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The (Un)Reality of the Perfect Infinitive, Reconsidered from a Constructional Perspective

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Abstract
Due to great diachronic as well as synchronic variation and change, the perfect aspect has been studied to a great extent. In English, its infinitival form (*have* + past participle) has been largely neglected, however. This paper therefore seeks to explore 'non-core' grammatical constructions of the type V_{past} + *perfect infinitive*, especially their function and use in BNC, COCA and COHA. It challenges previous explanatory attempts by arguing that the perfect infinitive in the environments discussed does not indicate counterfactuality, as commonly believed. Instead, by taking a constructional perspective, the use of the perfect infinitive is argued to be a case of anteriority agreement, whereby speakers feel the urge to place the proposition on the same temporal level as the matrix verb. The findings of the corpus-based study further suggest that perfect infinitive constructions are in decline and might be in the process of disappearing from English altogether. Thus, this article attempts to extend the discussion of the perfect aspect to one of its non-finite forms but at the same time provides further implications for explaining recent change of the perfect aspect in general.

Key words - Infinitival perfect; *be to*; constructions; corpus

1. Preliminaries

Due to its considerable diachronic as well as synchronic (regional and dialectal) variation, the perfect has received much scholarly attention past and present (cf., for example, DAVYDOVA 2009, ELSNESS 1997). In his seminal diachronic study on the perfect and the preterite, ELSNESS (1997) found that the present perfect has undergone a considerable decline since the late 18th century and that this trend is much more advanced in the American than in the British variety of English. HUNDT and SMITH (2009) also observe a general, even though only slight, decline in both varieties; they cannot, however, confirm ELSNESS's (2009) findings of a narrowing gap between the use of the present perfect in British and American English but notice «relatively stable regional variation» (HUNDT and SMITH 2009: 48).

Against this background, it seems surprising that its infinitival form, which involves the perfect auxiliary *have* and a following past participle, has not been of much interest so far. BOWIE, WALLIS and AARTS (2013) also observed a decline in the usage of the perfect in general, but especially noticed a decreasing use of infinitival and past perfect forms in spoken British English. The infinitival perfect still occurs in a number of interesting structures, however, and therefore seems worth investigating.

In their recent account, BOWIE and AARTS (2011: 5) point towards two contexts in which the perfect infinitive occurs. On the one hand, it is used as a bare infinitive after

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modal verbs; on the other hand, it is used in *to*-infinitival constructions. MOLENCKI (1999: 91) further specifies these contexts and identifies six possible constructions where the perfect infinitive is found in Present-Day English:

I. after modals
II. in the complements of linking verbs (*pretend, seem, appear, happen* and copula *be*)
III. in the accusative with infinitive (ACI)
IV. in the nominative with infinitive (NCI)
V. as subject and subject complement
VI. as complement of some adjectives

Like all the other forms of the perfect, the perfect infinitive is usually used to express anteriority or perfectivity. This means that it indicates an event in the past of a certain reference point, which can be in the present or the past, or even in the future (BOWIE and AARTS 2011: 2; ELSNESS 1997: 18). Even though this is the predominant function of the perfect infinitive, language and its speakers do not always conform to such abstract regularities. Therefore, we can find exceptional environments in which the perfect infinitive does not mark anteriority. Consider the following example:

(1) *The fire happened two doors down from where Luz Maria Aguilar-Bucio, 32, was shot and killed the night before Valentine's Day, when she* ***was to have been married****.* <COHA:2007:NEWS:SanFran>

Here, the anteriority interpretation of the perfect infinitive complement does not make much semantic sense. Given the fact that the governing verb *was to* is futurity-oriented, a posteriority interpretation of the perfect infinitive seems more likely.

As will be shown in Section 3, this construction type is very rare in Present-Day English, but the seemingly redundant use of perfect morphology is intriguing and leads us to ask about what is going on in sentences like (1). Where does the perfect infinitive come from? Does it have a certain function in sentences like (1)? If it does, what is it? Or is it merely redundant? Scholars (cf. DENISON 1998; MOLENCKI 1999, 2003; MUSTANOJA 1960; VISSER 1963-1967) have been of the opinion that the perfect infinitive marks counterfactuality of the proposition, but does the perfect infinitive really have this inherent meaning or is it semantically empty? Does, for instance, (2) have the same semantic interpretation as (1)?

