as well. The study of the transpositional potential of these lexical units requires the analysis of their historical semantics to track the emergence and development of each meaning individually and the diachronic corpus analysis of both lexical units.

2. Theoretical background

Regarding the process of functional transposition, some terms help understand it better, viz. institutionalization, (de)actualization, and cognitive readiness. Institutionalization of the transposed lexical unit is defined as an integration of the lexical unit with its primary form and meaning but its secondary function into the current lexicon as a result of the general comprehension, perception, and usage of the lexical unit in this secondary function by the speakers, who register and codify it both in dictionaries and corpora (synchronous discourse). Thus, a lexical unit is considered to be fully institutionalized if it is registered by all leading dictionaries of the language and can be found actively functioning in current discourse, i.e. can be found in synchronous corpora. Institutionalization of the lexical unit is achieved in

the process of language development, which starts with the actualization of the lexical unit. The actualization of the transposed lexical unit does not match or equal its transposition or institutionalization. In quantitative terms, the actualization of the transposed lexical unit starts when its usage in the new category reaches at least 10% in comparison to its functioning in the initial category, cf. Sternina (2014). The transposed lexical unit, which has been actualized, has two options for further development. It either proceeds with its actualization, which may achieve any level of institutionalization (partial or full) or, at any time, the lexical unit may start the process of deactualization by decreasing its presence in the transposed category.

The main factor that triggers functional transposition, promotes further actualization and defines a possible level of institutionalization of the transposed lexical unit is the speakers' cognitive readiness. The notion of cognitive readiness has been adapted for functional transposition theory, cf. Fletcher (2006), and is defined as the mental preparation (including skills, knowledge, abilities, motivations, and dispositions) of speakers to introduce, establish, advance, perform and perceive the newly initiated language changes, which, at the moment of introduction, are regarded as linguistically inappropriate, erroneous, or ignorant.

To some extent, the phenomenon of functional transposition is close to other well-studied processes. Such overlapping is observed between functional transposition and conventional phenomena, such as translation (Tesnière, 1959), derivation (Sweet, 1892; Kurylowicz, 1962; Kisselew et al., 2016; Li et al., 2020), conversion (Kruisinga, 1932; Robert, 2003; Bram, 2011; Gadimova, 2021), and zero-derivation (Jespersen, 1932; Lipka 1990; Don, 2005; Arista, 2019). Even though the latter two terms are often viewed as alternatives and both are word formation processes, I strictly differentiate between them based on the 'overt analogue criterion.' Zero-derivation is observed when "one word can be derived from another word of the same form in a language (only) if there is a precise analogue in the language where the same derivational function is marked in the derived word by an overt (nonzero) form" (Sanders, 1988: 165), whereas conversion requires a modifying element. Functional transposition is also associated with the notions of transcategorization (Halliday & Matthiensen, 1999; Ježek & Ramat, 2009; He & Yang, 2014; Ramat, 2019), transcategoriality (Robert, 2005; Orlandini & Poccetti, 2014; Hancil, 2018), and recategorization (Dubinsky & Williams, 1995; Štekauer, 2005; Vea, 2015; Goethem & Koutsoukos, 2018); however, categorial changes illustrated by the phenomena enumerated above undoubtedly describe word-formation processes to which functional transposition does not belong, because it does not form new lexical units, but transposes lexical units from one category to another, and make them function as its representative.

The theory of functional transposition follows and modifies the idea of the classical triad 'meaning-form-function,' which is supposed to differentiate between word classes. Grammarians failing to apply all three categories simultaneously prefer building classifications based on one of them, cf. Sweet (1892: 39) states that "the question, which part of speech a word belongs to is thus one of form, not of meaning" or Sheffield (1912: 91) offers to take a function as a ground. Jespersen (1924: 60) emphasizes that "form, which is the most obvious test, may lead to our recognizing some word-classes …, and that meaning, though very important, is most difficult to deal with, and especially that it is not possible to base a classification on short and easily applicable definitions." On the other hand, some linguists declare that "everything should be kept in view, form, function, and meaning" (Jespersen, 1924: 60) and "words in different tongues may combine answering features of content, function, and form, in such diverse ways that cross-divisions among them are inevitable" (Sheffield, 1912: 90). It makes me offer the approach that a new lexical unit is necessarily characterized by the change of at least two or even all three categories, e.g. bottle (n) versus bottle (v) in 'to be bott**led**' or up/down (prep) versus up/down (n) in 'the up**s** and down**s**,' etc. If only one category is changing, there are grounds to speak of some categorial shifts, e.g. functional transposition. As a rule, such shifts are observed between closed and closed, or closed and open word classes, which do not get into the scope of traditional processes like conversion, are poorly identified in linguistics and, thus, make the subject of the present paper.

3. Methodology

To provide a fundamental empirical basis for the following analysis of functional transposition, several fundamental corpora have been applied to form the core of the research, supporting a continuous diachronic flow of the analysis.

The research comprises The Helsinki Corpus of English Texts: Diachronic and Dialectal (HCET), which is the first English long-time-span diachronic corpus that covers the texts (c. 1.5 m words) from early Old English to the end of Early Modern English (-850–1710). The Late Modern English period (1710–1920) is based on The Corpus of Late Modern English Texts (CLMET), which represents formal British English (c. 15 m words), varying in genres and styles. Present-Day English (1920-2020) is represented by the statistical data from The Corpus of Historical American English (COHA), and The British National Corpus (BNC). The COHA is the largest structured corpus of historical English, which contains over 475 m words. However, the research focuses only on one of its subperiods – 1920–1990. The BNC is a col-

lection of 100 m words of British English from the late 20th and early 21st centuries (1990–2020) and forms the last stage of the analysis. In addition, examples from The Oxford English Dictionary (OED) have been analysed and added to the overall statistics.

