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# Ditransitive verbs and the ditransitive construction. A diachronic perspective

TIMOTHY COLLEMAN

*This paper argues for the adoption of a construction-based perspective to the investigation of diachronic shifts in valency, which is a hitherto largely neglected topic in the framework of valency grammar. On the basis of a comparison of the set of verbs attested in the double object argument structure pattern in a corpus of 18th-century British English with the construction's present-day semantic range, I will distinguish between three kinds of valency shifts. It will be shown that the semantic ranges of schematic argument structure constructions are subject to diachronic change, and that the shifts in valency observed in individual verbs are often part of more general changes at the level of the associated argument structure constructions. The latter part of the paper explores frequency shifts in valency and constructional semantics.*

## 1. Introduction<sup>1</sup>

Whereas valency grammar has been a thriving research area for about half a century and continues to be so—especially, but not exclusively, in Germanic linguistics—it has also been a predominantly *synchronic* enterprise. Existing work in historical valency usually takes the form of a synchronic investigation of the valency behaviour of selected lexical items in a single older language stage, more often than not with a view to the compilation of a valency dictionary for that particular period in the history of the language (see, e.g., Greule's 1999 valency dictionary of Old High German and Maxwell's 1982 valency grammar of Middle High German). Studies with a truly *diachronic* focus, i.e. investigations of the ins and outs of valency *change* have been scarce. Echoing a concern voiced by Ágel (2000, 269), Habermann (2007, 85) states that “what is lacking, is a theory of valency dynamics and shifts.” Similarly, Heringer (2006, 1456) observes that valency research has not as yet succeeded in providing an accurate account of diachronic valency change: in his view, existing studies in this domain are limited to the macro level and lack real explanatory power.<sup>2</sup> The present paper will argue that the development of a theory of valency change may benefit in important ways from the incorporation of insights from *construction-based* theories of argument structure.

To make this argument, I will draw on data on the (recent) semantic evolution of the double object argument structure constructions of English and Dutch, focussing on shifts which have taken place in the course of the last three or four centuries. The paper is structured as follows. First, section 2 briefly elaborates on the limited corpus of existing studies on diachronic valency and section 3 further sets the stage with a number of introductory remarks on the emerging field of diachronic construction grammar. In section 4, we move on to the data analysis, which will start out from an exploration of the semantic range of the English double object argument structure construction at the beginning of Late Modern English and a

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<sup>1</sup> The author is associated with the Linguistics Department at Ghent University. I would like to thank the organisers of and the other participants in the Hamburg workshop on ‘Valency vs. argument structure’ for their comments and suggestions. Bernard De Clerck is to be thanked for allowing the use of corpus data which were collected as part of a previous, joint investigation. My research into the diachrony of argument structure semantics is funded by a BOF grant from Ghent University (Special Research Fund, ‘Variation and change in constructional semantics’). Author's address: [timothy.colleman@UGent.be](mailto:timothy.colleman@UGent.be)

<sup>2</sup> “Alles in allem ist es der Valenzforschung bisher nicht gelungen, den Wandel im Detail zu erklären. Die Vielfalt, Variation und Übergänge wurden bisher nicht durch ein dichtes Netz von Belegen demonstriert. Alle Darstellungen verharren auf der Makro-Ebene und können so die eigentlichen Gründe und Möglichkeiten des Wandels nicht erfassen (Heringer 2006, 1456).”

comparison of these older data with the construction's present-day semantic range of application. A major question that will be addressed in this section is whether the observed shifts in ditransitive complementation represent changes in the valency properties of individual verbs, or in the semantic properties of the double object construction, or both. Section 5 adds a quantitative dimension to the discussion, which will be illustrated with diachronic data on English and Dutch, and section 6 presents the conclusion.

## 2. Some existing ideas on valency change (“Valenzwandel”)

To begin this section, it should be pointed out that I will use the term *valency change* in a strictly diachronic sense throughout this paper, as referring to diachronic shifts in the number of complements selected by a valency carrier and/or in the morphosyntactic realization of those complements. In existing research, the term is also frequently used in a synchronic sense, as referring to all kinds of valency-increasing, valency-decreasing or otherwise valency-changing mechanisms operating on the ‘basic’ valency of a given lexeme, such as passive constructions, applicatives, causativization and anticausativization, reflexivization and middle formation, etc. (see e.g. Haspelmath and Müller-Bardey 2001 for an overview of valency-changing morphological categories in the languages of the world). Similarly, the more specific terms valency reduction and valency extension are often understood in a purely synchronic sense, too; it is well-known—and abundantly illustrated in valency dictionaries of the present-day language such as VALBU for German and VDE for English—that many verbs are associated with several valency patterns, with or without a concomitant change in lexical meaning. German-language research makes a useful terminological distinction between *Valenzwandel* on the one hand, which exclusively refers to diachronic shifts in valency, and *Valenzänderung* on the other, a cover term which also includes synchronic alternations (see e.g. Smailagić 2010). According to this terminology, the present study is concerned with *Valenzwandel*.

The article by Korhonen (2006) in the two-volume handbook on dependency and valency edited by Ágel *et al.* (2003/2006) addresses valency change in the history of the German language. The author, drawing on previous research, gives a brief overview of the major changes which have occurred in each of the three valency-carrying categories, i.e. verbs, adjectives, and nouns. Some of the changes listed in the section on verbal valency are:

- the integration in prototypical clause patterns with a nominative subject of many erstwhile impersonal verbs (e.g. the type *ich hungere* next to the type *mich hungert*);
- the shift towards the Dat + Acc construction or towards a construction with a single accusative + a prepositional object of several verbs which used to select *two* accusative objects (e.g. *anbieten*, *hören*, *unterrichten*);
- the decline of both two-participant and three-participant constructions with genitive objects;
- the rise of constructions with prepositional objects, which, though already in existence in Old and Middle High German, have spread to many more verb classes in Early New High German.

As is evident from this sample (see Korhonen 2006, 1463-1468 for more examples), the presented overview of valency shifts is mostly limited to (the corollaries of) general processes of morphosyntactic change that have taken place in the history of German (cf. Heringer's 2006 statement, quoted above, that existing claims on valency change are limited to the macro-level). This is of course not to say that the closer investigation of such macro-level shifts and their effects on the valency properties of individual verbs is irrelevant for the construction of a theory of valency change, on the contrary. From a diachronic construction grammatical point of view as well, the phenomenon of ‘Genitivschwund’, to take an evident example, presents an interesting cluster of changes well-worthy of linguistic attention: a

number of argument structure constructions with a genitive object as one of their constituting elements have virtually disappeared from the grammar (at least in everyday spoken German) and many verbs which used to select a genitive object have shifted to other two-participant or three-participant valency patterns. However, as will be argued in more detail below, relevant changes in the domain of argument structure are not limited to the emergence of new constructions and the (virtual) demise of others.

Another paper which looks into the area of diachronic valency in some detail is Habermann (2007). Habermann's main argument is that in Old and Middle High German, all kinds of verbs were attested in a *wider* range of structures than in more recent stages of the language, and that this polyvalency was heavily influenced by co-textual and contextual factors. However, most relevant to present purposes is a brief section which identifies three causes of valency change: (i) phonetic shifts resulting in the syncretism of case forms; (ii) the decline of morphological case in favour of analytically formed prepositional cases; and (iii) a decrease in the overall number of available valency patterns linked with a gradual development of prototypical clause patterns (Habermann 2007, 88-90).<sup>3</sup> The latter of these is actually quite intriguing from a construction grammar perspective, as it suggests that the investigated older stages of German did not display the same kind of conventionalized argument structure constructions—in the sense of form-meaning pairings relating an array of semantic roles to a syntactic frame, see below—known from Present-day English and many other modern languages. Though Habermann is not very explicit on this, the gist of her argument seems to be that, next to a variety of semantic functions, the adverbial cases dative, accusative and genitive displayed various *textual* functions in Old and Middle High German and that this complex system has only gradually evolved into the 'modern' system which distinguishes fewer case patterns with comparably less idiosyncratic meanings, and with comparably fewer verbs freely alternating between them. In any event, the causes of valency change identified in Habermann (2007) boil down to very general processes of language change, again. However interesting they are, it is unlikely that these are the only triggers for valency change, nor is it very likely that it will always be possible to explain the valency shifts observed in individual verbs with direct reference to this kind of macro-level tendencies in language change.