(2) *The fire happened two doors down from where Luz Maria Aguilar-Bucio, 32, was shot and killed the night before Valentine's Day, when she* ***was to be*** *married.*

From the viewpoint of traditional and normative grammars, these constructions do not belong to the core elements within the English language system and are therefore pushed to the periphery and dismissed as being ‘wrong’ without further investigation. Those rare cases in which the perfect infinitive has been discussed act on the assumption that it is a marker of counterfactuality in the environments in question, without giving valid explanations, however. In this paper, I will not take up this lead, but argue that we are dealing with what GÖRLACH (1991:111) refers to as «hypercorrect marking of past» and that the counterfactuality of events roots in the past tense of the governing verbs.

A suitable approach for analysing this structure was found in Construction Grammar (cf. Croft and Cruse 2004; Goldberg 2006 for an overview). From this perspective, perfect infinitive constructions are form-meaning pairings in which form and meaning are not separated modules but integrated. While form comprises syntactic, morphological and phonological properties, meaning includes semantic, pragmatic and discourse-functional features. This means that the components of the perfect infinitive construction do not compositionally build up its semantic interpretation; rather, the construction as such has its own meaning. In other words, it is not possible to predict the meaning of the whole from its individual components. Moreover, Construction Grammar does not stick to describing the 'core' structures of grammar but aims at describing the full inventory of constructions of a language because especially non-core cases provide important insights into the entire structure of a language:

> If speakers use grammatical patterns that a speech community (through its normative grammars) does not readily embrace, then the combined facts that such patterns (a) are used, and (b) have not been (explicitly) taught, guarantee the importance of such structures in language; it is not an indication of their triviality. When we encounter forms that we have not been explicitly taught – not to mention expressions that speakers are warned (by prescriptive grammars) against using – we know that we are touching on something very basic, something that must be rooted in our cognitive behaviour independently of what others have attempted to impose on us. (Fried and Östman 2004:15-16)

Before continuing with the presentation of a corpus-based (*BNC*, *COCA*, *COHA*) quantitative analysis of perfect infinitive constructions in British and American English as well as a qualitative analysis, I will briefly sketch some theoretical issues, including the historical development of the construction, especially in regard to the perfect infinitive as a counterfactuality marker.

2. The perfect infinitive and counterfactuality

The notion that the perfect infinitive is used to express counterfactuality seems to stem from the study of very early examples of the construction. Therefore, a brief overview of the historical development of the perfect infinitive seems to be in order. The second part of this section then deals with Berezowski's (2004) more recent attempt at finding an answer to the question of the counterfactuality of the perfect infinitive.

2.1 The historical development of the structure

The earliest examples of *habban* ('have') + past participle (dating back to the Old English period) were used to express possession. *Habban* was not yet used as an auxiliary, but early pre-forms of what «were to become the perfect and passive infinitives do occur» (Mitchell 1985: 388). Consider the following examples (taken from Molencki 1999: 92):

(3)	*Forðæm*	*wæs*	*swiðe*	*ryhtlice*	*beboden*	*Ezechiele*	*ðæm*
	Therefore	be-PST.3SG	very	rightly	command.PTCP	Ezekiel	the
	witgan	*ðæt*	*he*	*scolde*	*ðone*	*God-es*	*alter*
	prophet	that	3SG	should	the	God-GEN	altar

habb-an *uppan* *aholodne*
have-INF on hollow.PTCP
Gregory *Pastoral Care (CP)* 217.19 (c590)
'Therefore the prophet Ezekiel was very rightly commanded to have God's altar hollow above' (translation by Henry Sweet)

(4) *þa he ðæs casere-s mycclan hreowsunge geseah...*
When 3SG the emperor-GEN great grief see-PST.3SG…
he ... hine þa na lenge ahwænedne habb-an nolde
3SG … him then nolonger afflict.PTCP have-INF would not
Ælfric *Lives of Saints* (ÆLS) 510. 400 (c996/997)
'When he saw the emperor's great grief, he would no longer keep him afflicted'

