

Constructional networks and the development of benefactive ditransitives in English

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In this paper, we address the question of how to model syntactic alternations in Diachronic Construction Grammar terms. We argue that positing horizontal links between constructions in addition to vertical ones is particularly beneficial in accounting for change. Our case study is the emergence of the English “benefactive alternation”, with focus on its relation to the more pervasive and more thoroughly studied “dative alternation”. Based on a quantitative investigation of ditransitive benefactive verbs in *Early English Books Online* (EEBO), we locate the emergence of the benefactive alternation in Early Modern English, later than the dative alternation, which arose in Middle English. We conclude that the benefactive alternation can be modelled as complex networks featuring both horizontal and vertical links on various levels of schematicity.

Keywords: ditransitives, benefactives, syntactic alternations, constructional networks, allostructions, horizontal links, Early Modern English

1. Introduction

One of the fundamental principles of a “construction-based theory” is “the idea that the network of constructions captures our grammatical knowledge *in toto*” (Goldberg, 2006, p. 18; original emphasis). The hypothesis that language is organised in a network of form-meaning pairings is broadly accepted within the Construction Grammar community. However, the precise nature of constructional networks and the connections between constructions is still subject to debate (Hilpert, 2018). For example, Van de Velde (2014), Diessel (2015), and Traugott (2018) suggest that besides taxonomic, vertical links such as are typical of Goldberg’s work, networks also feature horizontal relations. These may hold both between constructions with the same form but different (even if related) meanings, and between structurally different elements which fulfil the same function

“allostructions”, cf. e.g. Perek, 2015). For horizontal relations to hold between formally distinct constructions, it is necessary that they show a certain extent of semantic overlap, although the overlap may vary in strength (Van de Velde, 2014, p. 172). The proposal of adding horizontal to vertical connections has important repercussions for investigations into the diachrony of constructions and constructional networks. Like vertical links, horizontal ones may newly emerge or be lost over time and may affect the properties of the patterns involved. Assuming that Diachronic Construction Grammar offers a framework for accounting for changes in individual micro-constructions as well as in abstract schemas, we ask what value horizontal constructional links add to vertical ones in modelling the diachronic development of constructional networks. In doing so, we contribute to answering the editors’ question 3: “What kinds of connections exist between the nodes in the network?” and question 5: “How can the reconfiguration of node-external linking be modelled?”

We address these questions by looking at a to date largely ignored sub-part of the history of ditransitives in English, namely the benefactive alternation. Ditransitives express a basic sense of “successful transfer” and prototypically involve three participants, an agent, a theme or patient, and a recipient-like entity. Verbs that occur in ditransitive frames are accordingly also known as “three-place verbs”. Most importantly for our purposes, ditransitives constitute a prime example of syntactic alternations, as most ditransitive verbs are able to appear in two different patterns. This phenomenon is well known as the “dative alternation” and is exemplified in (1). While (1a) illustrates what is commonly known as the “double object construction” (DOC), (1b) is a prepositional pattern involving “to” (*to*-POC):

- (1) a. John *gave* **Mary** a book.
 b. John *gave* a book **to** *Mary*.¹

The English dative alternation and the verbs instantiating the DOC and *to*-POC constructions have come to constitute “a popular test case for theories of argument structure and the syntax-semantics interface” (Coleman & De Clerck, 2011, p. 186). They also play an important role in many constructionist accounts and have been researched extensively from both a synchronic and a diachronic perspective (cf. e.g. Goldberg, 1995, 2006; McFadden, 2002; Mukherjee, 2005; De Cuypere, 2010, 2015a, 2015b; Perek, 2012, 2015; Wolk et al., 2013; Zehentner, 2018, 2019).

1. We adopt the following formal conventions for examples: recipients (or recipient-like) arguments are marked in bold, while themes are underlined, and verbs are given in italics. The sources of the examples (various corpora and previous literature) are indicated; if no source is provided, the example was invented by the authors.

The goal of this paper is to focus on the development of one particular sub-set of ditransitive verbs and the patterns available to them, a topic that has so far not been addressed in much detail. This group of ditransitive verbs is typically referred to as “benefactives” (cf. Kittilä, 2005; Theijssen et al., 2010) and most prominently includes verbs of creation, preparation or obtainment, such as “bake”, “build” or “buy”. Expressing a sense of intended reception, they are evidently closely connected to “regular” ditransitive verbs denoting successful transfer (e.g. “give”, “send”). However, the two groups differ with regard to a few crucial issues. First, while benefactive verbs can be used in the DOC just like basic giving-verbs (2a), in Present Day English (PDE) they have a different prepositional paraphrase: benefactive DOCs alternate with a *for*-pattern (2b) rather than a *to*-POC pattern. Although this association is to some extent fuzzy – with e.g. verbs of performance like “sing” participating in both alternations (3) – it appears to be relatively robust as a phenomenon separate from the *give*-pattern in PDE.²

- (2) a. John *baked/bought* Mary a cake.
 b. John *baked/bought* a cake *for* Mary.
- (3) a. you *sang* me a song in the language of your village (COCA; 2015)
 b. She *sang* a song *to* him then and put a kiss on his forehead (COCA; 2012)
 c. If Paul, like, looked nice or *sang* a song *for* me or something like that (COCA; 2013)

Second, the two alternations differ in terms of the relative chronology of their emergence, as is discussed more fully in Subsection 3.2. Alternations of DOC with prepositions such as “for” (“benefactive alternation”) and “to” (“dative alternation”) were absent from Old English, and the standard option for ditransitive verbs in this period was the DOC. The dative alternation with *to*-POC fully developed only in Middle English (McFadden, 2002; Zehentner, 2018, 2019). As for the benefactive alternation with *for*-POC, it did not emerge until the Early Modern English (EModE) period.³ The precise history of this phenomenon is, however, as yet severely understudied.

2. The patterns typically show subtle semantic differences. For example, (3b) implicates that the recipient is physically close to the performer or co-present in some way, e.g. via media, whereas (3c) does not have the same connotation. – It is possible to sing a song FOR someone who is not present, but not TO someone, except e.g. on the phone.

3. Periodisation is a matter of debate, but here we take the traditional position that the periods in the history of English were approximately as follows: Old English 650–1100, Middle English 1100–1500, Early Modern English 1500–1700, Late Modern English 1700–1970, and Present Day English 1970–present.

In order to provide a more comprehensive picture of how the English benefactive alternation came into being, we look at a large range of verbs occurring in either the DOC or a prepositional pattern in the corpus of *Early English Books Online* (EEBO; 1490–1700), supplemented by data from the *Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME; 1500–1720). Based on this quantitative investigation, we sketch the network of ditransitive verbs between Middle and Present Day English, putting special focus on the interaction and potential horizontal links between benefactive and ditransitive constructions at various levels of abstraction. We discuss changes in the network(s) of ditransitives/benefactives over time, in particular the split between the dative and the benefactive alternation after Middle English, i.e. the crystallisation of “for” as the prototypical prepositional variant with benefactive verbs. We comment on the puzzle how and why – just like in the case of the dative alternation – the nominal and prepositional constructions with benefactive verbs have entered a state of steady co-existence over time, with their frequency distribution remaining remarkably stable throughout the centuries. Finally, we suggest that emerging horizontal links can provide an explanation for such phenomena. The study presented here is, however, by no means exhaustive and represents only an initial step in accounting for the history of the benefactive alternation in English.

The structure of the paper is as follows. Section 2 introduces the theoretical background relevant to the project, with particular attention to two constructional network models of syntax: a “vertical” model (2.1), and a “horizontal” one (2.2). Section 3 provides further background information on the dative and benefactive alternation as analysed in Construction Grammar accounts, first in PDE (3.1) and then in early stages of the rise of the benefactive alternation (3.2). In Section 4, we outline the data and methodology used in the corpus study on the benefactive alternation in the history of English. Section 5 presents the main findings and Section 6 discusses them in light of the theoretical issues raised earlier, focussing on the question of how the history of the benefactive alternation can be modelled as a changing network of constructions. Finally, Section 7 concludes the main arguments.

2. Theoretical background

As is well known, one of the basic principles of Construction Grammar approaches is that they take language to consist of “a **structured** inventory of conventional linguistic units” (Langacker, 2008, p. 222; original emphasis), which are form-meaning pairings that make up a speaker’s linguistic knowledge. They are organised in a network-like structure and are linked by different types of relations

(cf. e.g. Goldberg, 1995, pp. 74–84; see Section 2.1). These are usually modelled as vertical links, which account for taxonomic relationships. Some researchers also posit horizontal links, which on the one hand account for “polysemy” (Section 2.1), and on the other hand can account for syntactic alternation relationships between so-called “allostructions” (Section 2.2).

2.1 A constructional taxonomic model

Vertical links hold between constructions on different levels of schematicity, which are organised in a network of “inheritance relations”. This means that lower-level patterns get their specific features from the higher-level constructions which dominate them. The structure of the more substantive daughter construction is thus “sanctioned” by the more general schema (cf. Langacker, 1987).

Croft (2003) focuses on connections between constructions on a cline from highly general and under-specified schemas to entirely substantive patterns.⁴ For example, a lexically fully filled, verb-specific and semantically not completely compositional construction like “She gave him a kick” at the very bottom of the hierarchy is vertically linked to the most abstract schema of the DOC (“Subj Verb Obj1 Obj2”|“X causes Y to receive Z”) at the top (Goldberg, 2006, p. 98). In between the highest-level schema and the lowest-level instantiation, constructions at several levels of abstraction may be present. In the case of “gave him a kick”, a verb-specific but otherwise underspecified mid-range construction “Subj give Obj1 Obj2” as well as a verb-class specific pairing of “Subj transfer-verb Obj1 Obj2” can be posited. Importantly, these links likewise constitute inheritance relations, e.g. in this example, the abstract DOC specifies the word order in the more concrete sub-constructions.

The vertical links network proposed by Croft does not only capture differing degrees of schematicity on the formal side of the construction but is also useful in modelling constructions at different levels of semantic specificity. The abstract DOC schema has a comparatively underspecified meaning of ‘transfer’, but links to a number of lower-level, verb class-specific sub-constructions which instantiate senses like ‘actual transfer’, ‘intended transfer’ or ‘blocked transfer’. Each of these may hierarchically connect to sub-sub-constructions associated with verb sub-classes or individual verbs. ‘Blocked transfer’, for instance, may relate to both a construction expressing ‘denying’ and one denoting ‘refusing’. While the more

4. There is a range of terms used for the constructions at different levels of abstractness – most commonly, a distinction is made between “macro-schemas”, “schemas”, “sub-schemas” and “micro-constructions” as the very lowest, most substantive part of the network (see also Traugott, 2018, p. 19).

abstract constructions only specify the common denominators of the subsidiary, lower-level patterns, the latter delimit the range of verbs to those compatible with the meaning of the sub-construction. They impose certain semantic constraints on the verb slot (cf. Croft, 2003, pp. 56–57). This model differs from Goldberg’s (1995) account, which views the DOC as a ‘polysemous’ construction in which the different senses cluster around a prototype meaning of ‘transfer’ without a clear hierarchical structure. In this paper, we follow Croft (2003) rather than Goldberg (1995) and refrain from referring to ‘constructional polysemy’.