The quote from Heringer (2006) in section 1 attributes the lack of an accurate theory of valency change to a lack of empirical pre-studies: we need an extensive network of diachronic data illustrating multiple valency patterns and shifts in valency. In view of this, Greule and Braun (2010, 69) present the collection of more diachronic case studies of individual verbs as one of the two major tasks for historical valency research (next to the compilation of historical valency dictionaries). I would like to add another, construction-based perspective to this: case studies of individual verbs—or, preferably, of semantically coherent classes of verbs—need to be complemented with studies centered on particular argument structure constructions. This is elaborated in the next section.

### 3. Diachronic construction grammar

In construction grammar, schematic syntactic patterns are considered as meaningful entities in their own right, which are not fundamentally different from simpler symbolic units such as lexical items: the whole of grammar consists of a structured network of stored form/meaning-pairings, at varying levels of schematicity and formal complexity. Goldberg's (1995) exposition of the theory of argument structure constructions gives pride of place to the

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<sup>3</sup> Habermann's (2007, 90) original phrasing of the third of these major causes reads as follows: "Valency shift can be caused by a decrease in the variety of possible constructions linked with a gradual development of prototypical clause patterns."

English double object construction [SBJ [V OBJ<sub>1</sub> OBJ<sub>2</sub>]], which is analyzed as a prototypically structured category with a cluster of ‘caused reception’ senses. Each of these constructional subsenses is associated with one or more semantic classes of verbs, so that, for instance, double object clauses with verbs of giving instantiate the construction’s basic sense ‘Agent successfully causes Recipient to receive Patient’ while double object clauses with verbs such as *refuse* and *deny* instantiate a subsense which presents the negation of the basic sense, i.e. ‘Agent causes Recipient *not* to receive Patient’, as illustrated in (1) and (2) below, respectively (see Goldberg 1995, 31–39; 2002 for a brief overview of the construction’s various subsenses; for alternative construction-based proposals, see e.g. Croft 2003 and Kay 2005).

- (1) Sue gave/passed/handed/sold/... her brother a two-volume dictionary.
- (2) The guards refused/denied the convict a last smoke.

Since Goldberg (1995), a lot of work in construction-based grammar has gone into the elucidation of the semantic properties of argument structure constructions from various languages (see e.g. the bibliography on [www.constructiongrammar.org](http://www.constructiongrammar.org)). A recent trend in construction-based research is the growth of interest in issues of intralingual *variation* and *change* in form-meaning pairings—a trend which can also be phrased differently, of course, as the increasing integration of constructionist ideas in historical linguistics and variationist sociolinguistics. An early example of diachronic work along these lines is Israel’s (1996) study of the emergence and schematization of the English *way*-construction. More recent diachronic case studies include Trousdale (2008) on the end of the impersonal construction in English, Barðdal (2009) on the development of case in Germanic, Hilpert (2008) on the emergence of new future constructions in several Germanic languages, Noël & Coleman (2010) on the fate of the accusative-and-infinitive and nominative-and-infinitive patterns in English and Dutch after the 17th century, and Fried (2009) on the rise of new pragmatic meanings in Czech particle constructions, for just a few examples (also see the edited volume by Bergs and Diewald 2008). Diachronic construction grammar has come to the fore as a fruitful area of investigation, an evolution which has also given a new impetus to the well-established framework of grammaticalization research; see, e.g., recent work by Traugott (2008a,b) for a good illustration of the added value to be gained from adopting a construction-based perspective on grammaticalization.

However, there is a tendency in the emerging field of diachronic construction grammar to focus primarily on changes which affect the inventory of constructions available in a given language, the schematization and conventionalization of *new* constructions (or “constructionalization”, see e.g. Trousdale 2010) constituting a particularly active research topic. Coleman and De Clerck (2011) observe that in the domain of argument structure, the majority of existing diachronic studies is concerned with either the emergence of argument structure constructions or their demise; the above-mentioned studies by Israel (1996) and Trousdale (2008) provide good examples of both perspectives. Such topics are of course well-worthy of linguistic investigation: it goes without saying that a wealth of information on the defining properties of constructions as schematic form-meaning mappings is to be gleaned from investigating the way in which they come into being. In addition to such studies, however, there is a need of diachronic case studies of *well-established* patterns that have been part of the grammar for a long time, aimed at keeping track of shifts and fluctuations in their constructional semantics. After all, it is well-known that diachronic variation in the *lexicon* is not limited to the creation of new words and the disappearance of others, but also crucially involves patterns of change in the semantic structure of *existing* words; see, e.g., Geeraerts (1997) for elaborate discussion of many examples of diachronic shifts in lexical semantics.

There is no *a priori* reason to suppose that this should be different for more complex and schematic units. If one accepts that schematic argument structure constructions are meaningful linguistic entities in their own right just like lexical items are, one can also expect that, on careful examination, constructional meanings will be subject to a certain degree of diachronic variation just as well. That is, argument structure constructions may develop new subsenses over time while others grow obsolete, they may undergo prototype shifts, be subject to metaphorical extension, and so on. Crucially for present purposes, such diachronic shifts in constructional semantics may involve changes in the array of verbs and verb classes compatible with a given argument structure construction and hence in the area of verb valency, as will be illustrated in the next section.

#### 4. Changes in ditransitive complementation: three kinds of valency shifts

##### 4.1 The double object construction in 18th-century English

As a case study in constructional semasiology, Coleman and De Clerck (2011) present the results of an exploration of the semantic range of the double object construction in 18th-century English, on the basis of data from the 1710-1780 subperiod of the extended version of the Corpus of Late Modern English Texts (CLMET-EV; cf. De Smet 2005).<sup>4</sup> Manually filtering the results from a set of lexical queries for strings of an object pronoun followed by a determiner produced a dataset of 2,205 double object clauses involving 111 different verbs. Many of these verbs are still compatible with double object syntax in Present-day English, but, rather unsurprisingly, this does not apply across the board. The corpus examples in (3) to (7) below feature a number of verbs which do not readily combine with this construction anymore. Two of these, *whisper* and *deliver*, even figure prominently in the literature on the dative alternation as textbook examples of ‘non-alternators’, i.e., verbs which occur in the *to*-dative pattern, but *not* in the double object construction (see Pinker 1989, 112-113, Levin 1993, 45-47, and many others).

- (3) I bid him *bespeak* me a remise, and have it ready at the door of the hotel by nine in the morning. (Sterne, 1767)
- (4) As I spoke, poor Mr Burchell entered the house, and was welcomed by the family, who shook him heartily by the hand, while little Dick officiously *reached* him a chair. (Goldsmith, 1766)
- (5) And a man that could in so little a space, first love me, then hate, then *banish* me his house. (Richardson, 1740)
- (6) At her departure she took occasion to *whisper* me her opinion of the widow, whom she called a pretty idiot. (Fielding, 1749)
- (7) I send you here inclosed a letter of recommendation to Monsieur Capello, at Venice, which you will *deliver* him immediately upon your arrival. (Chesterfield, 1749)

On a crude level of analysis, the verbs in (3) to (7) have met with the same fate: their list of valency patterns used to include the double object construction, but this particular pattern has been deleted from the list. On a more detailed level there are relevant differences between

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<sup>4</sup> In a lot of construction-based work, following Goldberg’s example, the label *ditransitive* refers to the construction with two *bare* NP objects exclusively, i.e. to the double object construction. However, other authors use the term in a wider sense, as referring to *any* construction with theme and recipient/beneficiary/possessor objects: in this perspective, the English *to*-dative is a ditransitive construction as well, as is the *with*-construction in *He presented her with a medal*. To avoid confusion I will use the label *double object construction* throughout this paper to refer to the construction with two *bare* NP objects.

them: the above verbs fall into at least three categories depending on the kind of valency change involved, which will be discussed in turn in the next three sub-sections.