The first instances of perfect forms are then found in the Middle English period. At the same time, but especially between 1350-1400, more complex perfect forms such as passive present perfect and the first perfect infinitive constructions emerged (ELSNESS 1997: 266). The early examples of perfect infinitives occur together with modal verbs, very often as the complement of *mihte* ('might'). The development of the perfect infinitive is assumed to have been a consequence of the loss of preterite morphology, a «natural therapeutic development» (MOLENCKI 1999: 94) so to speak. When the modal verbs *wolde*, *mihte*, *sceolde* and *ahte*, which functioned as past tense forms originally, were already used for present tense purposes, Old English needed new options to refer to past time events. The auxiliary *have* was then added to the dependent verb to compensate for the no-longer-used past forms of the modals. The following Middle English examples (taken from MOLENCKI 1999: 94) illustrate early instances of perfect infinitives in contexts where they are already assumed to mark counterfactuality, cf. (5) and (6), as well as past time reference, cf. (7).

(5) *Ich mihte habbe bet i-don, hefde ich þen i-selðe*
1SG might have.1SG better do.PST.PTCP have.SBJV 1SG the good sense
Poema Morale 13 a1200 (c1150)
'I might have done better if I had had the good sense'

(6) *Mo ðanne fif ðusende besantes of gode þohtes, and of gode*
More than five thousand coins of good thoughts and of good
wordes, and of gode woerkes, ðu mihte-st habb-en biȝeten,
words and of good deeds you might-2SG have-INF own.PST.PTCP
ȝif ðu wold-est
if 2SG want-2SG.SBJV *Vices&Virtues* 1 17 c1225 (c1200)
'If you had wanted, you might have owned more than five thousand talents of good thoughts, good words and of good deeds'

(7) *wep-ð and wone-ð ðat he æure was to manne*
cry-3SG and lament-3SG that 3SG your be.PST.3SG to man
iscapen, ðat he scolde swa michel habb-en misdon
create.PST.PTCP that 3SG should so greatly have-INF fail.PST.PTCP
aȝean his sceppend, for hwat he ofearne-ð helle pine
against his creator for what 3SG fear-3SG torments of hell
Vices&Virtues 1 63 c1225 (c1200)

> ‘He cries and laments that he was created to be your man, that he should have failed against his creator so greatly, which is why he fears the torments of hell’

In the late Middle English period, the perfect infinitive became increasingly common with verbs of will, intention, purpose, expectation, fear or hope in their past tense forms and similar to the aforementioned modal constructions, where the perfect infinitive is also argued to serve as an indicator for the non-fulfilment of the intention (cf. MOLENCKI 1999: 97).

In many cases, however, the perfect infinitive construction is accompanied and supported by a clause introduced by the adversative conjunction *but*, which explicitly indicates that the intended event did not take place. Regarding the alternative use of the present infinitive in constructions like these, MOLENCKI (1999: 100) argues that «the perfect infinitive was preferred when one wished to express an unfulfilled plan, whereas the simple infinitive usually referred to facts».

The other uses listed in Section 1 emerged from about 1500 onwards. These are the ones undoubtedly expressing anteriority or perfectivity and are still commonly used and found in Present-Day English (cf. MOLENCKI 1999: 107-116 for a more detailed description).

Even though scholars such as MOLENCKI provide a number of examples of what they analyse as counterfactual uses of the perfect infinitive, no explanations for why they come to this conclusion are provided.

2.2 Berezowski’s approach to counterfactuality

BEREZOWSKI (2004) seems to have been the first one to address the question about *What’s Unreal About the Perfect Infinitive* and to leave the boundaries of syntax and semantics behind in order to find his explanation within pragmatics. The main argument of this approach is that utterances using constructions of a past tense form of *to be* + a perfect infinitive violate the Gricean maxim of quantity by not giving any further information about whether a certain plan, schedule and arrangement, indicated by the past of *to be*, was actually realized. Thus, an interactant would expect to get at least some information about the further progress of such arrangements, but Berezowski argues that nothing of the kind is hinted at and that therefore Grice’s maxim is violated. The hearer would then be left to make a guess about the non-actualization of the event:

> In Grice’s terms it is obviously not informative enough and flouts the maxim of quantity but, at the same time, it gives the hearer some food for thought on how to reconcile this fact with the assumption that speakers are cooperative. An easy way out of this predicament is drawing the implicature that no progress in materializing the event is reported because the event simply failed to materialize at all and is now indirectly reported as counterfactual. (BEREZOWSKI 2004: 96-97)

However, BEREZOWSKI also notes that the constructions in question are frequently followed by an explicit statement providing information about the non-actualization of the plans, arrangements, etc. While for BEREZOWSKI this is yet another confirmation – not at all a reason – for the implicature of counterfactuality that stems from the grammatical structure, this last point challenges his own line of argumentation. By saying that most perfect infinitive constructions are followed by an explicit statement about the non-actuality of an event, he contradicts his own statement about the violation of the Gricean maxim of quantity, as these statements give all the required information.