We furthermore argue that these sub-constructions – in addition to being connected via their ‘mother node’ – may also be directly related to each other, drawing on Van de Velde’s (2014), Diessel’s (2015) and others’ proposals that there may be ‘horizontal’ as well as ‘vertical’ links between constructions at the same level of schematicity. Vertical links are furthermore inadequate in accounting for the relations between formally different but semantically overlapping constructions, typically referred to as syntactic alternations. These can be captured by a specific type of horizontal links, namely ‘constructional links’.

2.2 Accounting for constructional alternations

In general, alternation relationships have not received much attention in the constructionist literature until relatively recently. Although Goldberg (1995, p. 91) acknowledges that there is an overlap in meaning between various argument structure constructions, such as ditransitive, caused-motion, and resultative, and views the DOC and the *to*-POC as related by S(ynonymy)-links, she considers them to be represented almost entirely independently of each other. Rather than conceding a central role to alternations, the paraphrase relationship between such patterns is mostly downplayed (cf. Goldberg, 2002, p. 329). This approach accordingly emphasises and privileges ‘vertical’ relations between a construction and its instantiations. Occurrences of different verbs in the same construction (e.g. the DOC) are seen as more alike than instances of the same verb in different syntactic constructions (such as the DOC and *to*-POC).

Critiques of the disregard for systematic, regular correspondences between formally different variants are found in a range of constructionist and Construction Grammar-sympathetic works, where the aim of capturing linguistic knowledge in its entirety is extended to alternations as part of the linguistic system (Kay & Fillmore, 1999, p. 1). Among proposals that stress the role of paraphrase relationships are Cappelle (2006) and Perek (2012, 2015). Cappelle (2006, p. 13) argues that approaching alternation phenomena “without there being a level of representation at which the two versions are perceived to be semantically identical lacks psychological plausibility”. In his model, syntactic variants constitute ‘allostructions’ which are

linked to a partly underspecified, more abstract construction (Cappelle, 2006, p. 18). While this abstract schema, also called *constructeme*⁵, only encodes those elements that are shared by both constructional variants, *allostructions* themselves may include further details as to how they differ from one another (Perek, 2015, p. 153).

Perek applies this *allostruction* model to the English dative alternation and proposes a schematic construction with a relatively broad meaning of *S_i causes Y to have Z'* linked to the two *allostructions* DOC and *to* POC (2015, p. 156). Even though these variants are near-synonymous and share a number of features (such as the presence of two object arguments), they nevertheless differ in various construction-specific features which are not part of the abstract schema but are only encoded for the individual patterns. For example, it is well known that the variants show distinct preferences in terms of object ordering: while 'recipient-theme' order is preferred with the DOC, the prepositional pattern is typically preferred with 'theme-recipient' order. These biases correspond to or reflect discourse-pragmatic/information structure differences. Factors such as pronominality, givenness, discourse accessibility or length of the objects affect the choice of variant (Bresnan & Ford, 2010; De Cuypere, 2015a, p. 227; Theijssen et al., 2010; Wolk et al., 2013; *inter alia*). To illustrate, instances featuring a pronominal recipient and an NP-theme are more likely to be expressed as a DOC, as in (4a), whereas combinations of a pronominal theme and an NP-recipient will typically be found in a *to*-POC (4b).

- (4) a. John gave her a book.
 b. John gave it to the woman.

The benefits of the '*allostructions*' model are that such construction-specific constraints can easily be incorporated in it. At the same time, it allows us to capture features that are common to both variants. Furthermore, it is more psychologically plausible than a model that largely views the constructions in isolation, because it more adequately takes into account evidence indicating that speakers do indeed generalise over formally different patterns (cf. e.g. the results gained from a sorting task experiment in Perek, 2012, 2015).

In a different proposal regarding alternation-type relations, Van de Velde (2014) seeks to account for such phenomena in terms of a model of horizontal relations. Instead of being vertically linked to a higher-level abstraction, the alternating constructions are here connected by horizontal links, which hold between constructions at the same level of schematicity (see also Diessel, 2015; Traugott,

5. The definition of the term 'constructeme' in Perek (2015) and others after him – including this paper – differs from the way it was first used in Herbst and Uhrig (2009), who define it as "the set of all valency constructions that share the same participant structures".

2016, 2018). Although it is implicitly or explicitly mentioned in a number of other accounts, the notion of horizontal relations has, however, not been developed in full detail until very recently.

The present paper combines allostructional and horizontal models. Specifically, we assume that while horizontal links may hold between various types of constructions, they importantly also connect alternating patterns, i.e. ‘allostructions’, which additionally may vertically connect to a constructeme. Drawing on Van de Velde (2014) and Zehentner (2019), among others, we also follow up on the idea that horizontal links play an important part in the historical development of constructions. For example, if the horizontal association between two patterns becomes increasingly strong, this can lead over time to the establishment of a higher-order abstraction, and can thus also account for the retention of both patterns instead of the loss of one or the other. Such stable constructional co-existence can most prominently be seen in the dative alternation. Although a similar scenario presumably holds for the benefactive alternation, this has not been explored in detail so far and has only been addressed on the basis of empirical data to a very limited extent (cf. e.g. Zehentner, 2019 for a brief discussion of benefactives in Middle English). In particular, investigations of post-Middle English texts are still lacking entirely. We aim to remedy this situation and will argue for a complex and intricately structured multi-level network of constructions in which formally different but semantically overlapping patterns are independently stored alongside each other. They are not simply represented in isolation from each other but are connected via (strongly entrenched) horizontal links as well as by an underspecified and highly schematic constructeme.

3. Ditransitives, benefactives, and the benefactive alternation

In this section, we present some main points about ditransitive benefactives and the *for*-alternation in PDE (3.1), and then briefly outline the situation in early English before the alternation came into being (3.2).

3.1 Benefactives in Present Day English

The semantics of the PDE double object construction have been subject to much discussion in both non-constructionist and constructionist research. In Goldberg’s (1995) seminal constructionist treatment of the pattern, its central and most prototypical sense is stated to be one of ‘an agent volitionally and successfully causes a willing, animate recipient to receive an object’. This sense is most clearly and most frequently expressed by *give* and other, semantically similar verbs, including

verbs of ballistic motion (*throw, kick*) and verbs of bringing and sending (*bring, send*). Furthermore, verbs of abstract transfer (*pay a visit, give a kiss*) and verbs of communication (*tell, show*) are often found in the construction. Additional sub-senses listed by Goldberg (1995, p. 75; 2002, p. 333) on the basis of previous work on ditransitives such as Green (1974), Gropen et al. (1989), Pinker (1989), and Levin (1993) include 'signature transfer' (*leave, promise, offer*), 'enabled transfer' (*allow, permit*), as well as 'blocked transfer' (*refuse, deny*).

Most of the uses constitute metaphorical extensions of the basic sense of 'transfer': for example, *John told Mary the news* is an instance of the 'conduit metaphor', which understands communicated messages as travelling towards and being 'received' by the listener (Reddy, 1979). The specific meaning relations which hold between the various sub-senses of the DOC are discussed in detail in Coleman and De Clerck (2008), building on Geeraerts' (1998) analysis of the Dutch DOC. In the present paper, the precise semantics of the DOC and the verb classes found in it are not dealt with at greater length, except for the benefactive. As mentioned before, we take it as a given that there are sub-categories of the DOC and that all these sub-senses are represented by lower-level, verb-class specific constructions, which are vertically linked to a highly abstract, under-specified DOC schema (cf. Croft, 2003). In addition, we assume that these individual sub-constructions are horizontally linked to each other, meaning that a sub-construction of 'actual transfer' (instantiated e.g. by the verb *give*) has a horizontal connection to a sub-construction of 'blocked transfer' (instantiated e.g. by *refuse*). Both of these inherit from a more general 'double object construction', which is not specified for verb class and accordingly has a relatively open (transfer-related) meaning.

The main focus of the paper is on the particular sub-construction linked to the DOC that expresses a sense of 'intended, beneficial transfer', and is instantiated by verbs of creating, obtaining, or preparing (*bake, build, cook, get, knit, make, sew, etc.*).⁶ This is illustrated in (5), as well as (2) above:

- (5) a. John cooked Mary dinner.
 b. John cooked dinner for Mary.

Although less prototypical than verbs of giving, this class of benefactive verbs still seems to play a central role in the semantic network of the DOC construction – this is also indicated by the fact that several verbs of creation and obtainment, such as *buy* or *earn*, show up as strongly associated with the DOC in Stefanowitsch and Gries' collexeme analysis of the construction (2003, p. 229).

6. Vázquez-González and Barðdal (Forthcoming, p. 27) consider the concept of creation to be source (*urheimat*) of beneficiaries and assign it a central role among ditransitives in Proto-Germanic.

Importantly, the benefaction events denoted by the DOC in standard PDE are restricted to recipient-benefaction. That is, the PDE benefactive DOC cannot be used to express events in which a participant benefits from an action without receiving anything (Van Valin & La Polla, 1997; Kittilä, 2005; cf. also Coleman, 2010a, 2010b). Rather, an action is carried out instead of the beneficiary, i.e. “someone is substituting for the beneficiary as the agent of the profiled event” (Kittilä, 2005, p. 273). Such events are accordingly typically referred to as ‘substitutive’ or ‘deputative’ benefaction (as well as ‘*take, give*’ or ‘*gain*’ benefaction, cf. also Newman, 1996, p. 220). We will refer to substitutive benefaction in this paper, although this term is not ideal: if I open the door for someone, this may be instead of, or substituting for the person, or it may be for their benefit in general (e.g. to indicate politeness). Examples for substitutive benefaction in standard PDE are given in (6)–(8). In these sentences, the agent performs an action on behalf of another participant; in contrast to cases like *Mary baked John a cake*, there is no (intended) transfer of an item from the agent to the recipient.

- (6) a. *Can you *hold me the door*, please.
 b. Can you *hold the door for me*, please.
- (7) a. *Sue *fixed Bill the radiator*.
 b. Sue *fixed the radiator for Bill*. (Coleman, 2010b, p. 225)
- (8) a. *The teacher *parked me the car*.
 b. The teacher *parked the car for me*. (Kittilä, 2005, p. 273)

The DOC uses in ((6)–(8, a)) are rare in PDE; instead, events of this type are most commonly encoded by a *for*-POC ((6)–(8, b)). This ‘intended reception constraint’ is generally quite robust in standard PDE (Coleman, 2010a, p. 194; also Goldberg, 2002; Nisbet, 2005). However, it is to some extent fuzzy, since “whether a given event can be construed as involving intended causation of reception is a matter of degree rather than kind” (Coleman, 2010a, p. 195). This is shown in Allerton (1978, p. 25), who finds that there is a cline in speakers’ acceptance of DOC uses of substitutive benefaction, ranging from higher acceptability scores for instances like *Could you iron me these shirts* to relatively low scores for *Open me the door* (cf. also Fellbaum, 2005 on attestations of such uses in natural language). Furthermore, the strength of the constraint varies considerably across both genres and dialects. For instance, it has been reported that substitutive benefaction DOCs are acceptable in Yorkshire English (Petyt, 1985, p. 236; referred to in Coleman, 2010b).

The synchronic variation just outlined is indicative of historical change – the DOC could readily be used to denote events of substitutive benefaction in earlier stages of English. Although already quite infrequent in Middle English, however, examples of such uses can still be found in 18th and 19th century English, as in

(9). This shows that the loss of this particular sub-sense from the DOC, and thus the establishment of the ‘intended reception constraint’, proceeded rather slowly (Zehentner, 2019; Coleman & De Clerck, 2011).