Periodization into Old English, Middle English, and Modern English, which is considered to be classical (Baugh & Cable, 2002; Hogg & Denison, 2006), is ineffective because it does not allow tracing the evolution of the lexical units in appropriate steps. Thus, to provide an extensive and comprehensive review of functional transposition between the categories in the history of English, the empirical material from the abovementioned corpora and the research itself is subdivided into 16 historical scopes, see Table 1.

Table 1: Key historical scopes of the English language in studying functional transposition

№	Time span	№	Time span	№	Time span	№	Time span
1	–850	5	1150–1250	9	1500–1570	13	1780–1850
2	850–950	6	1250–1350	10	1570–1640	14	1850–1920
3	950–1050	7	1350–1420	11	1640–1710	15	1920–1990
4	1050–1150	8	1420–1500	12	1710–1780	16	1990–2020

These 16 historical scopes constitute a traditional periodization, representing a division into Old, Middle, and Modern English. The Old English (hereinafter – OE) period is comprised of the first 4 historical scopes (–850–1150); Middle English (hereinafter – ME) covers the next 4 scopes (1150–1500); the remaining 8 scopes (1500–2020) belong to the Modern English (hereinafter – ModE) period, which is subdivided into Early Modern English (hereinafter – EModE) from 1500 to 1710, Late Modern English (hereinafter – LModE) from 1710 to 1920, and Present-Day English (hereinafter – PDE) from 1920 to 2020. To balance the research and succeed in corresponding to a traditional division, the span of each scope ranges from 70 to 100 years. The span of 100 years is used for manuscripts written before 1350 and is explained by the necessity to collect a reasonable number of manuscripts and lexical units under study. The spans of 70-80 years are applied to balance the previous periods and are fully adequate for the transpositional shifts to be actualized in the language. The last stage of the PDE period covers only 20 years, however, the number of texts, examples for the analysis, and statistical data are more than sufficient and exceed the data of any other time span.

Therefore, the design and procedure of the diachronic corpus research are as follows: 1,243 examples have been extracted from the HCET and manually analyzed and tagged as corresponding parts of speech; 2,225 examples have been extracted from the CLMET and automatically tagged us-

ing the corpus toolbox Lancsbox; the compiled statistics on 127,544 examples have been retrieved from the COHA and the BNC. The analyzed statistical data for each of the 16 historical scopes are represented in relevant tables. To showcase the general process of functional transposition of TILL and UNTIL in the English language, the corresponding graphs have been constructed.

4. Results and discussion

4.1. *Functional semantics of TILL in diachrony*

4.1.1. *The preposition TILL*

The definitional analysis has revealed that in PDE the preposition *TILL* represents temporality. Nevertheless, at the time of its actualization, the preposition *TILL* was used to convey traditional locative relations:

(1) *Hweþræ þer fusæ fearran kwomu æþþilæ til anum.* (OED: The Ruthwell Cross. Inscriptions: 126)

(2) *Swerdis ... War till the hyltis all bludy.* (OED: Barbour: The Bruce x: 682)

Over time, locative relations had undergone metaphorization, when the point, represented by *TILL*, was not a point in space but a certain abstract or actual notion:

(3) *Þu þohhtesst tatt itt mihhte wel Till mikell frame turrnenn* (OED: The Ormulum: 18)

The development of the preposition *TILL*, in particular its locative functions, was accompanied by its overlapping with the lexical unit *TO*. It is worth noting that the unit *TILL* was borrowed from Old Norse (the North Germanic branch), whereas the unit *TO* belonged to the West Germanic languages. Hence *TO* appeared and gained a foothold in Old English earlier. Taking this into account, the lexical unit *TILL* was actualized in Old English, but it could not fully represent the functions that had already been inherent to the unit *TO*:

(4) *Ilk man ... God made til his awen lyknesse.* (OED: Hampole, R.: The pricke of conscience: 90)

(5) *Þat he may at his ending haue heuin till his mede.* (OED: Minot, L.: The Poems of Laurence Minot xi: 40)

(6) *Ða cueð til him ðe hælend.* (OED: Lindisfarne Gospels Matthew xxvi: 31)

In example (4), *TILL* is used to convey the meaning of conformity 'in accordance with, after;' in sentence (5), it represents the meaning of purpose 'to or for the purpose of, in order to;' and in sentence (6), *TILL* is used to

introduce an 'indirect object or dative relation.' Hence, in all examples, it is possible to observe functional substitution of the preposition *TO* with the lexical unit *TILL*.

Compared to the locality, temporality started being represented by the preposition *TILL* somewhat later. Nevertheless, the absence of common ground for semantic overlapping with other lexical units like *TO* made it possible for the preposition *TILL* not only to become actualized but also to be institutionalized in the language to the full extent:

(7) *Fro Eneas till Brutus tyme.* (OED: Manning, R.: The Story of England: 27)

(8) *I neuer saw her till this time.* (OED: Shakespeare, W.: The Comedy of Errors: 164)

Sentence (7) showcases the use of *TILL* in the meaning 'up to the time of.' The second meaning 'before,' which is extremely common for the preposition *TILL* in PDE, is exemplified by sentence (8). These meanings are still predominant for the preposition *TILL*.