#### 4.2 Valency change as a consequence of shifts in lexical semantics

Valency theory distinguishes between (synchronic) valency alternations in which the different syntactic patterns a verb can enter into correspond to different *senses* of the verb in question, and alternations where the different possible valency patterns involve one and the same verb sense (see e.g. Korhonen 1995). The same distinction applies to diachronic valency shifts. The examples in (3) and (4) involve now-obsolete senses of the verbs *bespeak* and *reach*, respectively. In present-day English, *bespeak* is an infrequently attested verb meaning ‘to be evidence of’ (e.g. *His accent bespeaks his upper-class background*). The verb has lost the older meaning which is at stake in (3), viz. ‘to order, arrange for’, and, consequently, it can no longer be used in the double object construction. Similarly, the ‘to give, offer, hold out to’ sense of *reach* in example (4) is no longer part of the everyday language. In such cases, the shift in valency is a simple consequence of a shift in lexical semantics: all kinds of other verbs from the semantic classes *bespeak* and *reach* used to belong to are still widely used with double object syntax (e.g. *order, reserve, book, ... ; pass, hand, offer, ...*). Examples of this kind are relatively scarce in the database of 18th-century double object clauses, but additional examples of verbs with now-obsolete ditransitive senses can be found in earlier language stages.

#### 4.3 Valency change as a consequence of shifts in constructional semantics

*Banish* as used in (5) above is part of a larger set of verbs that could be used with double object syntax in earlier stages of English to encode events of ‘banishment’. Additional 18th-century examples from CLMET are listed in (8) to (11) below; also see the discussion of verbs of banishment in Rohdenburg (1995, 109-113).

- (8) I will put it entirely into your power to *discharge* her the house, if you think proper. (Richardson, 1740)
- (9) I therefore for the present *dismiss'd* him the Quarter deck. (Cook, 1771)
- (10) From some hints in the two letters, I should expect that the eunuchs were not *expelled* the palace without some degree of gentle violence. (Gibbon, 1776)
- (11) [He] therefore *forbade* her the court. (Walpole, 1744)<sup>5</sup>

In all of these cases, the direct object refers to the place which the indirect object referent is ordered to leave from or forbidden to enter (or, metonymically, to an occupation associated with that place). Clearly, there is no shift in lexical semantics involved here: the sense of *banish* in (5) above is ‘to not allow someone to stay in a particular place’, which is still the basic meaning listed in present-day dictionary entries. However, in Present-day English, *banish* and semantically related verbs are no longer compatible with the double object construction: rather than as a zero-marked object in a double object construction, the place which someone is ordered to leave is now encoded as a prepositional phrase with *from* or *(out) of*, e.g. *He banished me from his house*.

What is at stake here is a shift in *constructional* semantics, i.e. in the semantic range of the argument structure construction. At one time the double object construction *could* be used to encode events in which someone is banished from a place, but this is no longer the case.

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<sup>5</sup> The *forbid* example is a bit different from the others in that *forbid* is not, strictly speaking, a verb of banishment or expulsion. However, if the direct object refers to a place, as in (11), the result is relevantly similar.

Such shifts in constructional meaning boil down to changes in the array of verb classes which are eligible for use in a given construction and as such affect the valency properties of whole semantic classes of verbs. There is a crucial distinction between this kind of change operating at the level of the verb class and the lexically-motivated valency shifts discussed in the previous sub-section, the latter of which are by definition characteristic of individual verbs.

Colleman and De Clerck (2011) present and discuss a number of such diachronic shifts in the semantic range of the English double object construction. Another now-obsolete constructional subsense—which as it happens had virtually completely disappeared from the grammar even *before* the 18th century, judging by the CLMET data—is the antonym of the construction’s basic ‘caused reception’ sense, viz. ‘Agent causes Possessor to *lose* Patient’. Until the 16th or 17th century, the double object construction accommodated agentive verbs of dispossession such as *bereave*, *rob*, *deprive*, *dispossess*, *divest*, etc. (see Visser 1963, 633-635 for examples). Very few examples from later centuries are attested and today, the only three-participant construction such verbs appear in is the construction with a possessor direct object and an *of*-phrase (e.g. *They robbed him of his wallet*). If we abstract away from special cases such as *That mistake cost/lost him his job*, which do not encode volitional acts of taking away, the double object construction has retreated from the semantic domain of ‘dispossession/loss of possession’ (see Coleman and De Clerck 2009 for further elaboration).

A final example to be discussed in this sub-section comes from the domain of communication verbs. A well-known observation about the semantic range of the double object construction in Present-day English is that it welcomes so-called ‘verbs of type of communicated message’ (e.g. *tell*, *ask*, *show*, *write*, *read*, *quote*, ...) but that it excludes other subtypes of communication verbs, most notably ‘verbs of manner of speaking’ such as *shout*, *whisper*, *mumble*, etc.; see the reported ungrammaticality of the examples in (12) in Pinker (1989, 112).

- (12) \* John shouted/screamed/murmured/whispered/shrieked/yodeled/yelled/bellowed/  
grunted/barked Bill the news.

According to Pinker, the relevant factor blocking the verbs in (12) from the double object construction is, that “though [these verbs] can be used to express the idea of successful communication, [they] do not necessarily imply that it has taken place; what they are choosy about is the manner in which the sender sends the message” (1989, 112). Verbs of the *tell* type on the other hand do imply that successful communication has taken place. Whether or not this is the correct semantic generalization, it is evident from the observation in (12)—which is shared by many other authors including Levin (1993, 47), Goldberg (1995, 121), etc.—that the double object construction is choosy about the kind of communication verbs it combines with. Again, the CLMET data show that the situation was different in 18th-century English. The original database of double object clauses semi-automatically culled from CLMET included the *whisper* example in (6) above, repeated here for convenience as (13a), and an additional query for *all* forms of *whisper* in the relevant sub-period of CLMET revealed 13 more double object examples, including instances with a complement clause rather than a NP direct object such as (13b), on a total of 72 *whisper* clauses.

- (13) a. At her departure she took occasion to *whisper* me her opinion of the widow,  
whom she called a pretty idiot. (Fielding, 1749)  
b. During this debate, the Duke took occasion to *whisper* the King, that his  
Majesty had a villain of a chancellor. (Cibber, 1753)



In other words, the data show that the double object use of *whisper* was in fact quite well-established in this earlier stage of Modern English. It remains to be investigated in more detail to what extent the same applied to the other verbs in (12) and their predecessors, but, in any event, the constraint banning verbs of manner of speaking *as a class* from the double object construction seems to postdate the 18th century.

At this stage, it is useful to dwell for a moment on the question of what exactly a *ditransitive verb* is supposed to be. From the perspective of valency theory, the answer is quite straightforward: *ditransitive verbs* or *double object verbs* are verbs which have the double object construction as one of their valency patterns.<sup>6</sup> It is acknowledged that speakers sometimes use verbs in novel ways, intentionally or unintentionally (see e.g. the concept of *Valenzkreativität* in Ágel 2000, 270), but the basic idea is that each verb is lexically associated with a relatively small number of syntactic patterns. In the VDE, *give*, *hand*, *tell*, *bring*, *offer*, *refuse*, *buy*, and *get*—to give just a handful of examples—are listed as selecting NPs as their first and second complements plus a third complement which encodes the BEN/REC role and appears as an NP (alternating with a *to*-NP in some cases, with a *for*-NP in others).<sup>7</sup> In other words, the valency potential of these verbs includes the double object construction. *Provide*, *deliver*, *explain*, *whisper*, and *steal* are a number of examples of verbs which—according to the valency description in the dictionary—are lexically associated with one or more other three-participant constructions, but *not* with the double object construction. Hence, these are not double object verbs.