- (9) a. and the young Benedictine *holding him the torch* as he wrote
(Sterne 1767; Coleman & De Clerck, 2011, p. 196)
- b. He would expect his wife [...] to *open him the door*, to reach him a chair
(The Sporting Magazine, January 1819: 164;
Coleman & De Clerck, 2011, p. 196)

Today, benefactive verbs are typically paraphrased by a prepositional pattern involving *for*, with verbs of substitutive benefaction occurring almost exclusively in this alternative construction. The fact that they thus differ from ‘regular’ ditransitives in not alternating with a *to*-POC has led some to treat benefactives as a category entirely separate from the DOC (e.g. Kay, 1996, 2005). Although we do not follow this proposal in this paper but view the benefactive DOC as one of the various sub-constructions linked to the more general DOC schema, the presence of this second alternation relationship needs explanation.

Theijssen et al. (2010) have investigated the factors conditioning the choice of DOC over *for*-POC in varieties of English. Their study shows that in a corpus of British English (ICE-GB), the benefactive alternation is (1) generally considerably less frequent than the dative alternation, and (2) is guided by similar semantic/discourse-pragmatic factors as the dative alternation, such as animacy or pronominality, although the distinctions seem to be slightly less clear-cut in this case (Theijssen et al., 2010, p. 128). However, and interestingly, the *for*-prepositional pattern accounts for a much higher percentage of instances than the (benefactive) DOC in their dataset (about 70% *for*-POC), while the exact opposite seems to hold for the dative alternation in the 20th century (Wolk et al., 2013, p. 393 found 70% recipient DOC in ARCHER for the period 1900–1949). Since it is not entirely clear whether non-alternating verbs were excluded from Theijssen’s data, and not much detail is given on the precise procedures, this might be a methodological issue (even though, as discussed below in Section 5.2, it is confirmed by a subset of our data).

In Goldberg (1995, pp. 90–91), the *to*-POC is viewed as inheriting from a more abstract ‘caused motion’ construction, which also licenses sentences such as *John sent a letter to London*, or *John put the letter on the table*. By contrast, the *for*-pattern is analysed as a combination of the transitive construction together with the ‘benefactive adjunct construction’ (Goldberg, 2002, pp. 333–336, 344–347). Examples such as (10a), which alternates with the DOC *John sent Mary a book*, are accordingly taken to form part of a set which includes instances like (10b–c), adapted from Goldberg (2002, p. 331).

- (10) a. John *sent* a book *for* Mary.
 b. John *sent* a book *for* the library.
 c. John *sent* a book *for* his mother's sake.

On this analysis, the *for*-POC differs substantially from the *to*-paraphrase (as well as the DOC) in involving a traditional adjunct rather than an argument. This assumption is based on examples such as (11a–c). In the *for*-POC (11a), an adverb can be inserted between theme and the ‘adjunct’-recipient, while this is less acceptable in the case of the *to*-POC (11b) and ungrammatical in the DOC (11c), which both involve an ‘argument’-recipient (cf. also Nisbet, 2005). However, the issue is not discussed at great length anywhere.⁷

- (11) John *bought* a book yesterday *for* Mary.
 ?John *sent* a book yesterday *to* Mary.
 *John *bought/sent* Mary yesterday a book. (Goldberg, 2002, pp. 331, 345)

In this paper, we acknowledge the differences between the two prepositional variants, and also between their historical trajectories (see the sub-section immediately below 3.2), but at the same time view them and their historical development as related to each other.

3.2 Benefactives in Old and Middle English

Regarding the historical development of the benefactive alternation, the DOC was standard in Old English, as pointed out before and as illustrated in (12a b) (e.g. Koopman, 1990; Allen, 1995; De Cuypere, 2015a; Vázquez-González & Barðdal, forthcoming). Although prepositional patterns are attested, they were highly restricted, and it can convincingly be argued that no clear and strong association suggestive of alternation between the two constructional types held at this time.

- (12) a. *dældon* heora æhta *ealle þearfum*
 distributed their belongings all poor
 [hey] distributed their belongings [to] all the poor people’
 (c1000, coaelive, ÆLS:54.479; De Cuypere, 2015a, p. 231)
- b. *wolde hire on þære byriȝ* bur *atimbran*
 wished her in this town a chamber build
 [] wished to build itself a chamber in this town’
 (c960?, Anglo Saxon Riddles; Glossary Old English Aerobics,
 s.v. *atimbran*)

7. Note also that the strict division between adjuncts and arguments has since been challenged (cf. e.g. Hoffmann, 2007, 2011). We do not pursue this question further in this paper.

A more systematic connection between the DOC and the dative *to*-POC patterns has been shown to have emerged in Middle English (McFadden, 2002; Zehentner, 2018, 2019). In this period (approximately 1100–1500), the prepositional pattern appeared with increasingly more ditransitive verbs, including the most prototypical ditransitives, namely transfer verbs (13).





- (13) & *zeue to ioseph* [...] hap
 and give to Joseph happiness
 ‘and [you] gave [...] happiness to Joseph’
 (c1225, CMJULIA, 119.390; PPCME2)

This development took place against the background of a concomitant and general rise around this time of PP-patterns at the expense of pre-existing, more nominal construction types (e.g. Mustanoja, 1960; McFadden, 2002). Furthermore, the establishment of the dative alternation coincides with an overall move towards more analytic means of expression and other broader changes in the linguistic system, including the loss of case marking and an increasing rigidification of word order (Visser, 1963; Mitchell, 1985; Allen, 1995, 2006; De Cuypere, 2015a, 2015b). The latter development is also reflected in the ordering of objects with ditransitives. While both theme-recipient and recipient-theme patterns were still flexible in this regard in earlier times – as indicated by Examples (12a–b) above – the DOC today typically features recipient-theme order (*John gave Mary a book*).⁸ The opposite order is preferred with the *to*-POC (*John gave a book to Mary*). This change mainly took place within Middle English, or shortly after (McFadden, 2002; Zehentner, 2019).

In contrast to the dative alternation, there is no clear evidence for the emergence of the benefactive alternation in Middle English data, as verbs of creation or obtainment are found with a variety of different PP-patterns even at the end of the period (Zehentner, 2019). This is shown in the Middle English examples below, where benefactive (creation) verbs are used in DOCs (14)–(16,a) and prepositional constructions involving *to*, *for* and *on*, respectively (14)–(16,b).

- (14) a. and *bylde hem a synagogue*
 ‘...d build them a synagogue’ (c1400, CMWYCSE, 366.2483; PPCME2)
 b. *Salamon bildide a noble hous to himself*
 ‘Solomon built a noble house TO himself’
 (c1388, CMPURVEY, I, 12.477; PPCME2)

8. There is considerable variation concerning this constraint in patterns with two pronominal objects. The order in *She gave me it* is, for example, attested in some British dialects (e.g. Gerwin, 2014).

- (15) a. *icc hafe hemm wrohht tiss boc* To þe33re sawle need
 I have them worked this book to their soul's need
 have made them this book for their soul's need'
 (c1200, CMORM,DED.L143.38; PPCME2)
- b. God *hap wrou3t for him meny a faire miracle*
 God has worked for him many a fair miracle
 God has often made great miracles FOR him'
 (c1400, CMBRUT3,101.3058; PPCME2)
- (16) a. *he ous ssepþ oure corounes of blisse*
 he us shapes our crowns of bliss
 makes us our crowns of bliss'
 (1340, CMAYENBI,116.2240; PPCME2)
- b. *ðat gode imiend ðe godd hafde iscapen on ðe*
 that good memory that god has shapen on you
 that good memory that god had created ON you'
 (c1200, CMVICES1,23.252; PPCME2)

The variability illustrated in the PP-patterns here suggests that even though the *for*-POC was available for benefactive verbs, they were not categorically linked to this particular preposition, even in the final stages of Middle English. This leads us to hypothesise that the rise of the benefactive alternation, i.e. the association between benefactive DOC and *for*-POC as an independently represented link, was a later development, most likely pertaining to the Early Modern English period. As pointed out above, a further change affecting parts of the alternation is the emergence of the 'intended reception' constraint, which causes verbs of substitutive benefaction to be (largely) disallowed in the DOC.

In Section 5, we turn to modelling the development of the network of (benefactive) ditransitives, based on a quantitative investigation. Before doing so, however, we first comment on the data and methodology used for our study.

4. Data and methodology for a corpus-based study of benefactives in Early Modern English

The methodological basis of the investigation of the rise of the benefactive alternation is provided by a quantitative study of ditransitive patterns in a corpus of EMode. Although the changes are gradual and statistical rather than categorical, we nevertheless assume that this period sets the course for the present-day situation. A closer look at Late Modern English and PDE benefactives is still needed to confirm the hypothesis and yield a fuller picture.


The study draws on data from two historical corpora of English. The *Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME Release 3; Kroch, Santorini & Delfs, 2004) was used for a preliminary investigation of verb types found in benefactive patterns. This corpus consists of about 1.7 million words and includes 448 texts written between 1500 and 1720. The corpus of *Early English Books Online* (EEBO; Davies, 2017) was then employed for a more wide-ranging study of the relevant constructions. The EEBO, only recently made broadly available, is an extensive database comprising over 755 million words in more than 25,000 texts. Assembled by the Text Creation Partnership as part of the SAMUELS project, it covers the time span of 1470 to 1700, the period generally known as EMode.


In a first step, we compiled a list of benefactive verbs on the basis of three different approaches: we compared and combined the PDE verb set given in Levin (1993, p. 48) with the verbs identified as benefactives in Zehentner's (2019) dataset of Middle English ditransitives, but also conducted a pilot study on the syntactically annotated versions of the PPCEME files for instances of the preposition *for* with two objects by means of the software *CorpusSearch* (Randall, 2000). This enabled us to detect additional benefactive verbs which were not present in the Middle English data or not captured by Levin's list for Present Day English. We did not impose a frequency threshold for the individual verbs, meaning that all verbs occurring at least once in the specified pattern and expressing benefactive semantics were included. The final inventory of 215 verbs then served as the input for a more large-scale study of benefactive ditransitive patterns as attested in the EEBO, meaning that we subjected the verbs to further investigation for their occurrence in either a DOC, a *for*-POC or a *to*-POC in this larger corpus of Early Modern English. The decision to include *to*-POC uses in addition to instances of *for*-POCs was motivated by the availability of both patterns for benefactives in Middle English illustrated in Section 3.2. We deemed focussing on *for*-POCs only as too constrained and not conducive to answering the main aims of the paper: our approach allowed us to address the question how far the dative alternation and the benefactive alternation interacted at this period in time.

Due to the overall very high frequency of the relevant verbs in the EEBO corpus, the final search was restricted quite heavily a priori. Specifically, the second step involved extracting the following three specific patterns from the EEBO:

- a. DOC: verb (all forms) + pronoun + article + noun (e.g. *baked him a cake*)
- b. *for*-POC: verb (all forms) + article + noun + *for* + pronoun (e.g. *baked a cake for him*)
- c. *to*-POC: verb (all forms) + article + noun + *to* + pronoun (e.g. *baked a cake to him*).

The instances extracted were manually inspected for false positives, and irrelevant uses discarded. The main reason for proceeding in this way was the fact that, while the size of the EEBO invites quantitative studies in general, it is not parsed for syntactic information. Taking the unfiltered EEBO data as a starting point and attempting to extract all uses of the verbs in relevant patterns accordingly proved largely unfeasible.