Thus, we are again left without a satisfactory explanation. The purpose of the remainder of this paper will therefore be to provide an alternative account, starting off with the presentation of the results from the corpus search.

3. Quantitative analysis

3.1 Corpora used

As this corpus-based study was carried through against the background of the assumption that the perfect infinitive constructions in question are not very frequently used, I chose three fairly large, but also publicly available, corpora for data collection: the *British National Corpus* (*BNC*), the *Corpus of Contemporary American English* (*COCA*) and the *Corpus of Historical American English* (*COHA*).

BNC is a monolingual (British English, henceforth BrE), synchronic corpus of approximately 100 million words with language material collected from 1970 to 1993. It is also a general corpus, which means that it includes both spoken (ca. 10%) and written (ca. 90%) texts and is not restricted to any specific text type, topic, field, variety, style or register, but includes language data from newspapers, magazines, academic and non-academic texts, letters, essays as well as conversations from formal and informal contexts (http://www.natcorp.ox.ac.uk/corpus/index.xml; http://corpus.byu.edu/bnc/).

COCA is a monolingual American English (henceforth AmE) corpus of about 450 million words, more than four times as big as *BNC*. As with the *BNC*, the *COCA*'s focus lies on written texts, but here the genres are evenly distributed into about 20% for each (including the spoken, fiction, newspapers, academic, popular magazines sub-genres). This corpus is updated once or twice annually and comprises data from 1990 to 2012 – about 20 million words per year (the most recent data in the version used for this study was added in June 2012) (http://corpus.byu.edu/coca/).

COHA, the third corpus used for this study, is a 400 million word corpus of historical American English and was chosen to add a diachronic dimension to the argumentation. It contains language data from 1810 to 2009 and – due to its size – is a valuable tool for studying rare phenomena from a diachronic perspective (cf. LEVIN and LINDQUIST 2013: 9). The greatest part of words comes from fictional texts (about 200 million), followed by texts from popular magazines (about 97 million), non-fiction texts (about 61 million) and newspapers (about 40 million). This corpus is not balanced by number of words across decades, but it is balanced by genres across decades. This means that the same percentages of fiction, non-fiction, etc. per decade are included in the corpus (http://corpus.bu.edu/coha/).

Of course it has to be kept in mind that the different corpus sizes and compositions aggravate drawing comparisons between British and American English, between spoken and written language as well as between the use of the construction in the 19th, 20th and 21st centuries. Therefore, all data are normalized to tokens per million words in order to have some comparative value. Especially because of their size, these corpora still seem to be a legitimate choice for the present purpose. As it was expected beforehand that this type of perfect infinitive construction does not occur very frequently, it seemed a reasonable decision to use these large corpora in order to get a language sample which is large enough to draw at least some conclusions.

Table 1.Corpus composition of *BNC*, *COCA* and *COHA*, numbers in millions of words.

Genre	BNC	COCA	COHA
Spoken	10	95,4	-
Fiction	17	90,3	207,6
Popular magazines	16	95,6	97,2
Newspaper	11	91,7	40,1
Academic	16	91	-
Other	30		61,2
Total	**100**	**464**	**406,1**

The design of the search interfaces provided for the corpora by Mark Davis via http://corpus.byu.edu enabled a targeted search for perfect infinitive constructions. For a basic overview on what verbs occur with a perfect infinitive complement, a sequence of commands was entered, namely the POS tag 'verb.ED' (for any past tense verb) + *to have* + the POS tag 'verb.EN' (for any past participle). The results were then examined, sorted and irrelevant examples eventually excluded.