From a construction grammar perspective, a double object verb is a verb which can enter into (or, in constructionist terminology, *fuse with*) the double object argument structure construction. The process of fusion between constructions and lexical verbs is largely driven by semantic considerations: the verb has to be compatible with the construction's meaning. In Goldberg's approach, argument structure constructions typically display a family of related senses rather than a single abstract meaning. For the English double object construction, as was already mentioned at the beginning of this section, she posits six related 'caused reception' senses, each of which is associated with one to three semantic classes of instantiating verbs, plus a number of metaphorical extensions. In practice, therefore, the construction is associated with some ten semantic classes of verbs (verbs of giving, verbs of future transfer, verbs of permission, verbs of type of communicated message, etc.), within which it can be used productively. While Goldberg's account in terms of distinct constructional *subsenses* is not universally accepted throughout the construction grammar research community, there is a large consensus that an essential part of speakers' grammatical knowledge of argument structure constructions is constituted by a kind of inventory of the *semantic classes of verbs* which can be used in the construction and of the associated semantic modifications. In Croft's (2003) alternative account, for instance, the double object construction is not, strictly speaking, a polysemous construction with a family of related meanings but rather consists of a cluster of monosemous *verb-class-specific constructions*. The bottom line is the same, though: in order to be eligible for use in the double object construction, verbs have to belong to one of the rather narrowly circumscribed semantic classes conventionally associated with it.

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<sup>6</sup> Under the narrow interpretation of the term *ditransitive construction*, that is (see footnote 4). Under the broad interpretation, a ditransitive verb would be any verb that has the double object construction *and/or* another three-participant 'transfer' construction (such as the *to*-dative) in its list of valency patterns. That is not the issue here, of course: what matters is that, from the perspective of valency theory, ditransitive verbs are verbs lexically associated with the construction of the same name.

<sup>7</sup> BEN/REC is defined as "a person or entity at whom an action or process is directed or that benefits from it" (VDE, xiii).

The examples discussed earlier in this section illustrate that the array of verb classes compatible with a given argument structure construction is not immune to change. In earlier stages of English, the set of verb classes conventionally associated with the double object construction included verbs of banishment, verbs of dispossession and verbs of manner of speaking but those particular options have disappeared. In this way, many individual instances of diachronic valency shift represent wider-level changes in the semantic range of the associated argument structure construction.

An important note to be made before we move on to the next sub-section, is that, since semantic compatibility and semantic class membership are graded notions, the construction grammar view predicts that there is not always a sharp and clear distinction between the verbs that *can* and those that *cannot* be used in a particular argument structure construction. Stefanowitsch (2006) observes that a detailed examination of the syntactic behaviour of “famously non-ditransitive verbs” in a large corpus will more often than not produce a number of counterexamples. One of his examples is the verb *whisper*, which, indeed, is sporadically attested in the double object construction in real language—as illustrated in the Internet example in (14)—even though Pinker (1989) and many others have claimed such uses to be impossible.

- (14) She had not been allowed ... to bury the two people she had loved most in the world ... to *whisper* them a last goodbye. (Meg Hutchinson, *Peppercorn Woman*, quoted in Stefanowitsch 2006, 70)

Stefanowitsch argues that, if they are sufficiently rare, such occasional instances do not invalidate the corresponding semantic generalizations. A couple of instances like (14) may occur on the Internet, but, very relevantly, the combination of *whisper* with double object syntax is *not* attested in the 100-million-word British National Corpus (on a total of 2,976 *whisper* clauses) (see Stefanowitsch 2006, 69). Hence, the generalization that the double object construction does not welcome verbs of manner of speaking is still valid, though it should be rephrased as a strong statistical tendency rather than an absolute constraint. Occasional ‘counterexamples’ such as (14) are probably best thought of as ad-hoc creations via analogy with more conventional patterns such as *to give/bid/tell s.o. a last goodbye*. Goldberg (2011), too, notes that verbs such as *whisper*, *explain*, *transfer*, *return* and other textbook cases of verbs compatible with the *to*-dative but not with the double object construction, *do* occasionally occur in the double object construction in corpus data. However, the actual frequencies of such uses are negligible compared to the *to*-dative frequencies of the verbs in question, and to the double object frequencies of verbs conventionally associated with the construction. In the next sub-section, we will meet another example of a verb which occurs with double object syntax only very sporadically in the present-day language.

#### 4.4 More idiosyncratic instances of valency change

The previous sub-sections discussed shifts in valency which are the syntactic correlate of *semantic* shifts, i.e. either shifts in lexical semantics (4.2) or shifts in constructional semantics (4.3). However, not every change in ditransitive complementation observed in the data can be straightforwardly linked to a semantic evolution. The fate of double object *deliver* provides a good example. The CLMET data contain several instances of this pattern; see the examples in (15).

- (15) a. I send you here inclosed a letter of recommendation to Monsieur Capello, at

Venice, which you will *deliver* him immediately upon your arrival.  
(Chesterfield, 1749)

- b. One afternoon, while they were drinking tea, little Betty, so was the maid called, came into the room, and, calling her master forth, *delivered* him a card which was directed to Amelia. (Fielding, 1751)

A query for all instances of *deliver* in the relevant sub-period of CLMET produced 338 instances, 17 of which represent the double object construction. In 16 out of these, the direct object refers to a letter or a similar object (a card, a bill, etc.); the remaining example has *either the money or the wheat* as its direct object. Semantically, there is nothing very remarkable about the instances in (15): they denote a situation in which an object passes from an agent to a recipient, i.e. a basic ‘caused reception’ event. *Deliver* belongs to the same semantic class as *give*, *hand*, *bring*, *pass*, etc., all of which are of course still frequently used in the double object construction today.

*Deliver* itself is not: in studies of the dative alternation in Present-day English, it is regularly mentioned as an example of a non-alternating verb occurring in the *to*-dative only (e.g. Oehrle 1976, Pinker 1989, Levin 1993, Randall 1992).<sup>8</sup> Again, this statement has to be qualified a bit: double object examples of *deliver* do sporadically occur in real language. For instance, while the lemma frequency of *deliver* in the BNC is 6,368, a manual screening of the results from an automated query for all strings of the verb immediately followed by a personal pronoun which is in turn followed by another personal pronoun, a determiner, a definite or indefinite article or a bare noun reveals 17 double object examples. Most of these denote metaphorical transfers, with direct objects such as *a look*, *an angry homily*, *a backhanded compliment* or *a pounding defeat*, but there are also three or four examples denoting a basic transfer event in which a concrete object changes hands, such as the one in (16b).

- (16) a. Ronni turned to *deliver* him a look of disapproval. [JXT W\_fict\_prose]  
b. I see, I thought I *delivered* you two cups and you've only had one, right. [KD0 S\_conv]

Obviously, while such instances prove that the combination of *deliver* with double object syntax is not altogether impossible in Present-day (British) English, a total of 17 instances in a 100-million-word corpus does not amount to very much in terms of frequency. The difference with the proportion of double object instances in the CLMET data is highly significant (chi-square=47.7, df=1,  $p < .0001$ ), even if for CLMET we only count the instances which would have been retrieved by the same queries (viz. 9 out of the set of 17 originally retrieved double object instances).<sup>9</sup> The combination of *deliver* with double object syntax has become a marginal pattern.