However, there is a number of issues with the procedure adopted. First, prepositions other than *to* or *for* might have been available for these verbs in the period in question (cf. *on* in (16b) above). Even within this set, the data is skewed towards *for* at the expense of *to* since (benefactive) verbs exclusively or predominantly used with *to* were not captured. Second, the search strings employed to extract data from the EEBO introduce a further bias. This is because it has repeatedly been shown that pronominality of the objects is a decisive factor in the choice of DOC over prepositional patterns – combinations of NP-themes and pronominal recipients are typically strongly associated with the DOC but disfavour the PP-patterns. As presented below, this is also reflected in the findings. Although this issue is evidently problematic when it comes to determining the precise relationship between the DOC and the prepositional constructions, we nevertheless believe it is a valid approach in that the distribution of *for*-POC versus *to*-POC should not be affected by it, and in that it made the investigation more practicable. Also, the method still allows us to investigate which verbs are particularly drawn towards either construction. It has been found that with PDE ditransitives, individual verbs exhibit significant differences in the choice of one variant over the other. Such verb-specific biases can be detected by means of mixed-effects regression modelling (e.g. Bresnan et al., 2007; Bresnan & Ford, 2010) and also by using the tool of  'distinctive collexeme analysis' (Gries, 2014). This method “identifies lexemes that exhibit a strong preference for one member of the pair as opposed to the other, and thus makes it possible to identify subtle distributional differences between the members of such a pair” (Gries & Stefanowitsch, 2004, p. 97). For instance, Gries and Stefanowitsch (2004, pp. 106–107) find that in the case of the PDE dative alternation, verbs such as *give*, *offer*, *show*, *tell*, or *teach* most frequently select for the DOC, while the verbs most clearly associated with the *to*-POC include *bring*, *pass*, *take* as well as *pay*, *sell*, and *supply*. Following this approach, we applied the method to the EModE data; by dividing the dataset into 4 sub-periods of 50 years each and performing the same analyses for each of these, we are able to identify whether any changes in verb-specific tendencies took place within the period.

To validate and double-check our results, we finally zoomed in on a much smaller set of ten verbs which are classified as  'benefactive' verbs in Levin (1993, p. 48), namely *build*, *buy*, *design*, *find*, *get*, *make*, *obtain*, *open*, *prepare*, and *sing*. More specifically, we took a random sample of 500 tokens per verb from the EEBO

and coded the instances according to the type of construction used, filtering out the non-ditransitive occurrences and comparing them to those of DOC and prepositional patterns.

5. Findings of the corpus study

In this section, we present the main findings of the investigation in the EEBO corpus of the entire set of potentially benefactive verbs (5.1) and of the set of the ten selected verbs (5.2).

5.1 All verbs

When looking at the results of all verbs taken together, the first thing to observe is that there seems to be very little change overall within the time period in question. As can be seen in Figure 1, the DOC stably accounts for about 80 to 90 per cent of tokens in all decades, while both prepositional patterns are much less frequent.⁹ A signed-rank correlation test (Kendall's tau; cf. Hilpert & Gries, 2009) reveals that the changes in proportional frequencies over time are non-significant, with $p > 0.05$ in all cases (DOC: $\tau = 0.22$, $p = 0.16$; *for*-POC: $\tau = 0.09$, $p = 0.57$; *to*-POC: $\tau = -0.19$, $p = 0.23$).

A similar picture (not reproduced here) presents itself when only those verbs that truly alternate between DOC and *for*-POC are included, i.e. when the *to*-POC, and verbs only alternating between the DOC and this variant, are excluded from the dataset. As in the overall distribution, the fraction of the *for*-POC in this case falls from approximately 9 to about 5 per cent over the course of the period; however, the change is again not significant ($\tau = (-)0.067$, $p = 0.68$).

As already pointed out, the general predominance of the DOC can be explained at least in part by the methodological approach taken, and the results may not be entirely representative of the actual distribution when non-pronominal recipients are investigated as well. Nevertheless, the complete absence of change is remarkable here, as it indicates that the DOC and the prepositional patterns had already entered a stable relationship by the beginning of the period. This is

9. These data contrast with the figures shown in Theijssen et al.'s (2010) study of the PDE benefactive alternation, where the *for*-pattern is prevalent in a 70/30 distribution. This is likely the result of methodological differences: while the initial data extraction process was similar in both approaches, we did not exclude any instances from the dataset but took all attestations of the selected verbs in the three patterns into account. By contrast, Theijssen et al. (2010, p. 118) manually reduced their DOC data to a great extent, only retaining those instances with a clear benefactive meaning.

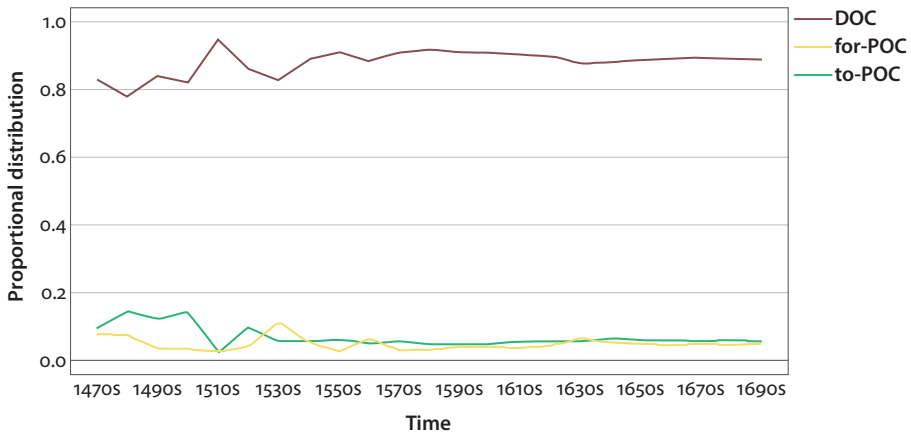


Figure 1. Proportional distribution of DOC, for-POC and to-POC in EEBO, all benefactive verbs

perfectly in line with Zehentner’s (2018, 2019) results on the dative alternation, which show that by the end of Middle English, the DOC and the *to*-POC had essentially reached the distributional state still exhibited in PDE. That is, the overall distribution of DOC versus any prepositional pattern is not subject to much change after Middle English.

Still, the findings are somewhat surprising, as we could expect at least a slight decrease in the proportion of DOCs due to the growing loss of verbs of substitutive benefaction from this pattern in favour of PP-constructions, more specifically the *for*-POC. It has to be pointed out, however, that occurrences of substitutive benefaction are generally rare (in Middle English already, and also in later stages), meaning that changes in their behaviour may not be clearly visible in the data. This assumption is also supported by a closer look at individual verbs typically considered to express substitutive ‘benefaction’. For example, the verb *open* is attested quite frequently in ditransitive structures in the corpus ($N = 469$). In a few cases, it is substitutive (17a), but in most cases, examples do not denote non-transfer benefaction. Instead, the verb is often used as a synonym for the communication verbs *show* or *tell*, as illustrated in (17b), and accordingly follows the main trend.

- (17) a. no man *wou’d open me the door* (1695; EEBO)
 b. and prepare seriously to *open me the true sentiments of your heart* (1683; EEBO)

Although the overall development of DOC vs. POC is, as shown, very stable within EModE, it is interesting to investigate the relationship between the two prepositional paraphrases in more detail. Hypothesising that the establishment of the benefactive alternation took place in the EModE period, we anticipate seeing

some change in the proportional distribution of the two prepositional variants over time. This is at least to some extent borne out by the data. As depicted in Figure 2, there is again no significant change in relative frequency of the patterns over time ($\tau = (-)0.178$, $p = 0.25$). What is nevertheless striking about the results is that the earlier decades are characterised by substantial fluctuation, with the percentage of the *for*-POC ranging from 20 to over 65 in individual decades. (This fluctuation importantly also pertains to individual verbs in the earlier periods, cf. the examples in (20)). In the 17th century data, by contrast, the distribution seems to stabilise.

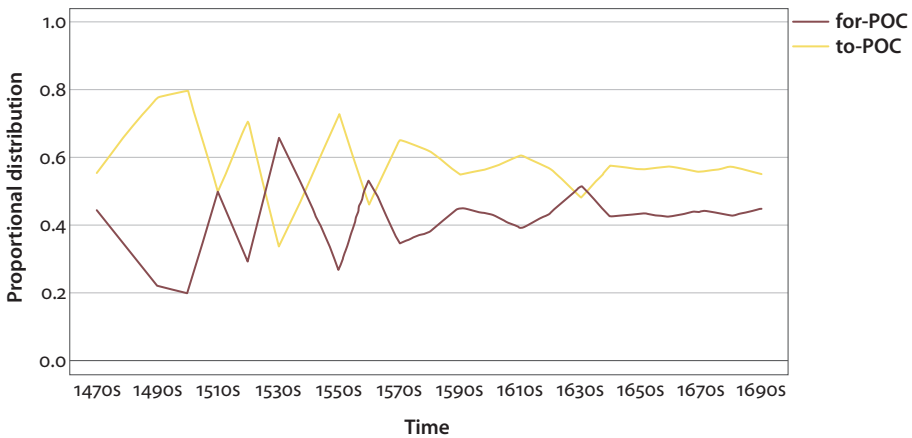


Figure 2. Proportional distribution of *for*-POC vs. *to*-POC in EEBO, all benefactive verbs

As will be discussed below, we interpret this stabilisation from the late 16th century onwards as the development of a sharper division between uses paraphrased with *to* and those alternating with a *for*-POC, and thus ultimately as the beginning of the entrenchment of the benefactive alternation as a representation stored separately from the ditransitive (dative) alternation.¹⁰ Verbs which could express both a benefactive and a regular ditransitive meaning, such as *open* in Examples ((17a) vs. 17b)), become increasingly restricted to one of these, which also impacts the choice of patterns they occur in. For example, in the case of *open*, we find that it very rarely expresses ‘showing’ or ‘telling’ in PDE anymore and is almost exclusively used in a benefactive *for* POC (rather than a DOC or *to*-POC).

Moving on to the results of distinctive collexeme analyses carried out on the verb data, some interesting insights can be gained. As explained in Section 4, the database was sub-divided into four periods of 50 years each for this purpose,

10. For discussion of identifying entrenchment in historical work, see Schmid and Mantlik (2015); furthermore Barðdal and Gildea (2015), among others, on the notion of entrenchment in Diachronic Construction Grammar.

enabling us to better detect any potential changes in verb-specific preferences over time. Due to the nature of the data extraction process, only pair-wise comparisons could be made, meaning that we investigated the choice between DOC and *for*-POC, and *for*-POC and *to*-POC, separately, instead of performing a multiple collexeme analysis of all three patterns.¹¹

The outcome of this investigation of the choice between the constructions is given in the tables in Appendix 1–2. The rightmost column indicates how strong the association of a specific verb to either the DOC or the *for*-POC is (specified in the column labelled ‘ref. occur’). Note that values of above 3 for collocational strength correspond to a high significance level ($p < 0.001$), coll.strength > 2 indicates a medium significance level ($p < 0.01$), and scores of between 2 and 1.30103 are significant at a $p < 0.05$ level (‘*if*’ means ‘finite’ and thus indicates a very small p -value). Verbs not showing a statistically significant attraction to either construction are excluded from the tables in the Appendix but are referred to in the text.