3.2 Data

3.2.1 Frequency trends. The preliminary search for verbs that occur with a perfect infinitive complement produced a wide range of perfect infinitive constructions. Only a rather small number of verbs seems to occur in the construction I am concerned with in this study, however – *intend to, mean to, expect to, be to, be able to, manage to* and *hope*; other verbs like *remember, regret, deny, believe, seem, appear*, etc. also take perfect infinitive complements, but represent another construction type and have to be distinguished from the others.

With the exception of constructions using past tense forms of *be to* as their governing verb, the verbs occur in very low frequencies with a perfect infinitive. This suggests that they are no longer really productive in Present-Day English. Even though constructions with past tense forms of '*be to* + perfect infinitive' are infrequent in Present-Day English, they seem to occur frequently in comparison to others and are therefore going to be the focus of the subsequent analysis.

When searching for the construction in the corpora, the results at first also contained examples of the type illustrated in (8). On the formal level, the structure looks exactly like the one this paper is concerned with, but the two should not be mixed up. In (8), *was* functions as a copula verb, linking the subject, *she*, with its complement, *fortunate*.

(8) *Lisa looked suddenly foolish and almost at once she was aware of her appearance, her hair fallen over her shoulders, and her dress twisted on her body. She pulled at her waist, straightened, and she always ended the conversations with comments about how* ***fortunate she was to have been married*** *to two such men.*
<COCA:1993:NEWS:SanFranChron>

Altogether, the search produced 2187 hits for the specific construction under examination. 1506 of these (or 68,86%) were found in *COHA*, only 473 (21,53%) and 208 (9,51%) were found in *COCA* and *BNC*, respectively. These vast differences have to be accounted for by the different compositions of the corpora in terms of size and also distribution across time.

Table 2. Raw frequencies and instances per million words of *be to* + perfect infinitive in *BNC*, *COCA* and *COHA*.

	n	%	pmw
BNC	208	9,51	3,71
COCA	473	21,63	1,02
COHA	1506	68,86	2,14
Total	2187	100	

When looking at the frequencies per million words (pmw), the picture looks slightly different. Even though we are now confirmed that even this construction is very infrequent, it suggests that with 3,71 instances per million words in *BNC*, '*be to* + perfect infinitive' is still more frequent in Present-Day British English than in Present-Day American English, where the corpus shows a frequency of only 1,02 instances pmw and which also suggests that the development of the decline has progressed further in AmE than in BrE.

As already mentioned, the matrix verb of the construction is usually a past tense form of *be to*; both singular and plural are possible. Also, both singular and plural are mostly third person forms. First person uses are also possible, but occur only very rarely. Many of the original search results with the plural past tense form *were* turned out to actually be singular and plural subjunctive forms in conditional clauses, cf. (9) and (10). Even though they raise some interesting questions regarding the sequence of tenses and counterfactuality issues themselves, they could not be considered and were excluded from the sample.

(9) *Mr-GARCIA: (Voiceover) We took advantage of the situation. As soon as we heard them say they were going to leave, we shut the place down.* ***If we were to have left this open*** *-- even for one night -- I'm sure that tomorrow we would have found, you know, people in here again.* <COCA:1992:SPOK:CBS_Street>

(10) *What I found particularly interesting is that all of us mentioned at some point how we had to read the book. I had to have quiet. I couldn't have any distractions. And it would seem to me that* ***if I were to have read*** *this book with a teenage child of mine that I would have to put some protocol around it. It requires more than just the quick read that a teenager might give it.* <COCA:2002:NEWS:Chicago>

What is interesting is that a fairly large proportion of the examples of the construction is found in relative clauses which are mostly introduced by one of the relative pronouns but are occasionally also found with a 'zero' relative pronoun, cf. (11)-(13). A type of relative clause which seems to favour the use of perfect infinitives, especially in *COCA* and *COHA*, is illustrated in (14). Here, *what* functions as reference noun and relative pronoun at the same time.

The results also show that there is a slight difference in the use of perfect infinitive constructions in *BNC* and *COCA*. While as many as 37,5% of the examples from the former are to be found in relative clauses, about a third, 29,6%, of the examples from the latter occur in a relative clause. Regarding the data from *COHA*, 35,3% can be found in relative clauses and seem to be distributed fairly equally across decades and centuries. The mere one example from the spoken part of *BNC* and only 17 occurrences in the spoken part of *COCA* further suggest that the use of perfect infinitive in relative clauses is a feature of more complex sentence structures and thus of written language and is very rare in spontaneous discourse as well as in spoken news texts.