The lexical semantics of *deliver* has not changed dramatically since the 18th century, nor does the verb belong to a whole semantic class of verbs that have lost the ability to enter into the double object construction. A brief look at the examples listed under the relevant subsense in the OED (viz. sense 8a ‘to hand over, transfer, commit to another’s possession or keeping’) suggests that *deliver* may have undergone a certain degree of semantic specialization: whereas it seems to have been a fairly general ‘transfer of possession’ verb, it is now mostly used to denote transfer events in which there is some distance to be travelled to the location of the recipient. However, this can hardly suffice as an explanation for the virtual

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<sup>8</sup> Randall (1992) even labels the class of verbs occurring in the *to*-dative but not in the double object construction the *deliver*-class, thus presenting *deliver* as the archetypal non-alternating verb.

<sup>9</sup> The remaining CLMET examples either have a non-pronominal indirect object (e.g. *I will deliver Amorevoli his letter*) or a marked word order (e.g. example 15a in the main text).

disappearance of *deliver*'s double object use: after all, several other verbs which lexically denote a transfer over some distance just as well—e.g. *bring*, *take*, *send*, *ship*—are still perfectly eligible for use in the double object construction. In sum, the observed shift in *deliver*'s valency potential does not relate to a shift in semantic compatibility. Instead, *deliver* represents a more idiosyncratic kind of valency shift. It is the kind of verb for which present-day speakers have to learn, in some way or another, that it does not combine—or hardly ever combines—with double object syntax, though it has the 'right' semantics (see Stefanowitsch 2011 and Goldberg 2011 for two recent proposals about how this learning comes about). Our data from CLMET show that in 18th-century language, the verb was less choosy.

On a sidenote, the valency shift observed in *deliver* can be related to the well-known *Latinate restriction*: it has often been observed in the linguistic literature on the dative alternation that there is a whole series of verbs of Latinate origin which are excluded from the double object construction (see Jespersen 1927, Green 1974, Pinker 1989, Levin 1993, Pesetsky 1995, Harley 2007, and many others). Examples include *contribute*, *present*, *remit*, *transfer*, *return*, *acquire*, *purchase*, *construct*, *design*, *announce*, *explain*, *inform*, *advise*, *repeat*, *report*, and of course *deliver*. The CLMET data show that several of these verbs did (more than sporadically) occur with ditransitive syntax in 18th-century English: each of the verbs in (17) to (20) has at least 5 double object occurrences in the first sub-period of the corpus (see De Clerck and Coleman 2009 for frequencies and further discussion).

- (17) He sent the cardinal back a fine gold repeater; who *returned* him an acate snuff box, and more cameoes of ten times the value. (Walpole, 1740)
- (18) [I thank him] for *designing* me a monument I know the world will reflect I never deserved. (Cibber, 1753)
- (19) I think I *repeat* you his very words; for the impression they made on me is never to be obliterated. (Fielding, 1751)
- (20) But now, that you have put it into my head, seriously Mr Thornhill, can't you *recommend* me a proper husband for her? (Goldsmith, 1766)

So, whatever the exact nature of the Latinate restriction—recent studies agree that it is a matter of phonological and/or morphological rather than etymological constraints but differ on the exact formulation—the CLMET data indicate that it was less categorically adhered to in 18th-century English: the valency shift observed in *deliver* is paralleled in several other three-participant verbs of Latinate origin, including verbs of giving as well as verbs of creation and verbs of communication. The exact scope of the Latinate restriction in older language stages can only be established through an investigation at the level of the construction, which takes stock of the behaviour of Latinate verbs from *all* verb classes conventionally associated with the construction at a given time. I will not pursue this issue here. Instead, the next sub-section explores frequency-related phenomena.

## 5. Frequency-related phenomena in valency and constructional semantics

### 5.1 Shifts in the relative frequencies of valency patterns

The examples discussed in the previous section involve now-obsolete double object patterns: several verbs which could be combined with the double object construction in the investigated older language stage have (virtually) lost this possibility.<sup>10</sup> The qualification in brackets in the previous sentence is needed because, in practice, there is no clear-cut distinction between

<sup>10</sup> There are instances of the reverse pattern as well: according to Rohdenburg (2009), the double object uses of *issue* and *feed* are fairly recent additions to the grammar, for instance.

patterns which have disappeared completely and patterns which have become extremely unusual, as our discussions of *whisper* and *deliver* have shown (also see Stefanowitsch 2006 on the continuum between significantly rare and significantly absent linguistic structures). There is an important *frequency* dimension to valency change: existing verb-structure combinations may significantly increase or decrease in frequency over time, and the balance between ‘competing’ patterns—e.g. between the double object and *to*-dative uses of a given verb or set of verbs—may shift, without this necessarily leading to the disappearance or marginalization of one of them.

~~Another terminological note is in order here. In valency theory, ‘quantitative’ valency often simply refers to the number of complements selected by a valency carrier, and ‘qualitative’ valency then refers to the morphosyntactic realization of those complements (cf. VDE, xxxii). The present article uses the term in a different sense, as referring to the relative frequencies of the different valency patterns attested with a verb.~~ It has been shown that subcategorization probabilities are relevant to a variety of psycholinguistic issues, such as structural priming, the resolution of temporary syntactic ambiguities, and so on: relevant references include Trueswell and Kim (1998), Lombardi and Potter (1992), and Wilson and Garnsey (2008). In other words, there is considerable evidence that speakers have access to probabilistic information on the relative frequencies of different verb-structure combinations, as is only to be expected from a usage-based perspective on grammar (see e.g. Roland and Jurafsky 2002 and Hare *et al.* 2004 for further discussion). Diachronic investigations of the syntactic behaviour of individual verbs often reveal important shifts in these relative frequencies. The remainder of this sub-section briefly lists a number of examples, referring to the original publications for quantitative details.

Colleman and De Clerck (2008) look into the ditransitive frequencies of the semantically ‘atypical’ double object verbs *envy* and *forgive* from a diachronic perspective. These verbs are still regularly used with double object syntax in present-day language, but a comparison of the attested frequencies in three sub-periods of CLMET (1710-1780; 1780-1850; 1850-1920) and in the imaginative writing component of the present-day BNC reveals a consistent drop in relative frequency, the double object uses of both verbs gradually giving way to various other patterns such as *envy/forgive someone for something*, *envy something in someone*, etc. Ultimately, this decline in frequency may lead to the complete elimination of double object *envy* and *forgive* from the grammar, but of course there is no way of predicting the direction of future change. Rohdenburg (2009) shows a similar decline in double object frequency for *present* and *furnish*, but one that seems to be more pervasive in British English than American English. Again, the verbs in question are mostly used in other constructions (viz. the *to*-dative and the *with*-construction in *He presented/furnished us with the necessary tools*). Finally, for an example from outside the ditransitive domain, Noël and Coleman (2010) present data from CLMET on the accusative-and-infinitive (ACI) and nominative-and-infinitive (NCI) frequencies of a large set of verbs of perception, cognition, and utterance in English and Dutch which reveal a number of interesting frequency shifts. *Find*, for instance, displayed a significant preference for the ACI pattern (*They found him to be guilty*) in 17th-century language but developed a significant preference for the NCI pattern (*He was found to be guilty*) in later centuries.