4.1.2. *The conjunction TILL*

In the beginning, the conjunction *TILL* was used to represent temporality:

(9) *Þar he nam þe biscop ... & ... hise neues & dide ælle in prisun til hi iafen up here castles.* (OED: *The* AS Chronicle (Laud. MS.): 1137)

(10) *Ðer-ouer he fleȝeð, and up he teð, Til ðat he ðe heuene seð.* (OED: Bestiary: 65)

Example (9) shows the use of *TILL* in its modern fundamental meaning 'to the time that; up to (the point) when,' whereas sentence (10) indicates the specification of the result of the action or its degree.

Temporality was also represented by the conjunction *TILL* in the meaning 'before (a specified time)' (see 11, which is still common in contemporary English). Overlapping with the unit *BEFORE* was partial and could be explained by the necessity to introduce subordinate clauses with negation and, as a result, *TILL* managed to institutionalize in the language.

(11) *Ne stireð he nout of slepe Til ðe sunne haueð sinen ðries him abuten.* (OED: Bestiary: 19)

It is worth noting that the conjunction *TILL* represented duration within temporality (see 12). However, overlapping with other lexical units such as *WHILE, SO LONG THAT,* etc. did not contribute to the institutionalization of *TILL* in the abovementioned function.

(12) *His childre he wild auance tille he o lyue were.* (OED: Manning, R.: The Story of England: 18)

Therefore, the conjunction *TILL* has been institutionalized in those meanings which have not undergone full or partial overlapping with other lexical units.

4.1.3. *The adverb TILL*

Old Norse origin of *TILL* and its close association with Old English *TO* played a significant role in the functioning of *TILL* as an adverb, in particular when *TILL* was used as a constituent of set phrases (see 13), or a lexical unit which characterized other units (see 14):

(13) *Þat water moght rin fra and till, Vte of þe flum al atte will.* (OED: Cursor Mundi: 11937)

(14) *I with al good conscience haue lyued bifore God, til into this dai.* (OED: Wyclif: Acts xxiii: 1)

Nevertheless, these factors, as well as the high frequency and functionality of the unit *TO*, predetermined the fact that the adverb *TILL* has not been institutionalized in the language.

4.2. *Functional semantics of UNTIL in diachrony*

4.2.1. *The preposition UNTIL*

From the morphological point of view, the lexical unit *UNTIL* is a combination of the prefix *UN* and the preposition *TILL*, so the inner semantic development of the preposition *UNTIL* was determined by the meanings and functions of *TILL*. When *UNTIL* was formed in the language, the lexical unit *TILL* functioned exclusively as the preposition and did not undergo functional transposition into the other categories. That is why, it is substantiated that the major constituent of the unit *UNTIL* is the preposition *TILL*, which, at that time, represented locality and functioned to introduce the indirect object, and this influenced the preposition *UNTIL*:

(15) *Forr whatt teȝȝ fellenn sone dun Off heoffne unntill helle.* (OED: The Ormulum: 1399)

The preposition *UNTIL* in sentence (15) is used synonymously with the units *TILL* and *TO* in order to define the movement to a certain object.

In fact, by means of direct and indirect representation of locality and introduction of indirect object, the preposition *UNTIL* acquired other meanings:

(16) *... Ne wald noght here bot þair delices, Þat drogh þam vntil oþer vices.* (OED: Cursor Mundi: 23286)

(17) *Vntil his broþer nith he bare.* (OED: Cursor Mundi: 1069)

In sentence (16), the preposition *UNTIL* is used to indicate the movement to different vices, that is a collateral representation of direction, and in sentence (17), it is used to specify the person to whom the feelings are addressed.

Morphological and semantic dependence of the preposition *UNTIL* on the preposition *TILL* does not mean their interdependence in the process of further development. For instance, representation of locality in the meaning of 'as far as; so as to reach' at first was a characteristic feature of *UNTIL* (see 18) and later it was registered for the basic unit *TILL*:

(18) *Fro þe Weste or Est vntil Moungow He was told of non honour.* (OED: Manning, R.: The Story of England: 10554)

The initial representation of temporality by the preposition *UNTIL* was observed before or at the same time with the preposition *TILL*:

(19) *Stil ai stod þai wandes thre Fra adam tim until noe.* (OED: Cursor Mundi: 1424)

(20) *Straungers ... will not vtter their wares ... vntill the Faire.* (OED: Select pleas of the court of Star chamber (Selden) II: 267)

First of all, it proves that from the moment of its formation, the preposition *UNTIL* has been functioning as an independent lexical unit, capable of extension or contraction of its semantics. Nevertheless, all meanings both obsolete and current are synonymic with those of the preposition *TILL*.

4.2.2. *The conjunction UNTIL*

The initial function of the conjunction *UNTIL* is to represent temporality, which simultaneously appeared in the categories of the preposition and the conjunction:

(21) *[They were in woe] Vntil Crist loked þaim vnto.* (OED: Harrowing of Hell 29)

(22) *For lauerd sal noght his folke schouue awai, ... Vntil þat rightwisenes Be turned in dome.* (OED: Vespasian Psalter xciii: 15)

As in the case of the preposition, the conjunction *UNTIL* duplicated the functions, which were inherent to *TILL* in the meanings 'before,' 'so long that,' etc.:

(23) *One tale is good vntill another's told.* (OED: Weever, J.: The Mirror of Martyrs A3b)

(24) *In water first this opium relent, Of sape vntil hit ha similitude.* (OED: Palladius on Husbondrie iii: 1143)

The conjunction *UNTIL* acquired other semantically similar meanings with *TILL*, which were not registered in the language. Moreover, the ety-

mology of the adverb *UNTIL* has not been officially registered in English grammar; however, this is the subject of the diachronic corpus analysis.