A first conspicuous finding is that the number of verb types preferred with the DOC is consistently lower than that of verb types associated with the *for*-POC. Table 1 summarises the number of verb types strongly attracted to either the DOC or the *for*-POC in the total of attested benefactive verbs: for example, in the first half of the 16th century, 5 verbs clearly correlate with DOC usage, while 7 verbs prefer the *for*-POC. The remaining verb types (out of the total of 68 verbs in this period) are neutral; they do not show any predilection for either pattern.

Table 1. Number of V types preferred with DOC and *for*-POC in 4 sub-periods of EEBO

Period	VPrefDOC	VPref <i>for</i> -POC	Total
1500–49	5	7	68
1550–99	8	27	114
1600–49	14	47	133
1650–99	17	68	151

Over time, the number of verb types connected to the *for*-POC greatly increases and expands. That is, the verb types added to the inventory of benefactives are

11. For distinctive collexeme analyses between two alternatives, either raw lists of all tokens or edited lists with frequencies can be used; analyses of more than two variants only work on the former (at least with the script provided by Gries, 2014). Since our data consist of frequency lists derived directly from EEBO, we resorted to two-way comparisons. We also ran collexeme analyses across periods within the individual constructions, as suggested by a reviewer: for reasons of space, and since these analyses did not add substantial additional insights, the results are not presented in this paper.

more often attracted to the *for*-POC rather than the DOC. It is of course clear that these results may be to some extent skewed by our study design. Still, we take this outcome to be indicative of *for* becoming more distinctly represented as an alternative (or even an exclusive) strategy for the set of benefactive verbs as a whole, even though this may not be as clearly reflected in the relative token frequency distribution of the patterns.

The data also show that while there is some stability in the verb-specific tendencies, there is significant change over time. The stability is in the presence and high collocational strength of *give*, *show*, *tell*, *send* in the column for benefactives with DOC preference, and presence of *make*, *take*, *lay*, *allege*, *prepare*, *offer* and *have* in the column for benefactives with *for*-POC preference. However, what can mainly be seen is change. Over time, benefactives with preference for DOC increasingly show ties with verbs of communication and cognition (e.g. *ask*, *prove*), transfer (*bring*) and even underspecified *do* (cf. *do someone a favour*). In general, these are rarely used with a benefactive meaning, although occasional examples can be found (also justifying their inclusion in the dataset in the first place), as in (18):

- (18) hee is discharged, and needs not *bring a bullocke for himselfe* (1627; EEBO)

While the *for*-POC is from the beginning closely associated with semantically underspecified verbs such as *make* or *take*, which frequently occur in so-called light verb constructions, their openness makes them less prototypical members of the group (cf. also Stefanowitsch, 2006, p. 65). By contrast, the *for*-POC emerges over time as strongly connected to benefactive transfer verbs such as *prepare* or *get* (also e.g. *forge* or *weave* as verbs of creation, and performance verbs like *play* and *sing*) as well as verbs often denoting substitutive benefaction (e.g. *bear*, *die*). Examples of such uses are given in (19a–d). These tendencies only seem to strengthen between the first sub-period and the last period.

- (19) a. can god *prepare a table for* vs in the Wildernesse? (1619; EEBO)
 b. matrons were appointed to *weave a garment for the goddess* (1697; EEBO)
 c. as to *sing a requiem for the dead* (1661; EEBO)
 d. though thou shouldest every day *die a death for him* (1609; EEBO)

Interestingly, the one verb that initially was preferred with DOC and later came to be associated with *for*-POC is *get*, a verb of (benefactive) transfer. We again view this as support for the assumption that the *for*-POC emerged as a viable and strong alternative for prototypical verbs of benefactive transfer.

Turning now to the relationship between verbs with *for*-POC and *to*-POC, presented in Appendix 2, we find variation in the ratio of verb-types associated with one or the other, as shown in Table 2.

Table 2. Number of V types preferred with *for*-POC and *to*-POC in 4 sub-periods of EEBO

Period	VPref <i>for</i> -POC	VPref <i>to</i> -DOC	Total
1500–49	3	5	29
1550–99	10	8	79
1600–49	11	18	116
1650–99	40	27	136

In the earlier periods, there is a great deal of variation, with both prepositions occurring in very similar contexts (illustrated by the following instances of the verb *make*, 20a–d).¹²

- (20) this is the palays that thomas *hath made for thy brother* (1483; EEBO)
 that ther *was made to him a temple* whiche endured after (1477; EEBO)
 and *did do make for him a fayr bayne* [bath] / wherin she put these herbes
 (1477; EEBO)
 broughte the damoysele and the lityll chylde in to his hous / and *made to*
them a good fire (1474; EEBO)

By contrast, the *to*-POC in later periods is mainly associated with directional verbs (e.g. *bring*, *pull*, *reach*) and verbs which foreground the transfer event, as in (21).

- (21) a. not to bewail them, or *bring a remedy to them* (1693; EEBO)
 b. manlius torquatus, at supper, *reaching a cake to one of his guests*
 (1673; EEBO)

Verbs of preparation or obtainment (e.g. *find*, *get*, *obtain*, *procure*, *purchase*, among many others) show increasingly strong preferences for the *for*-POC. Some representative examples are provided in (22).

- (22) and we shall soone find a place for them (1604; EEBO)
because he had not obtained a peace for them (1700; EEBO)
purchased a house for himselfe and his successors (1601; EEBO)

Furthermore, the analysis shows that the fraction of verbs which are not closely associated with either one or the other pattern decreases over time. In the 16th century, about three quarters of the verb types freely alternate between the two PP-patterns, whereas in the 17th century, only half of the verbs remain highly variable.

In sum, despite certain limitations of the investigated data, a few observations can be made. Most importantly, the relationship between the DOC and the

12. These examples differ in word order and were not, in fact, part of the sample investigated – they are given to illustrate the general picture, since they feature the same verb with very similar meanings in the earliest EEBO decades.

PP-paraphrases is stable throughout the period. The crystallisation of the *for*-POC as an alternative to a specific sub-set of ditransitive verbs, however, can be located in the later stages of this period, when the variation between *for* and *to* became more restricted. In the following sub-section, we test and cross-check this claim with 10 typical benefactive verbs and their patterns of occurrence in a random sample of 500 tokens each.

5.2 Selected benefactive verbs

We start with an overview of the distribution of all ten verbs (*build, buy, design, find, get, make, obtain, open, prepare, sing*) taken together. Here, we first find that ditransitive uses of the selected verbs are comparatively rare, while transitive and/or intransitive uses abound ‘‘together’’ in Figure 3).¹³ This is relevant for our present purposes because benefactives seem to differ from ‘regular’ ditransitives in this respect. In PDE, prototypical transfer-verbs like *give* reportedly show a clear and strong correlation with ditransitive patterns at the expense of other uses, although there is of course considerable variation, and the additional patterns should not be discounted (Mukherjee, 2005; Stefanowitsch, 2006). This has also been shown to hold for earlier stages (Wolk et al., 2013). Benefactives, on the other hand, seem to be less closely associated with the members of the benefactive alternation in EMode and presumably in PDE still. Instead, they mainly show non-ditransitive uses (taking up between 80 and 100% throughout time).

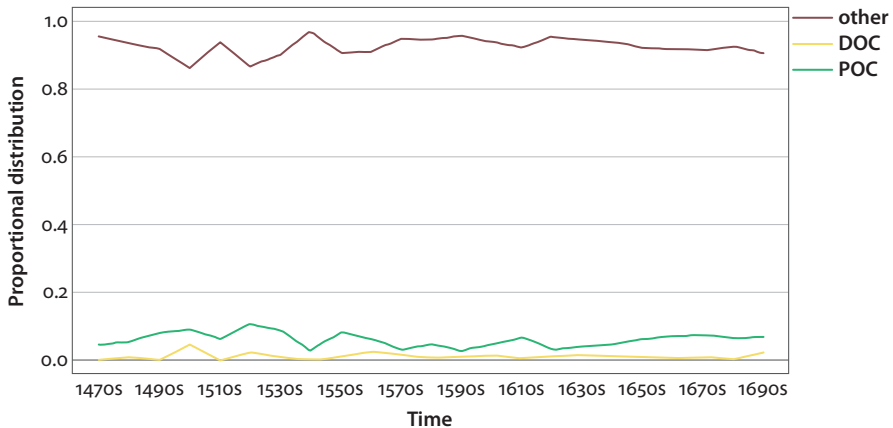


Figure 3. Proportional distribution of ditransitive and other patterns with 10 selected benefactive verbs in EEBO (*build, buy, design, find, get, make, obtain, open, prepare, sing*)

13. Changes in the distributions over time are non-significant (Kendall’s tau – other: $\tau = -0.01$, $p = 0.96$; DOC: $\tau = 0.08$, $p = 0.62$; POC: $\tau = -0.02$, $p = 0.92$).

Figure 4 elaborates on Figure 3 and zooms in on uses of benefactive verbs with two overt objects only, i.e. disregards the ‘other’ uses included above (Section 5.1). The results demonstrate that contrary to what was presented in the preceding section for the sample including all verbs (see Figure 1), PP-patterns dominate over DOC uses in this set. Any changes over time concerning this distribution are non-significant (Kendall rank correlation; $\tau = (-)0.13$, $p = 0.41$). The preference for POCs is more pronounced with some of the verbs included, most strikingly with *open*, *obtain*, *prepare*, *sing* and *make*, where the POC accounts for over 80 per cent in the entire sample. At least for the first two of these, this is expected, as these verbs are restricted to the *for*-POC in PDE. However, the bias towards prepositional constructions is found with all verbs. The smallest fraction of POCs is still more than 50 per cent. Interestingly, the divergence of these results from the broader findings above corresponds to the findings of Theijssen et al.’s (2010) study on the benefactive alternation in PDE mentioned above in Section 3.1. On the other hand, the sample of 500 examples for each of the 4 periods for the 10 verbs is very small. We conclude that with more prototypically benefactive verbs, the prepositional uses may be stronger than with verb types more peripheral to this basic sense. Furthermore, the results may reflect the fact that verbs of substitutive benefaction (represented here by *open*) are increasingly ousted from the DOC, and instead, speakers opt for near-categorical use in the *for*-POC, skewing the results in favour of the latter.

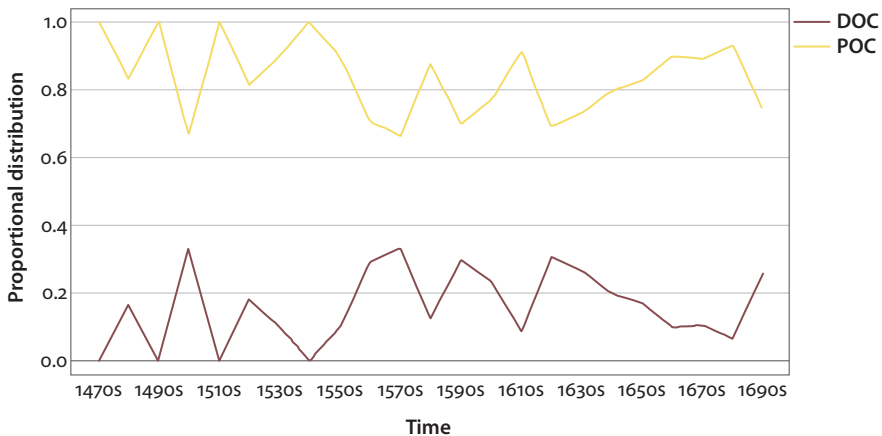


Figure 4. Proportional distribution of DOC vs. POC with 10 selected benefactive verbs in EEBO (*build*, *buy*, *design*, *find*, *get*, *make*, *obtain*, *open*, *prepare*, *sing*)

Finally, an investigation of the specific types of prepositional patterns available for the respective verbs shows that in addition to *to* and *for*, a number of other prepositions is present as well – this includes *unto* and *toward(s)* as well as *on*

and *upon*. Subsuming variants of *to* and *on* in two groups, respectively, and examining changes in their relative frequency distribution over time, *for* emerges as the clear winner (see Figure 5). This variant considerably increases over time ($\tau = 0.73$, $p < 0.001$). In the case of (*up*)*on* POCs the fluctuation seen initially quickly decreases, the overall change is only marginally significant ($\tau = -0.31$, $p = 0.057$). The *to*-POCs (and variations thereof) persist for a longer time, but their proportion similarly falls during the 17th century ($\tau = -0.41$, $p < 0.01$). These changes support the assumption that with central benefactive verbs, the *for*-POC is increasingly established as the main alternant to the DOC.