## 5.2 Quantitative shifts in constructional semantics

The decline in relative frequency of the double object uses of *envy* and *forgive* reported in Coleman and De Clerck (2008) can also be viewed from the perspective of the double object argument structure construction, as the gradual decline of a particular cluster of uses of the construction, viz. those related to the expression of feelings and attitudes—a set of uses that is

obviously quite different from the basic ‘caused reception’ uses of the construction, semantically. In present-day lexicology, a distinction is made between *qualitative* and *quantitative* shifts in semantic structure: the latter term refers to fluctuations in the structural weight of the various senses or clusters of uses of a given lexical item (see, e.g., Geeraerts 1997, Grondelaers *et al.* 2007). Analogously, ~~Similarly to the distinction between qualitative and quantitative valency shifts in individual verbs,~~ we can distinguish between qualitative and quantitative semantic shifts at the level of the argument structure construction. Qualitative shifts in argument structure semantics are changes in the array of constructional subsenses, i.e. in the types of extralinguistic situations the construction can or cannot be used to encode, such as the retraction of the English double object construction from the domains of ‘banishment’ and ‘(volitional) dispossession’. Quantitative shifts are shifts in the structural weight or relative degree of salience of the various uses of a construction: a particular subsense or cluster of uses which was quite central to the construction’s meaning at a given period in time may occupy a more peripheral position in the construction’s semantic network at a later time, or vice versa. ~~(see Grondelaers *et al.* 2007 for a brief overview of qualitative versus quantitative aspects of semantic structure).~~ Such diachronic shifts along the core-periphery axis can be identified through a more quantitative analysis of frequency data. To give an impression of the general approach and the issues at stake, this sub-section presents the results from a preliminary investigation of quantitative shifts in the semantics of the *Dutch* double object construction; the same perspective could of course be adopted in diachronic studies of the equivalent construction in English.

The Dutch double object argument structure construction is shown in the constructed example in (21). Formally, it closely resembles the English construction: the verb is combined with an agent subject and bare NP theme and recipient objects.

- (21) *De winkelier heeft mijn vader een boek gegeven/verkocht/beloofd/gestuurd.*  
 the shopkeeper has my father a book given/sold/promised/sent  
 ‘The shopkeeper has given/sold/promised/sent my father a book.’

Semantically, there is a large degree of overlap, too. Just like its English equivalent, the Dutch construction welcomes verbs of giving as well as verbs from a number of related verb classes, so that it can encode a variety of ‘caused reception’ scenarios. Interesting differences with English include the presence in Dutch of two sets of complex ‘dispossession’ verbs (with the prefix *ont-* or the particle *af*, e.g. *ontnemen* and *afnemen*, both of which can be glossed ‘take away’) which can enter into the double object construction, and the virtual absence of ‘benefactive’ double object uses with verbs of creation and obtaining, at least in present-day standard Netherlandic Dutch (see below). Further details about the semantic range of the Dutch double object construction are provided in studies such as Van Belle and Van Langendonck (1996), Geeraerts (1998) and Coleman (2009).

The quantitative exploration is based on a broad classification into eight semantic clusters of two sets of 500 to 600 double object instances, representing present-day Dutch and mid-19th-century Dutch, respectively. The present-day data are taken from a 0.5 million word sample from the newspaper component of the CONDIV corpus—from the 1998 volume of the Dutch broadsheet *NRC Handelsblad*, to be more exact—which was manually skimmed to identify all occurrences of the double object construction as part of a previous investigation. This sample was found to contain 528 double object clauses, excluding clauses with sentential rather than nominal direct objects as well as a number of special cases such as possessor datives with complex predicates (see Coleman 2009 for further details on the selection procedure). For the older data, a different retrieval procedure was used: the first ten volumes of the literary and cultural periodical *De Gids* (‘The Guide’, 1837-1846) were lexically

queried for all instances of the third person plural pronoun *hun* ‘them’. The difference between the *hen* form for direct objects and the *hun* form for indirect objects in formal written language is the only remnant of the otherwise-long-obsolete distinction between dative and accusative case in Dutch (see, e.g., Haeseryn *et al.* 1997, 247-248). The manual analysis of the over 2300 *hun* occurrences in the older corpus produced a dataset of exactly 600 double object instances, excluding the same ‘special’ categories as in the present-day data.<sup>11</sup>

The eight semantic categories distinguished in the analysis are: (i) actual reception (with verbs such as *geven* ‘give’, *schenken* ‘give (as a present)’, *verkopen* ‘sell’, *brengen* ‘bring’, etc.), (ii) conditional/future reception (e.g. *aanbieden* ‘offer’, *beloven* ‘promise’, *toestaan* ‘permit’), (iii) communication (e.g. *vertellen* ‘tell’, *aanraden* ‘advise’, *tonen* ‘show’, but also including uses such as *iemand inlichtingen geven* ‘to give s.o. information’), (iv) abstract events (e.g. *iemand een kus geven* ‘to give s.o. a kiss’, *iemand een bezoek brengen* ‘to pay s.o. a visit’), (v) refusal/blocked transfer (e.g. *weigeren* ‘refuse’, *ontzeggen* ‘deny’), (vi) dispossession (e.g. *kosten* ‘cost’, *ontnemen/afnemen* ‘take away’), (vii) benefactive/maefactive (e.g. *kopen* ‘buy’, *maken* ‘make’, *iemand de deur openen* ‘to open s.o. the door’) and (viii) attitudinal (e.g. *benijden* ‘envy’, *vergeven* ‘forgive’, *gunnen* ‘not begrudge’). Table 1 shows the distribution of the observed double object instances over these eight semantic categories; in both datasets, there is a small rest category of items which represent highly infrequent other uses or which resist straightforward semantic classification.

	Actual rec.	Cond. rec.	Comm.	Abstr.	Ref.	Disp.	Ben/mal	Att.	Rest	TOT.
1837- 1846	177 (29.5%)	43 (7.2%)	170 (28.3%)	92 (15.3%)	16 (2.7%)	39 (6.5%)	27 (4.5%)	28 (4.5%)	8	600 (100%)
1998	220 (41.7%)	35 (6.6%)	67 (12.7%)	128 (24.2%)	8 (1.5%)	35 (6.6%)	3 (0.5%)	16 (3%)	16	528 (100%)

**Table 1 Distribution of double object instances over the eight semantic categories**

The difference in distribution between the two investigated periods is highly statistically significant, as shown by a simple chi-square test (chi-square=76.11, df =7,  $p < .0001$ ). This goes to show that even a relatively crude semantic classification of this kind can reveal quantitative shifts in constructional semantics: some clusters of double object uses have clearly decreased in relative frequency since the mid-19th century, whereas others have increased. While this is not the place to comment on these quantitative shifts in great detail, it can be observed that the frequency data in Table 1 provide corroboration for at least one earlier observation about the diachrony of the Dutch double object construction. Several authors have pointed out that the use of the construction to encode events which involve a beneficiary or maleficiary rather than a recipient or possessor is restricted to a handful of infrequent verbs of food preparation in present-day standard Netherlandic Dutch (e.g. *iemand een drankje inschenken* ‘to pour s.o. a drink’), whereas the lexical and semantic possibilities were wider in older language stages (and are wider still in Belgian Dutch and certain dialects of Netherlandic Dutch) (cf. Van Bree 1981, Verhagen 2002, Coleman 2010). The sharp drop in frequency observed in the data from CONDIV and *De Gids* confirms this: in the present-day corpus, benefactive/maefactive uses are virtually absent, whereas they still account for about one out of twenty double object instances in the 19th-century data (chi-square goodness of fit=14.88, df =1,  $p < .001$ ). Other findings are less anticipated: the drop in the relative frequency of the communication uses, for instance, is quite intriguing. We must be wary of

<sup>11</sup> The large number of false hits is due to the fact that *hun* is also frequently used as a *possessive* pronoun, and as a personal pronoun in combination with *two-place* indirect object verbs such as *overkomen* ‘happen to’ and *aanstaan* ‘please’.

jumping to unfounded conclusions, of course: it cannot be ruled out that this is an effect of the way in which the data for the older period were collected (viz. via a lexical query for *hun* ‘them’), for instance, and/or there might be stylistic effects involved. All of this is in need of further investigation, but in any event, this quite unexpected outcome illustrates the potential of the general approach for uncovering hitherto unnoticed semantic shifts.