4.3. *Diachronic corpus analysis of TILL*

The analysis of historical semantics of the unit *TILL*, first of all, testifies its Old Norse origin from the lexical unit *TILAN*, which was an equivalent to *TO* in Old English, which shows that *TILL* appeared in Old English later than *TO*. Secondly, the use of *TILL* was widely spread in the northern dialects, the analysis of which, especially the cases before 800, was limited to the study of not genuine texts reconstructed in the Late West Saxon dialect (Toon, 1992: 428). Therefore, I assume that in the process of reconstruction, a large number of the units *TILL* were lost in favor of *TO*, which prevailed in the southern dialects (see 25a):

(25)   *He aerist scop aelda barnum heben til hrofe,* (HCET: Anonymous: Cae dmon's Hymn: 7)

(25a)   *He ærest sceop ielda bearnum heofon to hrofe* (Greenblatt et al., 2006: 24)

Sentence (25) illustrates the use of the preposition *TILL* in the poem '*Caedmon's Hymn*,' which was written in the Northumbrian dialect. Sentence (25a) represents the reconstruction of the example, where *TO* is used instead of *TILL*. This process, of course, had a great influence on the number of units which were extracted and analyzed in the course of the diachronic corpus analysis of the OE language. Nevertheless, the results of the diachronic corpus analysis show that throughout the OE period the lexical unit *TILL* was used exclusively as the preposition:

(26)   *Hweþræ þer fusæ fearran kwomu æþþilæ til anum.* (OED: The Ruthwell Cross. Inscriptions: 126)

(27)   *Ða cueð til him ðe hælend.* (OED: Lindisfarne Gospels Matt. xxvi. 31)

(28)   *Hyne þa mid handa heorodreorigne, þeoden mærne, þegn ungemete till winedryhten his wætere gelafede, hilde sædne,* (HCET: Anonymous: Beowulf: 2105)

Overlapping with the lexical unit *TO* is observed when *TILL* was used to introduce an indirect object (see examples 27–28), as this function had already been inherent to the unit *TO*.

Therefore, the overall corpus analysis of the OE period (see Table 2), gives grounds to state that *TILL* functioned only as a preposition.

Table 2: Correlation of *TILL* as the preposition, the adverb, and the conjunction in Old English

PoS	–850	850–950	950–1050	1050–1150
Preposition	*100%*	*100%*	*100%*	*100%*
Adverb	----	----	----	----
Conjunction	----	----	----	----

The statistical data in Table 2 undoubtedly show that the category of the preposition was initial for the lexical unit *TILL*. It is worth noting that the introduction of an indirect object was one of the two main functions of the preposition *TILL*, which were in active use after *TILL* became a marker of locative relations. In early ME (1150–1250), *TILL* started shifting and extending its semantics by representing temporality:

(29) *ac he ne bihet noht þe lif til amoregen;* (HCET: Anonymous: Trinity Homilies (12): 140)

(30) *... Till Cristess dæþ o rode,* (HCET: Orm: The Ormulum: 464)

In sentence (29), the preposition *TILL* is used in combination with the temporal complement *AMOREGEN*, whereas in sentence (30), temporality is represented using the complement *DÆÞ*, which is not a direct temporal unit. According to the *OED*, for the first time, the preposition *TILL* started to represent temporality only in the middle of ME (after 1330). Nevertheless, the diachronic corpus analysis proves that it had happened much earlier (see 29).

Besides, the preposition *TILL* was used to represent locality (see 31), and functioned to introduce an indirect object, as in (32):

(31) *& off þatt he wisslike stah Þa siþþenn upp till heffne,* (HCET: Orm: The Ormulum: 173)

(32) *Forr þatt itt waȝȝneþþ Crist till menn Þurrh fowwre Goddspellwrihhtess,* (HCET: Orm: The Ormulum: 429)

Semantic extension by representing temporality contributed to the actualization of functional transposition of the preposition *TILL* into the conjunction:

(33) *& dide ælle in prisun til he iafen up here castles.* (HCET: Anonymous: The Peterborough Chronicle: 46)

(34) *for he besæt heom til hi aiauen up here castles;* (HCET: Anonymous: The Peterborough Chronicle: 181)

It should be specified that syntactic peculiarities of the category of a preposition, in particular the presence of a complement, did not contribute to the process of functional transposition, so that, in the majority of cases, the

lexical unit *TILL* syntactically remained a preposition but functioned as a conjunction:

(35) *& fra þiss daʒʒ þu shallt ben dumb Till þatt itt shall ben forþedd* (HCET: Orm: The Ormulum: 586)

(36) *& swa þeʒʒ leddenn heore lif Till þatt teʒʒ wærenn alde* (HCET: Orm: The Ormulum: 811)

Taking into account the definition of functional transposition, the lexical units *TILL* in these sentences are interpreted as prepositions. However, these constructions, in my view, form a noteworthy reserve for further functional transposition.

Therefore, the first stage of the ME period is marked by two key factors: semantic extension of *TILL* by representing temporality and functional transposition of the preposition into the conjunction based on temporality.