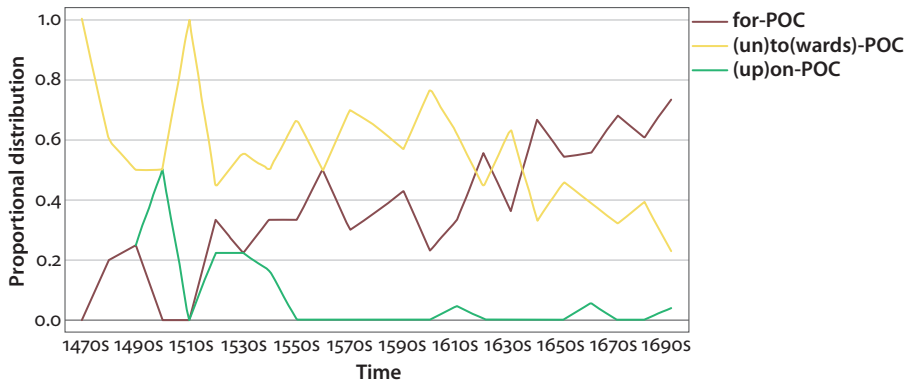


Figure 5. Proportional distribution of different PP-patterns with 10 selected benefactive verbs in EEBO

To sum up, what the findings of the quantitative study indicate, despite certain noise in the methodology, is first, that for benefactives, prepositional patterns and the DOC stably co-existed in EModE, even though the precise power relations might differ between individual verbs and sub-groups of the verb set. Specifically, DOC uses with verbs of substitutive benefaction are increasingly lost and are overtaken by prepositional uses; in general, the (prototypical) benefactive DOC seems to become less entrenched over time. Second, the major changes that take place with benefactive verbs in this period occur within the PP-paraphrases, as *to*-POC and *for*-POC initially stand in relatively free variation but increasingly come to diverge from each other. Ultimately, this leads to the situation found in PDE, where there is still some variability and fuzziness, but the *for*-POC is more systematically associated with verbs of benefactive transfer than the *to*-POC. In the following, we model these changes from a constructional network perspective, with a focus on horizontal relations between constructions on the same level of schematicity.

6. Constructional networks in the history of English

6.1 Modelling the emergence of the English benefactive alternation

We have essentially distinguished between two main stages: stage I corresponds to Middle English through to 16th century EModE, while stage II covers later EModE (17th century).

In the first stage, an abstract DOC sanctions a range of sub-constructions, including actual transfer, communication, and benefactive or intended transfer as well as more peripheral, less productive senses such as blocked transfer. This situation is illustrated in Figure 6. Importantly, the DOC construction has already narrowed considerably by late Middle English, having become more and more restricted to a basic transfer meaning. Verbs of dispossession (e.g. *steal*, *rob*) or malefaction (e.g. *cut*, *shorten*, or *break*), which could be used in Old English and continued to be used in the DOC in early Middle English, have ceased almost entirely to be used in DOC by this time. Nevertheless, the construction is still not as semantically restricted as today, since at this point, instances such as the above-mentioned *the teacher parked me the car* are still occasionally attested. DOC patterns expressing substitutive benefaction, without any transfer involved, accordingly continue to be represented and linked to the abstract DOC, even if less strongly than other verb class patterns. (The weaker links are indicated by the broken vertical line between the DOC schema and the sub-construction DOC (subst. benefaction) as well as by the broken horizontal lines between this sub-construction and the others. Likewise, the broken outline of DOC (subst. benef.) points to the weakening of the sub-construction itself). We talk about ‘weakening’ and ‘strengthening’ of both constructions and constructional links to essentially correspond to a decrease or increase in neuronal activation and cognitive entrenchment (which may be reflected in a decrease or increase in schematicity and productivity; cf. e.g. Hilpert, 2018, pp. 26, 30–31; Barðdal & Gildea, 2015).¹⁴ In our corpus data, this is manifest in a decrease or increase in type and/or token frequency.

Figure 7 depicts that, in addition to exhibiting vertical relations to its more fully specified sub-constructions, the Middle English DOC schema has already

14. The precise relation and interaction between weakening of (sub-)constructions and constructional links is subject to discussion, as pointed out by a reviewer: it can be questioned whether the weakening of a construction is necessarily accompanied by a weakening in its links to other constructions, and vice versa. In this paper, since we talk about ‘weakening’ and ‘strengthening’ to primarily consist of a decrease or increase in activation, we assume, however, that there should indeed be a connection – if a pattern is activated less and less, it will also come to be less clearly associated with other patterns, as the links are not activated as frequently either. Still, there is clearly need for further specifications here.

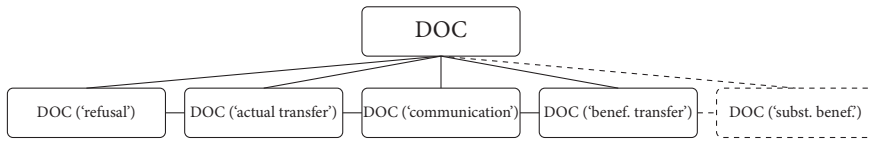


Figure 6 Network of the DOC schema at the outset of Stage I (late Middle English/ early EModE)

entered a relatively stable state of co-existence with the *to*-POC, which is itself licensed by a schema joining a prepositional structure with a meaning of ‘caused motion’.¹⁵ Not only do horizontal relations hold between the more substantive verb-class specific DOCs and their *to*-paraphrases (e.g. the prototypical, highly entrenched sub-schemas expressing ‘actual transfer’ in Figure 7), but horizontal connections have also emerged at a higher level in the network. That is, speakers at this point presumably recognise more abstract DOCs and *to*-POCs as being systematically associated, in that a range of verbs and verb classes regularly alternate between the two patterns.

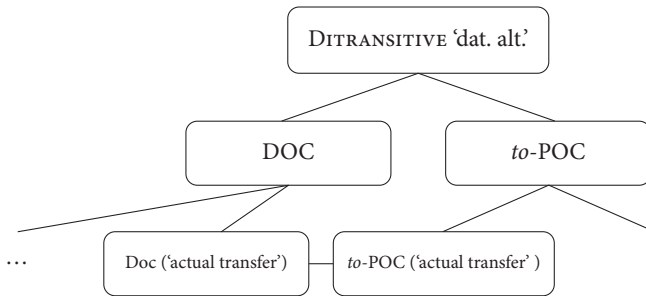


Figure 7 Network of DOC and *to*-POC allostructions at the outset of Stage I (late Middle English/ early EModE)

Following Perek’s (2012, 2015) conceptualisation of the dative alternation in PDE, we hypothesise that this has already led to the formation of a generalisation over the correspondence relationships, i.e. the constructionalisation of a highly under-specified ‘ditransitive’ or ‘dative alternation’ constructeme. The resulting network, represented in Figure 7, accordingly shows constructions of various levels of schematicity and horizontal links between them. As illustrated by ‘actual transfer’ in the figure, in this network, the *to*-POC is vertically linked to more specified sub-constructions just like the DOC.

In addition, there is a sub-schema of *to*-POCs expressing ‘benefactive transfer’. On the one hand, the verb class-specific pattern is horizontally linked to the

15. As mentioned above, this schema ultimately also sanctions instances such as *John put the book on the table* or *John loaded hay onto the wagon*.

corresponding DOC (see Figure 8). On the other hand, it also has connections to a second prepositional paraphrase involving *for*, which is likewise horizontally related to the DOC sub-construction. By contrast to the *to*-POC, which is sanctioned by a more abstract *to*-pattern (and ultimately a schema evoking a general sense of ‘caused motion’), the *for*-POC inherits from a schematic ‘benefactive adjunct’ construction. By virtue of this, it also connects to the *for*-pattern used with verbs of substitutive benefaction. This sub-schema of the PP-pattern for ‘substitutive benefaction’ connects to a sub-schema of the DOC with overlapping semantics. However, these links, as well as the DOC sub-construction ‘subst. benef. **Itself**’, are increasingly becoming weaker, possibly due to speakers adapting to the specialisation of the DOC to a basic transfer-meaning and to its very strong association to the *to*-POC (cf. Zehentner, 2018, 2019). The increasing marginalisation of both the sub-construction and the link is indicated by broken lines in the figure. Note that visual representations of this kind quickly get quite complex, and the distinction between vertical and horizontal links is difficult to uphold. Even so, the relevant point is that at this stage, no schematic pattern has yet formed over the *for*-POC and the DOC for the specific verb class of ‘benefactive transfer’. This stands in contrast to the DOC and the *to*-POC ‘ditransitive’ verbs, where such an abstraction had already constructionalised, as discussed in connection with Figure 7 and also included here.¹⁶

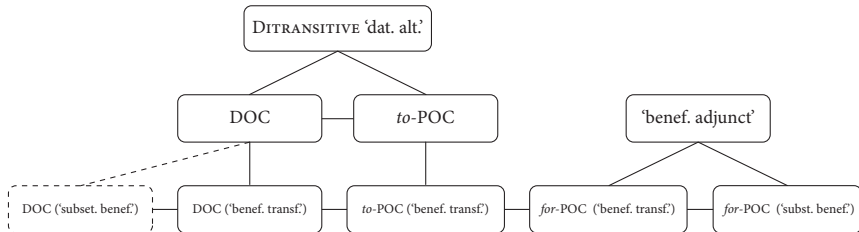


Figure 8 Network of benefactive transfer verbs (late Middle English/early EModE)

In a last and crucial step which ultimately enables stage II, the links between the benefactive transfer-DOC and the *for*-POC strengthen considerably (i.e. become more entrenched). This happens at the expense of the benefactive transfer *to*-POC: the prepositional variants compete against each other for the same function (expression with benefactive transfer verbs), but any potential benefits from being associated with the DOC (such as an incipient alternation-based productivity along the lines of Perek, 2015) are higher for the *for*-POC. The results of this development become visible in the second century covered by the data, when *for* starts to crystallise as the sole (or at least more salient and text frequent) alternant

16. For ease of reading, none of the sister DOC sub-constructions in Figure 6 are represented here.

for benefactive verbs. This constitutes the beginning of stage II and is depicted in Figure 9. Here, the *to*-sub-construction fades and the links between it and the DOC and *for*-POC, respectively, are weakened, while ties between the latter are reinforced. Eventually, the *for*-POC comes to be perceived as the main (prepositional) variant for most benefactive verbs – it comes to be more and more clearly and systematically associated with verbs expressing benefactive transfer.