For a final note, consider the observed frequencies of ‘dispossession’ uses in the two corpus samples. On first sight, there is no significant change in the structural weight of this cluster of uses: in both periods, ‘dispossession’ uses account for about 6.5 % percent of the total number of double object tokens. However, on closer inspection, it turns out that in the present-day data, the atypical non-volitional dispossession verb *kosten* ‘to cost’ accounts for over half of these tokens. If we leave *kosten* out, the frequencies drop to 31 ‘dispossession’ tokens in the 19th-century data versus 14 tokens in the new data, and this *is* a significant difference (chi-square goodness of fit= 3.85, df =1, p <.05). In other words, the structural weight of volitional ‘dispossession’ uses involving verbs such as *ontnemen/afnemen* ‘take away’ has diminished since the 19th century. This contrast points towards the need of a *multidimensional* design in future quantitative research into the semantics of the double object construction, in which each token is coded on a number of different semantic parameters (direction of the transfer, volitionality of the causer, animacy of the recipient, ...), along the lines outlined in Geeraerts (1998) and Coleman (2009). Such an approach will allow the uncovering of more subtle shifts in the data.

## 6. Conclusion

The major aim of the present paper was to demonstrate how the study of diachronic valency shifts, a hitherto largely neglected topic in the framework of valency grammar, can benefit from the adoption of a construction-based perspective. I have presented and discussed a number of shifts in the area of ditransitive complementation which show that the semantic structure of schematic argument structure constructions is subject to diachronic change. In 18th-century English, the array of constructional subsenses of the double object argument structure construction included ‘banishment’, ‘(volitional) dispossession’ and ‘manner of speaking’ uses, for instance, but the construction’s present-day range of application no longer includes those semantic domains and the instantiating verbs are now exclusively used in other (three-participant) argument structure constructions. In this way, shifts in valency observed in individual verbs often represent wider-level changes in the semantic ranges of the associated argument structure constructions.

In their turn, these constructional shifts may be part of more general processes of language change. For instance, several of the now-obsolete double object uses discussed in the previous sections have been replaced by prepositional constructions: with *from* in the case of ‘banishment’ verbs, with *of* in the case of dispossession verbs such as *rob* and *deprive*, etc. These shifts can be seen as instances of a more general pattern of morphosyntactic change in the history of English, namely the tendency to replace nominal structures with more ‘explicit’ prepositional structures (also see Rohdenburg 1995). However, we need to refer to the more specific level of the argument structure construction to explain why *these* uses of the double object construction have disappeared, while others have subsisted. For instance, the fact that double object *give*, *offer*, *send*, *bring*, *promise*, *tell*, etc. have survived despite the availability of a good prepositional alternative there as well (viz. the *to*-dative) can only be accounted for by referring to the more central position of these ‘caused reception’ uses in the construction’s semantic network (see the semantic specialization hypothesis developed in Coleman and De Clerck 2011). In addition, there are constructional shifts which cannot be related to general processes of morphosyntactic change at all. The data from CLMET suggest that the Latinate



restriction has become stronger compared to earlier language stages, for instance. If this is corroborated by future research, it would surely constitute a relevant fact about the history of the double object construction in English. It is hardly likely, however, that this particular evolution is linked with a more general process of grammatical change, illustrating once more that the argument structure construction is a locus of language change in its own right.

Finally, on a more general note, the further investigation of argument structure constructions from a diachronic perspective cannot only make an important contribution to the development of a theory of valency dynamics and shifts, but will quite probably produce relevant new insights into the nature of constructional semantics, too. As has been argued in the final part of this paper, future investigations into this domain should pay attention to both qualitative and quantitative shifts in semantic structure.

## Works cited

- Ágel, Vilmos (2000). *Valenztheorie*. Tübingen: Gunter Narr.
- Ágel, Vilmos, Ludwig M. Eichinger, Hans W. Eroms, Peter Hellwig, Hans J. Heringer and, Henning Lobin (2003/2006). *Dependenz Und Valenz/Dependency and Valency: Ein Internationales Handbuch Der Zeitgenössischen Forschung/An International Handbook of Contemporary Research*. Two volumes. Berlin/New York: Mouton de Gruyter.
- Barðdal, Jóhanna (2009). "The Development of Case in Germanic". Jóhanna Barðdal and Shobhana L. Chelliah, eds. *The Role of Semantic, Pragmatic and Discourse Factors in the Development of Case*. Amsterdam/Philadelphia: John Benjamins, 123-159.
- Bergs, Alexander and Gabriele Diewald, eds. (2008). *Constructions and Language Change*. Berlin/New York: Mouton de Gruyter.
- Colleman, Timothy (2009). "The semantic range of the Dutch double object construction. A collostructional perspective". *Constructions and Frames* 1, 190-220.
- Colleman, Timothy (2010). "Lectal Variation in Constructional Semantics: 'Benefactive' ditransitives in Dutch." Dirk Geeraerts, Gitte Kristiansen and Yves Peirsman, eds. *Recent Advances in Cognitive Sociolinguistics*. Berlin/New York: Mouton de Gruyter, 191-221.
- Colleman, Timothy and Bernard De Clerck (2008). "Accounting for ditransitives with *envy* and *forgive*." *Functions of Language* 15, 187-215.
- Colleman, Timothy and Bernard De Clerck (2011). "Constructional semantics on the move: A diachronic view on the semantics of the double object construction." *Cognitive Linguistics* 22, 183-210.
- Croft, William (2003). "Lexical rules versus constructions: A false dichotomy." Hubert Cuyckens, Thomas Berg, René Dirven and Klaus-Uwe Panther, eds. *Motivation in Language: Studies in honour of Günter Radden*. Amsterdam/Philadelphia: John Benjamins, 49-68.
- De Clerck, Bernard and Timothy Coleman (2009). "Latinate verbs and restrictions on the dative/benefactive alternation: Further pieces to the puzzle." Paper presented at the 30th ICAME conference, Lancaster University, 27-31/05/2009.
- De Smet, Hendrik (2005). "A corpus of Late Modern English." *ICAME-Journal* 29, 69-82.
- Fried, Mirjam (2009). "Construction Grammar as a tool for diachronic analysis." *Constructions and Frames* 1, 261-290.
- Geeraerts, Dirk (1997). *Diachronic prototype semantics: A contribution to historical lexicology*. Oxford: Clarendon Press.
- Geeraerts, Dirk (1998). "The semantic structure of the indirect object in Dutch." Willy van Langendonck and William Van Belle, eds. *The Dative. Volume II: Theoretical and Contrastive Studies*. Amsterdam/ Philadelphia: John Benjamins, 185-210.