The predominant tendency of the second stage (1250–1350) of the ME period is the progress of functional transposition of the preposition *TILL* into the category of conjunction. First of all, the number of conjunction *TILL* grew significantly in comparison to the previous stage. The reason for this is that, from the cognitive point of view, speakers were ready to perceive the use of the preposition *TILL* without a complement and functioning as a conjunction:

(37) *... ðurg skies sexe and seuene til he cumeð to heuene;* (HCET: Anonymous: A Bestiary: 85)

(38) *And rod ouer dale & doun, Til he com to a gret toun;* (HCET: Anonymous: The Romance of Sir Beues of Hamtoun: 772)

Along with that, the language was filled with the constructions *TIL ÐAT*, where *ÐAT* was a formal desemantized marker of the category of a preposition, whereas *TILL*, despite the presence of a complement, functioned as the conjunction:

(39) *Sparede he neyþer tos ne heles Til þat he to þe castel cam,* (HCET: Anonymous: Havelok: 366)

(40) *ðer-ouer he flegeð, and up he teð, til ðat he ðe heuene feð,* (HCET: Anonymous: A Bestiary: 83)

These constructions testify to the inner transpositional potential of *TILL* and explain the growth in its functioning.

Another significant landmark of the period is a functional transposition of the preposition *TILL* into the category of the adverb:

(41) *Þat water moght rin fra and till, Vte of þe flum al atte will.* (OED: Cursor Mundi: 11937)

One of the factors which contributed to the functional transposition of the preposition *TILL* into the category of adverb, as well as the transfer of the preposition into the postposition to its complement (preposition stranding) (see 42), was the necessity to follow the verse structure of the poems. Another factor which propelled functional transposition was the ability to omit the subject (see 43):

(42) *Hwan he kam þer he was ful wil, Ne hauede he no frend to gangen til.* (HCET: Anonymous: Havelok: 330)

(43) *Þe gode erle of Aniowe, of Mald herd he say Fulle richely to trowe tille tok his way.* (OED: Manning, R.: The Story of England: 107)

In the second part of the ME period, the abovementioned tendencies were preserved and enhanced. For instance, this period is characterized by the growth of sentences with stranded prepositions (see 44); actualization of the transposed category of the adverb *TILL* (see 45); and deactualization and disappearance of the constructions with the formal desemantized marker *ÐAT* (see 46):

(44) *Þan Saint Peter come him till And said* (HCET: Anonymous: The Northern Homily Cycle: 151)

(45) *... þere abode with þe kyng Syward til oppon a tyme þat he come aȝeyne,* (HCET: Anonymous: Brut (1333): 190)

(46) *And y haue seye make a plaster of hey askes ytempered with pysse y-leide to þe corn til þat he a-rise.* (HCET: Anonymous: A Treatise on Horses: 484)

In this period, the functional transposition of *TILL* into the adverb became more frequent. However, the adverb *TILL* was not actualized in the language. The increase in the number of transposed lexical units occurred due to the attempts to qualify the lexical units *TO, INTO, UNTO* by means of the adverb *TILL*:

(47) *and he smoot hem, and pursuede hem til to Hoba,* (HCET: Anonymous: The Old Testament (Wycliffe): 800)

It is worth mentioning that over 90% of such cases of functional transposition into the category of adverbs were found in the works of J. Wycliffe. This leads us to the conclusion that functional transposition of the preposition *TILL* into the adverb was not a universal phenomenon, which generally characterized the English language. As a result, the frequency of the adverb *TILL* decreased in late ME. In the majority of cases, the preposition *TILL* was used to introduce an indirect object and functioned as a synonym to the preposition *TO* (see 48), whereas the predominant function of the conjunction *TILL* was to represent temporality directly or indirectly (see 49):

(48) *when he spac til ure lauerd with muþe* (HCET: Anonymous: The Bene-
dictine Rule: 61)

(49) *for at þe last he wil þus jangle euer more and more til he bring þee lower to
þe mynde of his Passion* (HCET: Anonymous: The Cloud of Unkno-
wing: 317)

This factor explains the high frequency of the preposition *TILL* during
this period of the English language. Considering the results of the definition
analysis of *TILL* in modern English, we can say that the preposition *TILL* lost
its ability to introduce an indirect object in favor of *TO* due to a general re-
duction in the frequency of the preposition *TILL*. The overall development of
the initial and transposed categories throughout the ME period is illustrated
in Table 3.

Table 3: Correlation of *TILL* as the preposition, the adverb, and the conjunc-
tion in Middle English

PoS	1150–1250	1250–1350	1350–1420	1420–1500
Preposition	94.7%	55.2%	56.2%	71.8%
Adverb	----	3%	7.4%	2.2%
Conjunction	5.3%	41.8%	36.4%	26%

Actualization of functional transposition of the preposition *TILL* in the
category of adverb is observed in the ME period. However, it did not be-
come widespread, while the already transposed conjunction *TILL* managed
to actualize in the language.

From the point of view of functional semantics, the EModE period is a
crucial juncture for the process of functional transposition of *TILL*. The first
stage (1500–1570) is marked by the normalization of the functions of *TILL*
and *TO*, as a result of which they ceased overlapping and the lexical unit *TO*
started introducing an indirect object. Nevertheless, the preposition *TILL*
could still represent locality (see 50), but this function was indistinctive and
infrequent, because the preposition *TO* preserved this function as well.
Therefore, the predominant relations expressed by the preposition *TILL*
were limited to temporality, as in (51):

(50) *A mans eye may leade hym from euery part of the tree tyll euery parte of
the shadowe.* (HCET: Fisher, J.: Sermon (against Luther) & Sermon (on
Good Friday): 48)

(51) *and the Parlyament was prolongyd tyll ye tuysday folowynge the sayd day
of Coronacyon.* (HCET: Fabyan, R.: The New Chronicles of England
and France: 27)

The abovementioned semantic contraction of the preposition *TILL* to-
gether with its previously infrequent representation of temporality stipulat-

ed the fact that temporal relations were predominantly expressed by the conjunction *TILL*:

(52) *And further, that upon payne of his allegeaunce he shal kepe his house, and commone with no maner suspecte persone tyll we shall further declare unto hym your graciouse pleasur.* (HCET: Anonymous: A Letter by the Lords of the Council (to the King): 24)

Hence, the tendency, which originated in OE when functional transposition of the preposition *TILL* into the conjunction was based on temporality, became predominant in the ME and the ModE periods. It doubled the number of the conjunctions *TILL* in comparison to the previous stages. Functional transposition of *TILL* into the category of adverb was unproductive and is almost not registered during this period:

(53) *Most Sorrowfull a bode tyll in the mornyng …* (HCET: Torkington, R.: Ye Oldest Diarie of Englysshe Travell: 361)

Such sporadic use of the adverb *TILL* had been observed up to the end of the EModE period (see Table 4), and its frequency had not exceeded 3.2%. It must be stated that at the beginning of ModE the adverb *TILL* could not actualize in the language, i.e. the process of functional transposition of the preposition into the adverb failed. Another crucial factor in the EModE period was unification of the word forms of the lexical unit. At the first stage (1500–1570), there were at least 5 different forms of *TILL*, viz. *TIL/TILL/TYL/TYLL/TYLLE*, whereas at the last stage (1640–1710) of the EModE period, there was only one. Table 4 represents generalized statistical data on the use of *TILL* in Modern English.

Table 4: Correlation of *TILL* as the preposition, the adverb, and the conjunction in Modern English

PoS	1500–1570	1570–1640	1640–1710	1710–1780	1780–1850	1850–1920	1920–1990	1990–2020
Preposition	31.7%	27.7%	32.6%	37.3%	32.3%	32.6%	38.7%	45.4%
Adverb	3.2%	2.2%	2.1%	----	----	----	----	----
Conjunction	65.1%	71.1%	65.3%	62.7%	67.7%	67.4%	61.3%	54.6%

After the crucial developments in EModE, which led to a significant quantitative increase in the number of the conjunction *TILL*, decrease in the category of the preposition *TILL*, and disappearance of the adverb *TILL*, the correlation between the abovementioned categories has entrenched. The general correlation of the prepositions, adverbs, and conjunctions *TILL* from the diachronic perspective of the English language is shown in Graph 1.
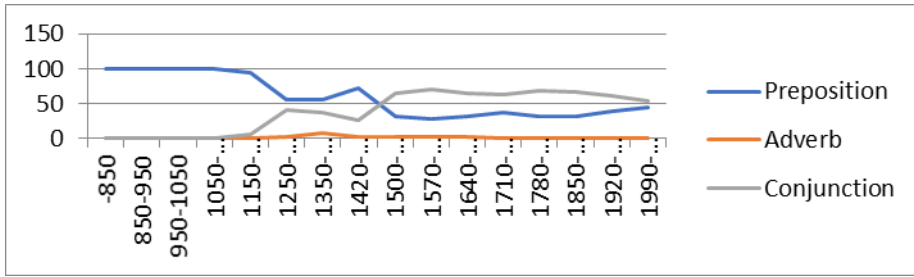
Graph 1: Functional transposition of *TILL* in the English language

The x-axis indicates the time spans of the English language since 850 and up to 2020 and the y-axis represents the percentage (from 0% to 100% max) of each category during a given time span in history. The time spans differ in duration, see Table 1, however, it is not visualized on the graph. Graphic representation of the correlation between the prepositions, adverbs, and conjunctions *TILL* in the English language proves that the lexical unit *TILL* was formed as the preposition in the OE period, and before the ME period it had been functioning only as a representative of this category. In early ME, speakers were cognitively ready to perceive the use of the preposition *TILL* without a prepositional complement, so the process of functional transposition started. At the next stage of the ME period, the preposition *TILL* was transposed into the category of adverb. However, the adverb *TILL* had not been actualized and institutionalized in the language and this category finally became obsolete after having been in use for about 500 years. The conjunction *TILL*, on the contrary, has undergone semantic extension and has significantly supplanted the initial category of the preposition. In PDE, *TILL* has been developing within the categories of conjunction and preposition, the quantitative correlation is currently characterized by a tendency to a gradual reduction in the use of the conjunctions and growth in the number of prepositions.

4.4. *Diachronic corpus analysis of UNTIL*

The lexical unit *UNTIL* appeared in the language in early ME. In this period, the preposition *TILL,* being a basic constituent of *UNTIL*, started acquiring new meanings and initiated the process of functional transposition into the category of the conjunction and later into the adverb. The emergence of the preposition *UNTIL* is directly related to functional transposition of the preposition *TILL* into the category of the adverb to modify and intensify its meaning '*to.*' During this process, it is possible to observe the attempts to qualify and enhance the preposition *TILL* with the prefix *UN*, which, had identical meanings. This resulted in the formation of the new preposition

UNTIL, because at that time functional transposition of *TILL* into the categories of the conjunction and the adverb had not been finished, so there are no reasons to speak about *UNTIL* as the conjunction or the adverb. Moreover, the diachronic corpus analysis proves that in all early ME (1150–1250) examples *UNTIL* functioned as the preposition:

(54) *Forr whatt teȝȝ fellenn sone dun Off heoffne unntill helle.* (OED: The Ormulum: 1399)

(55) *& swa itt wass aȝȝ-till þatt Crist Wass borenn her to manne.* (HCET: Orm: The Ormulum: 644)

Example (54) illustrates a classical use of the preposition with a complement, in sentence (55), the preposition *UNTIL* is combined with the desemantized *ÞATT*, which is a formal desemantized marker of the category of the preposition. The presence of such markers testifies to the cognitive readiness of language users to actualize functional transposition of the preposition into the conjunction. Nevertheless, it was not that easy to carry out this process immediately due to the grammatical canons, which require combining prepositions with complements.