(11) *The eight-kilometre Somport tunnel,* ***which was to have received*** *funds from the EC, would have cut driving times between France and Spain* <BNC:J3C:W_misc>

(12) *Bower lifted the one-game suspension of DB John Eubanks,* ***who was to have missed*** *the Tulane game.* <COCA:2005:NEWS:Houston>

(13) *the Lords seem determined to take away from him unanimously the precedency* ***he was to have obtained****.* <COHA:1855:NF:LiteraryLifeCorrespondence>

(14) *Jack had interrupted him to say that the Morland print was one that he had brought from his father's house, and that the the ice at 2 p.m for the NHL All-Star Game, capping what* ***was to have been*** *a weeklong celebration of the sport here.* <COCA:2005:NEWS:Atlanta>

Another frequency trend can be detected for the complementation patterns of perfect infinitive constructions. At first glance, it seems striking that more than half of the complements are perfect infinitives of the verb *be*. A closer analysis of the examples shows, however, that again about half of these are actually passive perfect infinitives. Thus, in each of the three corpora, about a quarter of the perfect infinitive complements of *be to* are passive. Interestingly, a frequently recurring complement, especially in *COHA*, is the perfect infinitive passive of *marry*, i.e. *have been married* (cf. (18)).

(15) *This material* ***was to have been obtained*** *from files returned to the police after the completion of the case* <BNC:FBJ: W_ac_polit_law_edu>

(16) *The last statewide Field Poll in February 2006, the month Morales* ***was to have been executed****, found that 63 percent favored keeping the death penalty, 32 percent ancients, for chief among the multitude of idols and symbols was the god Apis, represented by the bull.* <COCA:2009:NEWS:SanFranChron>

(17) *General Harrison subsequently understood , that in case he had fallen into Proctor's hands, he* ***was to have been delivered*** *to Tecumseh, to be treated as that warrior might think proper* <COHA:1841:NF:LifeTecumsehHis>

(18) *The quiet of Sunday in this city was broken by the reported suicide of Miss Lizzie G. Baldwin, of No. 241 East Frontstreet. She was a pretty young woman of 24, and* ***was to have been married*** *during the coming spring.* <COHA:1886:NEWS:NYT-Reg>

The seemingly redundant form of the construction brings about the assumption that it is a feature of spoken and informal language. Five hits in the spoken part of the *BNC* and 163 examples from the spoken part of the *COCA* unfortunately do not confirm this hypothesis. The pmw frequencies of 0,48 and 1,71 in *BNC* and *COCA* respectively suggest, however, that perfect infinitive constructions are used more frequently in spoken AmE than in spoken BrE. A comparison with the results for written texts suggests that in *BNC*, the construction is mostly confined to written language (203 occurrences/2,33 instances pmw), while the situation is the opposite for the results from

COCA (310 occurrences/0,85 instances pmw in written language). It should be noted, however, that these results do not completely dismiss the idea that perfect infinitives are a feature of informal language. The spoken parts of *BNC* and *COCA* do not necessarily represent colloquial, informal language. While the former comprises of conversations and debates, the latter mainly makes use of extracts from TV broadcasts, but no examples from spontaneous speech. Still, LEECH et al. (2009: 108) suspect that the decline of *be to* might have progressed because of its «association with a somewhat 'stuffy' and more formal style», which of course raises the issue of colloquialization[1] as a force in language change and which would countervail the hypothesis of the construction being used in more informal language.

Table 3. Raw frequencies, percentage of total and instances pmw of results from the spoken parts of *BNC* and *COCA*.

Spoken	N	% of total	pmw
BNC	5	2,4	0,48
COCA	163	34,5	1,71

Table 4. Raw frequencies, percentage of total and instances pmw of results from the written parts of *BNC* and *COCA*.

Written	N	% of total	pmw
BNC	203	97,4	2,33
COCA	310	65,5	0,85

Unfortunately, these frequency trends are merely observations on the surface level of the construction and not very revealing. Therefore, it is probably more insightful to have a look at the historical development of the construction as suggested by the data from *BNC*, *COCA* and especially *COHA*.