- Goldberg, Adele E. (1995). *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Goldberg, Adele E. (2002). "Surface generalizations: An alternative to alternations." *Cognitive Linguistics* 13, 327-356.
- Goldberg, Adele E. (2011). "Corpus evidence of the viability of statistical preemption." *Cognitive Linguistics* 22, 131-153.
- Green, Georgia M. (1974). *Semantics and syntactic regularity*. Bloomington: Indiana University Press.
- Greule, Albrecht (1999). *Syntaktischer Verbwörterbuch zu den althochdeutschen Texten des 9. Jahrhunderts*. Frankfurt: Peter Lang.
- Greule, Albrecht and Christian Braun (2010). "Stand und Aufgaben der historischen Valenzforschung." *Jahrbuch für Germanistische Sprachgeschichte* 2010, 64-75.
- Grondelaers, Stefan, Dirk Speelman and Dirk Geeraerts. (2007). "Lexical Variation and Change." Dirk Geeraerts and Hubert Cuyckens, eds. *The Oxford Handbook of Cognitive Linguistics*. Oxford: Oxford University Press, 988-1011.
- Habermann, Mechthild. (2007). "Aspects of a diachronic valency syntax of German." Thomas Herbst and Katrin Götz-Votteler, eds. *Valency. Theoretical, Descriptive and Cognitive Issues*. Berlin/New York: Mouton de Gruyter, 85-100.
- Haeseryn, Walter, Kirsten Romijn, Guido Geerts, Jaap de Rooij and M.C. van den Toorn (1997). *Algemene Nederlandse Spraakkunst* [General Dutch Grammar]. Second, revised edition. Groningen: Martinus Nijhoff / Deurne: Wolters Plantyn.
- Hare, Mary, Ken McRae and Jeffrey Elman (2004). "Admitting that admitting verb sense into corpus analyses makes sense." *Language and Cognitive Processes* 19, 181-224.
- Harley, Heidi (2007). "The bipartite structure of verbs cross-linguistically, or Why Mary can't exhibit John her paintings." Presentation at the 2007 ABRALIN Congress in Belo Horizonte, Brazil, March 2007. Downloadable from <http://ling.auf.net/lingBuzz/000435> (last accessed 21/10/2011)
- Haspelmath, Martin and Thomas Müller-Bardey (2001). "Valency change." Geert Booij, Christian Lehmann and Joachim Mugdan, eds. *Morphology: A Handbook on Inflection and Word Formation*. Vol. 2. Berlin/New York: Mouton de Gruyter, 1130-1145.
- Heringer, Hans Jürgen (2006). "Prinzipien des Valenzwandels". Vilmos Ágel et al., eds. *Dependency and Valency*. Vol. 2, Berlin/New York: Mouton de Gruyter, 1447-1461.
- Hilpert, Martin (2008). *Germanic Future Constructions: A Usage-based Approach to Language Change*. Amsterdam/Philadelphia: John Benjamins.
- Israel, Michael (1996). "The Way constructions grow." Adele E. Goldberg, ed. *Conceptual structure, discourse and language*. Stanford: CSLI Publications, 217-230.
- Jespersen, Otto (1927). *A Modern English Grammar, on Historical Principles. Part III. Syntax, Second Volume*. London: George Allen & Unwin Ltd / Copenhagen: Ejnar Munksgaard.
- Kay, Paul (2005). "Argument structure constructions and the argument-adjunct distinction." Mirjam Fried and Hans Boas, eds. *Grammatical Constructions: Back to the Roots*. Amsterdam/Philadelphia: John Benjamins, 71-98.
- Korhonen, Jarmo (2006). "Valenzwandel am Beispiel des Deutschen." Vilmos Ágel et al., eds. *Dependency and Valency*. Vol. 2, Berlin/New York: Mouton de Gruyter, 1462-1474.
- Levin, Beth (1993). *English verb classes and alternations: A preliminary investigation*. Chicago: University of Chicago Press.
- Lombardi, Linda and Mary C. Potter (1992). "The regeneration of syntax in short-term memory." *Journal of Memory and Language* 31, 713-733.
- Maxwell, Hugh (1982). *Valenzgrammatik mittelhochdeutscher Verben*. Frankfurt: Peter Lang.

- Noël, Dirk and Timothy Coleman (2010). "ACI verbs and NCI verbs in English and Dutch. A contrastive diachronic construction grammatical investigation." *International Journal of Corpus Linguistics* 15, 157-182.
- Oehrle, Richard (1976). *The grammatical status of the English dative alternation*. Ph.D. dissertation, Massachusetts Institute of Technology.
- Pesetsky, David (1995). *Zero Syntax: Experiencers and Cascades*. Cambridge, MA: The MIT Press.
- Pinker, Steven (1989). *Learnability and cognition: The acquisition of argument structure*. Cambridge, Mass.: The MIT Press.
- Randall, Janet (1992). "The catapult hypothesis: An approach to unlearning." Jürgen Weissenborn, Helen Goodluck and Thomas Roeper, eds. *Theoretical issues in language acquisition: Continuity and change in development*. Hillsdale: Lawrence Erlbaum, 93-138.
- Rohdenburg, Günter (1995). "Betrachtungen zum Auf- und Abstieg einiger präpositionaler Konstruktionen im Englischen." *NOWELE* 26, 67-124.
- Rohdenburg, Günter. (2009). "Nominal Complements". Günter Rohdenburg and Julia Schlüter, eds. *One language, two grammars? Differences between British and American English*. Cambridge: Cambridge University Press, 194-211.
- Roland, Douglas and Dan Jurafsky (2002). "Verb sense and verb subcategorization probabilities." Paola Merlo and Suzanne Stevenson, eds. *The Lexical Basis of Sentence Processing: Formal, Computational, and Experimental Issues*. Amsterdam/Philadelphia: John Benjamins, 325-345.
- Smailagić, Vedad (2010). "Valenzänderung." *Deutsche Sprache* 01/2009, 83-94.
- Stefanowitsch, Anatol (2006). "Negative evidence and the raw frequency fallacy." *Corpus Linguistics and Linguistic Theory* 2, 61-77.
- Stefanowitsch, Anatol (2011). "Constructional preemption by contextual mismatch: A corpus-linguistic investigation." *Cognitive Linguistics* 22, 107-129.
- Traugott, Elizabeth Closs (2008a). "Grammaticalization, constructions and the incremental development of language: Suggestions from the development of degree modifiers in English." Regine Eckardt, Gerhard Jäger and Tonjes Veenstra, eds. *Variation, Selection, Development--Probing the Evolutionary Model of Language Change*. Berlin/New York: Mouton de Gruyter, 219-250.
- Traugott, Elizabeth Closs (2008b). "The grammaticalization of NP of NP constructions." Alexander Bergs and G. Diewald, eds. *Constructions and Language Change*. Berlin/New York: Mouton de Gruyter, 21-43.
- Trousdale, Graeme (2008). "Words and constructions in grammaticalization: the end of the English impersonal construction." Susan Fitzmaurice and Donka Minkova, eds. *Studies in the History of the English Language IV: Empirical and Analytical Advances in the Study of English Language Change*. Berlin/New York: Mouton de Gruyter, 301-326.
- Trousdale, Graeme (2010). "Issues in constructional approaches to grammaticalization." Katherina Stathi, Elke Gehweiler and Ekkehard König, eds. *Grammaticalization: current views and issues*. Amsterdam/Philadelphia: John Benjamins, 51-71.
- Trueswell, John C. and Albert E. Kim (1998). "How to prune a garden path by nipping it in the bud: Fast priming of verb argument structure." *Journal of Memory and Language* 39, 101-132.
- VALBU = Helmut Schumacher, Jacqueline Kubczak, Renate Schmidt and Vera de Ruiter (2004). *Valenzwörterbuch deutscher Verben*. Tübingen: Gunter Narr.
- Van Belle, William and Willy van Langendonck (1996). "The indirect object in Dutch." William van Belle and Willy van Langendonck, eds. *The Dative. Volume 1: Descriptive studies*. Amsterdam/Philadelphia: John Benjamins, 217-250.

- Van Bree, Cornelis (1981). *Hebben-constructies en datiefconstructies binnen het Nederlandse taalgebied. Een taalgeografisch onderzoek*. Ph.D. dissertation, Leiden University.
- VDE = Thomas Herbst, David Heath, Ian F. Roe and Dieter Gotz (2004). *A Valency Dictionary of English*. Berlin/New York: Mouton de Gruyter.
- Verhagen, Arie (2002). "From parts to wholes and back again." *Cognitive Linguistics* 13, 403-439.
- Visser, Ferdinand Th. (1963). *An historical syntax of the English language. Part 1: Syntactical units with one verb*. Leiden: E.J. Brill.
- Wilson, Michael and Susan Garnsey (2008). "Making simple sentences hard: Verb bias effects in simple direct object sentences." *Journal of Memory and Language* 60, 368-392.