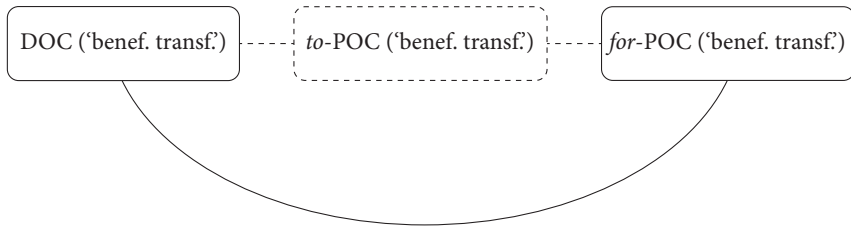


Figure 9 Network of benefactive verbs in Stage II (later Early Modern English)

This new configuration in turn gradually leads to the emergence of a more abstract 'benefactive alternation' schema, which only specifies those features shared by both the benefactive DOC and the *for*-POC. The emergent links are indicated by double arrows in Figure 10; they contrast with the normal lines on the left of the figure representing already established, resident links and constructions.

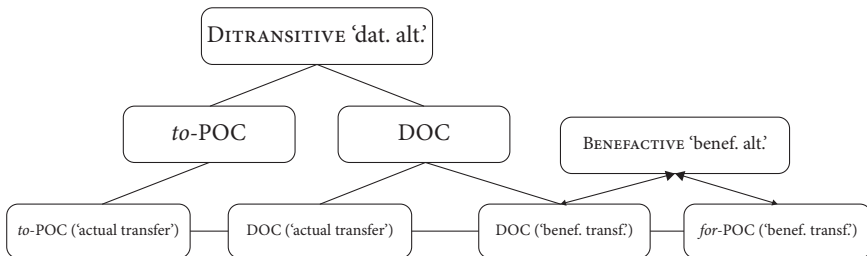


Figure 10 Network of dative alternation and benefactive alternation (later Early Modern English)

The newly **constructionalizing**, independently stored alternation construction is similar to that proposed for the dative alternation but is assumed to be located on a lower level in the network, as represented in the figure. This is motivated by the fact that the DOC involved in this alternation relationship is itself a sub-construction to the more general DOC (see Figures 6 and 8), occurring with a particular verb class. Even though the benefactive DOC is used with a range of more specific senses such as obtainment, preparation or performance, these are still less abstract than the broader verb classes subsumed by the DOC schema. It is conceivable that the new BENEFACTIVE alternation construction is connected to the even more abstract DITRANSITIVE (dative) alternation, in that the establishment of the former

may have been (to some extent) driven by analogy to the latter. More precisely, we can speculate that the presence of an abstract alternation schema for DOC and *to*-POC may cause or at least reinforce a similar alternation generalisation to emerge with benefactives.

Figure 10 represents the postulated situation at the end of Early Modern English. During Late Modern English and Present Day English, there was a further strengthening of the horizontal link between the allostructions, and consequently the further entrenchment of the ‘benefactive alternation constructeme’. Nevertheless, this schema is still less productive and entrenched than the ‘dative alternation’ one today, and there is evidence that the functional divergence exhibited by the members of the dative alternation is not as clear and systematic in this case (cf. Theijssen et al., 2010).¹⁷ More research, specifically corpus investigations as well as psycholinguistic/ experimental studies on the benefactive alternation in PDE and its similarities or differences to the dative alternation in recent times, are needed to back up these assumptions.

In the following section, we briefly return to our initial question of what the benefits of adding horizontal links to a Diachronic Construction Grammar model are, relating this to some open issues in the history of the benefactive alternation.

6.2 The value of postulating horizontal links

Traugott (2018, p. 20) states that “horizontal network relationships supplement ‘vertical’ inheritance hierarchies and give a more nuanced view of relationships among constructions than do vertical models alone”. In this paper, we suggest that adding horizontal relations to constructional networks may also have explanatory value, both on a synchronic and a diachronic level. There is tentative support for the former in that priming effects – as well as instances of analogical extension – seem to be triggered by both formal and functional overlaps between constructions. Concerning the latter, we argue that horizontal links may enable us to provide a plausible scenario for the following issues, among others:

First, the emergence and/or presence of horizontal links is taken to be a driving factor behind the constructionalization of higher-level, alternation-based generalisations such as the dative alternation or the benefactive alternation, the independent representation of which is supported by experimental data as presented in e.g. Perek (2012, 2015). Although horizontal relations do not necessarily lead to such abstractions, they may presumably emerge when associations are very strong. Becoming associated also means increased competition between the constructions. One outcome of competition is the loss of one variant (typically the

17. But see Tagliamonte (2018) for potentially contradictory results.

older one). Another outcome is for the alternation relation to become entrenched and for variation to persist. We suggest that horizontal relations may present a crucial step in the development of a co-existence, division of labour-situation, as evidenced by the two alternations under discussion.

Second, horizontal links as well as constructemes may help us to explain certain idiosyncrasies in the history of the patterns. For example, the structure of the network of benefactive verbs may account for the very drawn-out and gradual rise of the ‘tended reception constraint’ as well as its fuzzy nature in PDE. Even though the sub-sense of substitutive benefaction is mostly not used with DOC in Standard English (e.g. **open me the door*, **park me the car*), such instances are still acceptable in certain dialects, as mentioned above in Section 3.1. Rather than assume that non-standard uses like these represent historical artefacts or that speakers retain historical knowledge about these verbs, we hypothesise that their occurrences may also be motivated by their being (weakly) connected to the DOC by virtue of their strong horizontal relations to the benefactive transfer *for*-POC. The semantic overlap between these types of benefactive events – in the sense of evoking situations that are advantageous to a participant – may trigger occasional coercion effects. This idea relates to and extends Perek’s (2015) notion of ‘alternation-based productivity’ referring to “a paradigmatic analogy between an existing use of a verb in a given allostruction and a productive use of that verb in another allostruction” (Perek, 2015, p. 169; original emphasis). Encountering an instance of *open* in a *for*-pattern (e.g. in sentences such as *Can you open the door for me?*), speakers may not only recognise that these uses are related to *for*-POC patterns with verbs of benefactive transfer, but may also analogise to the alternation relation that holds with other verbs between the *for*-POC and the benefactive DOC (as alluded to above). Occasional occurrences of *open* in the DOC could accordingly be counted as evidence for both formal and functional analogical extension in language use. Evidently, this will need to be tested in future research. Nevertheless, we believe that Construction Grammar accounts in general, and Diachronic Construction Grammar accounts in particular, can profit from combining the concepts of horizontal links and allostructional models with those of taxonomic, vertical links. In general, we hope to have shown that approaching alternations and their history in terms of constructional networks can yield interesting insights.

7. Conclusion

In this paper, we have aimed to present an account of a less well-known aspect of the English dative alternation, namely the benefactive alternation. The scenario

we have suggested is both more comprehensive and more nuanced than what has been provided so far. The empirical analysis is based on findings of benefactive verbs occurring in several patterns in Early Modern English, a period which has to date not been explored in connection with the benefactive. We have investigated occurrences of such verbs in the EEBO corpus and have used the results of this study to model the history of the English benefactive alternation. We have approached the history of the phenomenon from a Construction Grammar perspective which makes use of specific predictions about the structure of the constructional networks involved, most importantly the existence of horizontal links between constructions at the same level of schematicity, in addition to vertical links connecting patterns at different levels of abstractness. Such horizontal relations hold both between formally equivalent constructions which are slightly different in meaning as well as between formally distinct yet semantically overlapping constructions (i.e. variants in syntactic alternations). We have argued that applying such an extended notion of constructional networks to diachronic investigations is beneficial and allows us to sketch historical developments in a more plausible way. Main points in our discussion have concerned the crystallisation of *for* as the standard or prototypical alternant for benefactive verbs as well as the establishment of the 'benefactive alternation' constructeme, similar to the underspecified 'benefactive alternation' schema which connects the allostructions of the DOC and *to*-pattern.

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Appendix 1. Collexemes distinguishing between the DOC and the *for*-POC in 4 sub-periods of EEBO

Period	Verbs	Pref.	Coll.str.
1500–1549	<i>give</i>	DOC	15.89
	<i>show</i>	DOC	5.02
	<i>tell</i>	DOC	3.09
	<i>send</i>	DOC	1.67
	<i>get</i>	DOC	1.3
	<i>make</i>	FOR	18.56
	<i>lay</i>	FOR	12.26
	<i>take</i>	FOR	3.37
	<i>allege</i>	FOR	3.29
	<i>prepare</i>	FOR	3.27
	<i>kill</i>	FOR	1.73
	<i>have</i>	FOR	1.52

Period	Verbs	Pref.	Coll.str.
1550–1599	<i>give</i>	DOC	58.18
	<i>show</i>	DOC	13.66
	<i>tell</i>	DOC	5.17
	<i>send</i>	DOC	3.43
	<i>offer</i>	DOC	2.11
	<i>bring</i>	DOC	1.89
	<i>do</i>	DOC	1.46
	<i>set</i>	DOC	1.39
	<i>lay</i>	FOR	37.12
	<i>take</i>	FOR	14.16
	<i>prepare</i>	FOR	13.91
	<i>have</i>	FOR	11.62
	<i>allege</i>	FOR	10.78
	<i>make</i>	FOR	8.25
	<i>find</i>	FOR	4.94
	<i>devise</i>	FOR	4.85
	<i>pay</i>	FOR	4.11
	<i>abide</i>	FOR	3.56
	<i>open</i>	FOR	3.24
	<i>use</i>	FOR	3.12

(continued)

Period	Verbs	Pref.	Coll.str.
	<i>praise</i>	FOR	2.77
	<i>search</i>	FOR	2.77
	<i>speak</i>	FOR	2.77
	<i>kill</i>	FOR	2.45
	<i>leave</i>	FOR	2.28
	<i>reserve</i>	FOR	2.01
	<i>provide</i>	FOR	1.91
	<i>frame</i>	FOR	1.83
	<i>obtain</i>	FOR	1.8
	<i>erect</i>	FOR	1.64
	<i>say</i>	FOR	1.5
	<i>call</i>	FOR	1.38
	<i>exact</i>	FOR	1.38
	<i>forge</i>	FOR	1.38
	<i>weave</i>	FOR	1.38

Period	Verbs	Pref.	Coll.str.
1600–1649	<i>give</i>	DOC	232.55
	<i>show</i>	DOC	39.24
	<i>tell</i>	DOC	20.73
	<i>send</i>	DOC	7.61
	<i>do</i>	DOC	4.95
	<i>bring</i>	DOC	4.01
	<i>allow</i>	DOC	3.99
	<i>ask</i>	DOC	3.61
	<i>offer</i>	DOC	2.35
	<i>set</i>	DOC	2.04
	<i>present</i>	DOC	1.73
	<i>owe</i>	DOC	1.7
	<i>reach</i>	DOC	1.63
	<i>prescribe</i>	DOC	1.61
	<i>prepare</i>	FOR	108.34
	<i>have</i>	FOR	70.72
	<i>lay</i>	FOR	53.24
	<i>make</i>	FOR	22.13
	<i>receive</i>	FOR	21.73
	<i>provide</i>	FOR	21.01
	<i>open</i>	FOR	15.05