At the next stage (1250–1350), alongside with the preposition *UNTIL* (see 56-57), a number of the conjunctions *UNTIL* (see 58) were used:

(56) *Þe folk vntille Humber to Suane gan þei loute.* (OED: Manning, R.: The Story of England: 42)

(57) *For lauerd sal noght his folke schouue awai, ... Vntil þat rightwisenes Be turned in dome.* (OED: Vespasian Psalter xciii: 15)

(58) *Þei duelled þer for drede, Untille þe kyng turned, & his wrath ouer ȝede.* (OED: Manning, R.: The Story of England: 56)

Therefore, this stage is the starting point for the process of functional transposition of the preposition *UNTIL* into the conjunction. Actualization of the transposed conjunction *UNTIL* is characterized by high frequency, so it is possible to speak of its actualization at the first stage of its transposition. High frequency of the transposed unit is explained by an abundance of the constructions *UNTIL + THAT*, which were in use at the previous stage, even before transposition. It should be mentioned that not all of these constructions had been transposed and in some cases *UNTIL* continued forming conventional prepositional phrases, however, *UNTIL* functioned as the conjunction, cf. sentence (57). The presence of such constructions ensured functional transposition into the conjunction.

In the second part of the ME period (1350–1500), the level of institutionalization of the conjunction *UNTIL* (see 59), grew and stabilized, supporting the assumption that actualization of the transposed conjunction and its institutionalization occurred at the same historical stage. The constructions *UNTIL + THAT* were gradually disappearing, as well as the reserve for func-

tional transposition on the basis of grammaticalization and lexicalization. Nevertheless, the potential for further transposition was preserved due to the speakers' cognitive processes and the evolution of the language in general:

(59) *Þe foule so tilled him furth þat tide Vntill a wode was þarbiside.* (HCET: Anonymous: The Northern Homily Cycle: 737)

(60) *For þan he had may rachell wedd, Lia he stall vn-til his bedd;* (HCET: Anonymous: Cursor Mundi: 605)

Despite the attempts to transpose the preposition *TILL* into the category of the adverb, such processes were not observed in the case of the preposition *UNTIL*. I explain it by the fact that the functioning of the transposed adverb *TILL* was sporadic, non-actualized and could not serve as a pattern for the unit *UNTIL*. Therefore, the generalized results of the development of the initial and transposed categories are represented in Table 5.

Table 5: Correlation of *UNTIL* as the preposition and the conjunction in Middle English

PoS	1150–1250	1250–1350	1350–1420	1420–1500
Preposition	100%	76.5%	66.7%	69.6%
Conjunction	----	23.5%	33.3%	30.4%

According to the data of the diachronic corpus analysis, the initial category for *UNTIL* was the preposition, which became the starting point for functional transposition into the conjunction. The process of functional transposition was based on the grammaticalization of the complement *THAT*, which was transformed into a formal desemantized marker and the preposition *UNTIL* had undergone further lexicalization. Transposition of *UNTIL* into the adverb did not occur due to the absence of the institutionalized precedent within the basic unit *TILL* and a low frequency of the unit *UNTIL* in general. The last factor is explained by the synonymic nature of the meanings, which were represented by *TILL* and *TO*, as the latter had been functioning in the language much longer.

The fact that the development of the lexical unit *UNTIL* correlates with the evolution and transpositional processes of its basic component *TILL* is also supported by a dramatic growth in the frequency of both units functioning as conjunctions in EModE. Moreover, the frequency of the conjunction *UNTIL* (see 61) is doubled in comparison to the preposition *UNTIL* (see 62):

(61) *... they durst not be bold to take acquayntance of him vntyl they were farther instructed of the truth,* (HCET: Harman, T.: A Caveat or Warening for Commen Cursetors Vulgarely Called Vagabones: 52)

(62) S. Iohnes *stoode in this state, vntill those heuie tymes, and that greuous change that chance.* (HCET: Ascham, R.: The Scholemaster: 427)

In EModE, the construction *UNTIL + THAT* was grammaticalized and the unit *UNTIL* has undergone functional transposition. Therefore, the growth of the conjunction *UNTIL* occurred due to the cognitive processes which were predominant in that time society. It should be mentioned that the conjunction *UNTIL* doubled its frequency in comparison to the previous stage, as well as in comparison to its initial category of the preposition. The transposed category of the conjunction started prevailing over the initial category of the preposition. This tendency was preserved in the second part of the EModE period, when about two thirds of all examples of *UNTIL* were conjunctions (see 63), and only one third were prepositions (see 64).

(63) *… we vsed them verie kindly vntill they went on shore,* (HCET: Coverte, R.: A Trve and Almost Incredible Report of an Englishman: 82)

(64) *Mr Edmondes. Vntill this very day wee haue not heard one worde of yo^w since your departure,* (HCET: Cecil, R.: Letters (to Sir Thomas Edmondes): 3)

The diachronic corpus analysis reveals that the beginning of the LModE period (1710–1780) is characterized by a significant growth in the number of lexical units *UNTIL* and a gradual increase in the number of conjunctions compared to the number of prepositions. The results of the diachronic corpus analysis of the modern English texts are illustrated in detail in Table 6.