Period	Verbs	Pref.	Coll.str.
	<i>take</i>	FOR	14.37
	<i>reserve</i>	FOR	12.88
	<i>keep</i>	FOR	9.43
	<i>find</i>	FOR	9.09
	<i>erect</i>	FOR	9.03
	<i>care</i>	FOR	7.73
	<i>bless</i>	FOR	7.7
	<i>obtain</i>	FOR	7
	<i>speak</i>	FOR	6.5
	<i>seek</i>	FOR	6.35
	<i>perform</i>	FOR	6.32
	<i>spin</i>	FOR	5.68
	<i>institute</i>	FOR	5.16
	<i>want</i>	FOR	5.15
	<i>pay</i>	FOR	5.06
	<i>frame</i>	FOR	4.88
	<i>devise</i>	FOR	4.47
	<i>die</i>	FOR	3.86
	<i>work</i>	FOR	3.47
	<i>order</i>	FOR	3.28
	<i>search</i>	FOR	3.28
	<i>propose</i>	FOR	3.14
	<i>play</i>	FOR	3.01
	<i>praise</i>	FOR	2.9
	<i>beat</i>	FOR	2.76
	<i>break</i>	FOR	2.61
	<i>cast</i>	FOR	2.53
	<i>use</i>	FOR	2.46
	<i>allege</i>	FOR	2.39
	<i>dig</i>	FOR	2.2
	<i>decree</i>	FOR	2.11
	<i>say</i>	FOR	2.11
	<i>purchase</i>	FOR	2.02
	<i>cut</i>	FOR	1.78
	<i>furnish</i>	FOR	1.68
	<i>conclude</i>	FOR	1.67
	<i>require</i>	FOR	1.62
	<i>kill</i>	FOR	1.58

(continued)

Period	Verbs	Pref.	Coll.str.
	<i>procure</i>	FOR	1.48
	<i>sing</i>	FOR	1.33
Period	Verbs	Pref.	Coll.str.
1650–1699	<i>give</i>	DOC	Inf
	<i>show</i>	DOC	94.45
	<i>tell</i>	DOC	64.57
	<i>bring</i>	DOC	18.04
	<i>do</i>	DOC	15.46
	<i>allow</i>	DOC	14.57
	<i>send</i>	DOC	12.64
	<i>save</i>	DOC	9.55
	<i>offer</i>	DOC	8.84
	<i>ask</i>	DOC	8.05
	<i>leave</i>	DOC	4.87
	<i>owe</i>	DOC	3.84
	<i>set</i>	DOC	3.61
	<i>present</i>	DOC	2.83
	<i>gain</i>	DOC	2.56
	<i>reach</i>	DOC	2.16
	<i>prove</i>	DOC	1.82
	<i>have</i>	FOR	Inf
	<i>prepare</i>	FOR	259.5
	<i>lay</i>	FOR	123.81
	<i>make</i>	FOR	83.23
	<i>provide</i>	FOR	58.09
	<i>take</i>	FOR	41.1
	<i>obtain</i>	FOR	34.91
	<i>open</i>	FOR	30.53
	<i>erect</i>	FOR	20.05
	<i>find</i>	FOR	19.84
	<i>receive</i>	FOR	19.44
	<i>work</i>	FOR	17.67
	<i>dig</i>	FOR	15.28
	<i>keep</i>	FOR	12.95
	<i>conceive</i>	FOR	12.92
	<i>die</i>	FOR	12.89
	<i>purchase</i>	FOR	12.38

Period	Verbs	Pref.	Coll.str.
	<i>preserve</i>	FOR	12.21
	<i>seek</i>	FOR	10.67
	<i>accept</i>	FOR	10.62
	<i>institute</i>	FOR	9.9
	<i>want</i>	FOR	9.9
	<i>reserve</i>	FOR	9.47
	<i>choose</i>	FOR	9.23
	<i>desire</i>	FOR	8.84
	<i>search</i>	FOR	8.7
	<i>bless</i>	FOR	8.11
	<i>care</i>	FOR	7.73
	<i>manage</i>	FOR	7.73
	<i>perform</i>	FOR	7.73
	<i>require</i>	FOR	7.51
	<i>break</i>	FOR	6.65
	<i>bear</i>	FOR	6.57
	<i>frame</i>	FOR	5.79
	<i>compose</i>	FOR	5.17
	<i>clear</i>	FOR	5.16
	<i>found</i>	FOR	5.16
	<i>pay</i>	FOR	5.15
	<i>praise</i>	FOR	5.14
	<i>blow</i>	FOR	4.47
	<i>imply</i>	FOR	4.02
	<i>play</i>	FOR	3.98
	<i>suffer</i>	FOR	3.95
	<i>cast</i>	FOR	3.7
	<i>devise</i>	FOR	3.67
	<i>say</i>	FOR	3.38
	<i>plead</i>	FOR	3.28
	<i>use</i>	FOR	3.16
	<i>procure</i>	FOR	3.01
	<i>draw</i>	FOR	2.99
	<i>carry</i>	FOR	2.94
	<i>secure</i>	FOR	2.79
	<i>know</i>	FOR	2.77
	<i>form</i>	FOR	2.76
	<i>get</i>	FOR	2.73

(continued)

Period	Verbs	Pref.	Coll.str.
	<i>decide</i>	FOR	2.58
	<i>exact</i>	FOR	2.58
	<i>speak</i>	FOR	2.42
	<i>fix</i>	FOR	2.34
	<i>roll</i>	FOR	2.12
	<i>conclude</i>	FOR	2.06
	<i>design</i>	FOR	2.06
	<i>blame</i>	FOR	2.04
	<i>ordain</i>	FOR	1.96
	<i>build</i>	FOR	1.83
	<i>read</i>	FOR	1.78
	<i>light</i>	FOR	1.37
	<i>appoint</i>	FOR	1.36

Appendix 2. Collexemes distinguishing between the *for*-POC and the *to*-POC in 4 sub-periods of EEBO

Period	Verbs	Pref.	Coll.str.
1500–1549	<i>make</i>	FOR	7.78
	<i>lay</i>	FOR	3.36
	<i>prepare</i>	FOR	1.39
	<i>say</i>	TO	4.91
	<i>have</i>	TO	4.58
	<i>give</i>	TO	3.95
	<i>open</i>	TO	1.35
	<i>write</i>	TO	1.35

Period	Verbs	Pref.	Coll.str.
1550–1599	<i>make</i>	FOR	11.63
	<i>lay</i>	FOR	7.92
	<i>prepare</i>	FOR	4.91
	<i>find</i>	FOR	3.96
	<i>allege</i>	FOR	3.35
	<i>provide</i>	FOR	2.23
	<i>pay</i>	FOR	2.02
	<i>devise</i>	FOR	1.48

Period	Verbs	Pref.	Coll.str.
	<i>kill</i>	FOR	1.48
	<i>build</i>	FOR	1.36
	<i>give</i>	TO	13.73
	<i>send</i>	TO	5.34
	<i>say</i>	TO	4.95
	<i>have</i>	TO	3.78
	<i>draw</i>	TO	3.17
	<i>call</i>	TO	2.14
	<i>write</i>	TO	2.1
	<i>pick</i>	TO	1.46

Period	Verbs	Pref.	Coll.str.
1600–1649	<i>prepare</i>	FOR	41.88
	<i>make</i>	FOR	23.63
	<i>provide</i>	FOR	16.69
	<i>find</i>	FOR	6.47
	<i>lay</i>	FOR	6.31
	<i>receive</i>	FOR	6.26
	<i>pay</i>	FOR	4.95
	<i>seek</i>	FOR	2.94
	<i>bless</i>	FOR	2.75
	<i>buy</i>	FOR	2.4
	<i>care</i>	FOR	2.06
	<i>give</i>	TO	51.99
	<i>send</i>	TO	17.07
	<i>call</i>	TO	9.59
	<i>bring</i>	TO	9.01
	<i>show</i>	TO	7.54
	<i>prove</i>	TO	7.1
	<i>say</i>	TO	6.86
	<i>leave</i>	TO	4.71
	<i>write</i>	TO	3.79
	<i>have</i>	TO	3.17
	<i>draw</i>	TO	3.1
	<i>present</i>	TO	2.82
	<i>read</i>	TO	2.23
	<i>tie</i>	TO	2.11
	<i>break</i>	TO	1.41


(continued)

Period	Verbs	Pref.	Coll.str.
	<i>prefer</i>	TO	1.32
	<i>pull</i>	TO	1.32
	<i>reach</i>	TO	1.32

Period	Verbs	Pref.	Coll.str.
1650–1699	<i>prepare</i>	FOR	93.2
	<i>make</i>	FOR	39.37
	<i>provide</i>	FOR	39.1
	<i>lay</i>	FOR	29.62
	<i>have</i>	FOR	14.24
	<i>procure</i>	FOR	10.41
	<i>obtain</i>	FOR	8.95
	<i>purchase</i>	FOR	8.31
	<i>find</i>	FOR	8.18
	<i>choose</i>	FOR	7.39
	<i>get</i>	FOR	7.34
	<i>seek</i>	FOR	5.98
	<i>work</i>	FOR	5.47
	<i>conceive</i>	FOR	4.96
	<i>dig</i>	FOR	4.93
	<i>ask</i>	FOR	4.57
	<i>appoint</i>	FOR	4.51
	<i>receive</i>	FOR	3.86
	<i>keep</i>	FOR	3.71
	<i>institute</i>	FOR	3.17
	<i>buy</i>	FOR	3.02
	<i>search</i>	FOR	2.81
	<i>suffer</i>	FOR	2.46
	<i>preserve</i>	FOR	2.44
	<i>desire</i>	FOR	2.43
	<i>accept</i>	FOR	2.39
	<i>die</i>	FOR	2.15
	<i>care</i>	FOR	2.11
	<i>manage</i>	FOR	2.11
	<i>play</i>	FOR	1.87
	<i>build</i>	FOR	1.83
	<i>praise</i>	FOR	1.77
	<i>found</i>	FOR	1.76

Period	Verbs	Pref.	Coll.str.
	<i>conclude</i>	FOR	1.48
	<i>frame</i>	FOR	1.48
	<i>ordain</i>	FOR	1.47
	<i>order</i>	FOR	1.47
	<i>blow</i>	FOR	1.41
	<i>form</i>	FOR	1.41
	<i>do</i>	FOR	1.3
	<i>give</i>	TO	79.48
	<i>send</i>	TO	55.25
	<i>say</i>	TO	44.36
	<i>bring</i>	TO	26.03
	<i>prove</i>	TO	24.6
	<i>call</i>	TO	19.32
	<i>write</i>	TO	17.72
	<i>present</i>	TO	13.56
	<i>speak</i>	TO	12.97
	<i>leave</i>	TO	12.06
	<i>read</i>	TO	8.03
	<i>propose</i>	TO	7.77
	<i>draw</i>	TO	7.67
	<i>owe</i>	TO	5.13
	<i>show</i>	TO	4.74
	<i>offer</i>	TO	4.28
	<i>tie</i>	TO	3.33
	<i>open</i>	TO	2.85
	<i>secure</i>	TO	2.65
	<i>prefer</i>	TO	2.3
	<i>sing</i>	TO	2.3
	<i>repeat</i>	TO	2.05
	<i>derive</i>	TO	1.79
	<i>carry</i>	TO	1.68
	<i>pull</i>	TO	1.54
	<i>prescribe</i>	TO	1.37
	<i>break</i>	TO	1.33

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