Table 6: Correlation of *UNTIL* as the preposition and the conjunction in Modern English

PoS	1500–1570	1570–1640	1640–1710	1710–1780	1780–1850	1850–1920	1920–1990	1990–2020
Preposition	31.4%	31%	36.8%	34.1%	29.7%	25.2%	15.1%	16.5%
Conjunction	68.6%	69%	63.2%	65.9%	70.3%	74.8%	84.9%	83.5%

In EModE, there was a change in tendencies concerning the development of the unit *UNTIL*, which has led to a decrease in the frequency of the initial category of the preposition in comparison to the transposed category of conjunction. Over time, this tendency has not only been fixed in the language but has been enhanced, taking into account the data of the last two periods. Analyzing the development of the lexical unit *UNTIL* from the very beginning, it is worth noting that the tendencies which are observed during the last stages of the English language have resulted from the gradual evolution of the preposition *TILL* and the transposed conjunction *UNTIL* (see Graph 2).
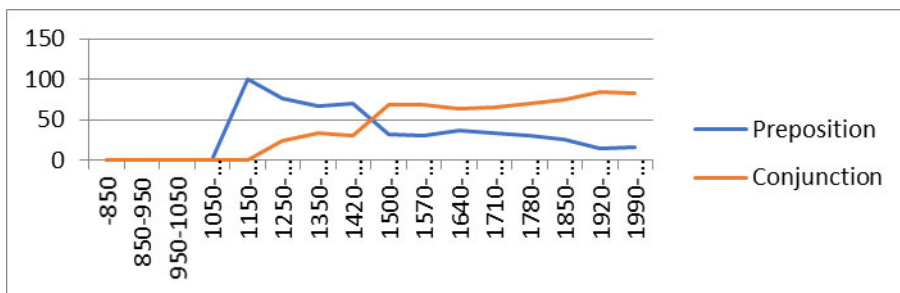
Graph 2: Functional transposition of *UNTIL* in the English language

The x-axis indicates the time spans of the English language since 850 up to 2020 and the y-axis represents the percentage (from 0% to 100% max) of each category during a given time span in history. The time spans differ in duration (see Table 1). However, it cannot be seen on the graph. The lexical unit *UNTIL* was formed as the preposition in early ME and was almost immediately transposed into the conjunction following the pattern of its basic constituent *TILL*. Nevertheless, if the functional transposition of the preposition *TILL* into the conjunction lasted about two stages (1050–1250), the process of actualization of the transposed conjunction *UNTIL* managed to occur within one stage (1150–1250). It is substantiated by the fact that the units *TILL* and *UNTIL* were, in fact, synonyms, so after the pattern of functional transposition was applied to the preposition *TILL*, it was easier for the speakers to instigate the process of functional transposition in the case of *UNTIL*. The process of functional transposition of the preposition *UNTIL* into the category of adverb was not initiated, taking into account the experience of a transpositional pattern for *TILL*, when the use of the adverb *TILL* was sporadic and could rather be described as an exception and its functional transposition into the category of adverb has not been actualized.

The diachronic corpus analysis emphasizes two crucial stages, which designated further development of *UNTIL*. The first stage is the early ME period when functional transposition of the preposition into the conjunction was actualized. The second stage is the beginning of the EModE period when the transposed category of the conjunction doubled its frequency and finally stabilized the correlation with the initial category of the preposition. However, the conjunction *UNTIL* was gradually increasing its presence in the language. These tendencies and correlations are generally observed in PDE.

5. Conclusions

The research shows that despite their synonymic nature and overlapping within the same grammatical categories of preposition and conjunction in modern English, each lexical unit is characterized by its peculiar developmental path. The lexical unit *TILL* came into Old English (West Germanic) from Old Norse (North Germanic) and was functioning as a preposition throughout the Old English period. During this period, functional transposition of the preposition *TILL* did not commence, because the unit was actively struggling for its place with the Old English preposition *TO*, whose functions it was trying to substitute. In early Middle English, the preposition *TILL* started its functional transposition into the conjunction and later into the adverb. If transposition into the conjunction was well-grounded as the speakers were cognitively ready to perceive the use of the preposition *TILL* without the prepositional complement, functional transposition into the adverb failed. *TILL* was functioning as the adverb for about 4-5 centuries. However, it could not actualize in the language and completely disappeared at the end of the Early Modern English period. In parallel with this process, *TILL* successfully represented the transposed category of the conjunction, which, in Early Modern English, superseded the initial category of the preposition. Such correlation between the initial and transposed categories is preserved now, but the tendency, which is observed in Present-Day English, testifies that the frequency of the conjunction *TILL* is decreasing in comparison to the preposition.

The origin of the lexical unit *UNTIL* is closely connected with the preposition *TILL*, which was used as a fundamental constituent for *UNTIL*. Being the principal constituent, the preposition *TILL* determined the further use of *UNTIL* as the preposition which appeared at the first stage of Middle English. Functional transposition of the preposition *UNTIL* started at the next stage and the conjunction *UNTIL* was successfully actualized in the language. The fact that functional transposition of *UNTIL* commenced after that of *TILL* influenced the general tranpositional frame of *UNTIL*. First of all, following the pattern of *TILL*, the institutionalization of the conjunction *UNTIL* was easier and faster; secondly, observing the unproductive experience of *TILL* as the adverb, the functional transposition of the preposition *UNTIL* did not even start; thirdly, despite being synonyms and representatives of the same categories with *TILL*, the developmental path of *UNTIL* is different. The overall tendency, which has been observed since the transposition of *UNTIL* into a conjunction, is that their correlation is constantly changing in favor of the transposed category.

The case of functional transposition of *TILL* and *UNTIL* is unique in the English language because it is observed between the categories of the preposition and the conjunction, whereas the absolute majority of transpositional

processes take place between the categories of the preposition and the adverb.

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