3.2.2 The decline of the perfect infinitive constructions. According to BRUNNER (1962: 348), perfect infinitive constructions are no longer productive «im guten literarischen Englisch»[2], except for cases where it is not possible to mark the governing verb for past tense, i.e. with modals (e.g. *he must have known it*) and semi-modals (e.g. *you ought to have done it*). In all the other cases, speakers of Present-Day English prefer to mark past tense at the governing verb. Thus, he claims that *I should have been glad to go* is preferred to *I should be glad to have gone* and *I had meant to write you a letter* is preferred to *I meant to have written you a letter*.

The above presentation of the results of the corpus search shows that the construction type still occurs in actual language use – even though very infrequently. Nevertheless, the results also reflect the major decrease in use it has undergone. In their study based on the *Diachronic Corpus of Present-Day Spoken English* (*DCPSE*), BOWIE and AARTS (2011) found that the use of the perfect infinitive, concurring with the downward trend of the perfect aspect in general, faces a considerable decline. Their comparison between BrE and AmE suggests that AmE is the driving force for this decline. The study also shows that most perfect infinitives (88% of all examples) occur as the complements of modal auxiliaries. As other studies (e.g. LEECH 2003) have confirmed, the modal auxiliaries themselves are affected by a decline in frequency, which gives rise to the assumption that the decreasing use of the perfect infinitive is a consequence of this development (Bowie and Aarts 2011: 6), even though the decline of the perfect infinitive in contexts requiring a *to*-infinitive is much more significant.

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[1] LEECH ET AL. (2009: 108) observe that especially in news reporting, *be to* has given way to the longer and less economical, but apparently also less formal *be going to* when referring to the future.

[2] 'in good, literary English' [my translation, ES]

Regarding the present study, the majority of examples of the perfect infinitive construction was found in *COHA* and came from texts originally published in the 19th or early 20th century. Their decline can, at least to some extent, be attributed to the influence of language pre- and proscriptivists in the 18th and 19th century (Molencki 1999: 105), who tried to ban them from the English language altogether. Visser (1963-1967: 2421, my emphasis) presents a number of prescriptive grammarians' exclusively negative opinions on the use of the perfect infinitive:

> 'Last week I intended to have written' is a very common phrase; the infinitive being in the past time, as well as the verb which it follows. But it is evidently wrong; for how long soever it now is since I thought of writing, 'to write' was then present to me. (Murray 1805: 277)
>
> It is now commonly asserted that such expressions as "I hoped *to have seen* him yesterday" are ungrammatical.' (Abbott 1871: 259)
>
> But the most common error [sc. In the use of the 'tenses'] is, the using of the verb *to have* with the passive participle, when the *past time*, simply, or the *infinitive*, of the verb ought to be used. "Mr. Speaker, I *expected*, from the former language, and positive promises, of the Noble Lord and the Right Honourable the Chancellor of the Exchequer, *to have seen* the Bank paying in gold and silver." This is House-of-Commons language. Avoid it as you would avoid all the rest of their doings. I expected *to see*, to be sure, and not *have seen*, because the *have seen* carries *your act of seeing back beyond the period*, within which it is supposed *to have been expected to take place*. (Cobbet 1831: §259)

As far as one can tell from the results from *COHA*, this construction must have been most frequent throughout the past two centuries. It seems to have been rather rare in the early 19th century and hit a climax about a hundred years later, around 1920. Figure 1 also shows a continuous reduction of the construction afterwards – up to the present – and thereby confirms Bowie and Aarts' (2011) more general observation.

Further evidence comes from results obtained by Nesselhauf (2006), where she compares the structure in BrE and AmE by using *ARCHER* (*A Representative Corpus of Historical English Registers*) and finds that the construction is undergoing a similar decline in BrE as in AmE (Nesselhauf 2006: 520-522).

Nesselhauf (2006) as well as Leech (2003) have found that the development of *be to* is consistent with the development of modal verbs, i.e. that it is in decline. Both studies also show that the development is more advanced in AmE. Leech (2003: 229) survey found that while the use of *be to* in general decreased by 17,2% in BrE, its decrease in AmE was as drastic as 40,1%. Nesselhauf's data suggests that «the number of occurrences of *be to* in American English is about half of those in British English» (2006: 518) and might even be about to disappear.

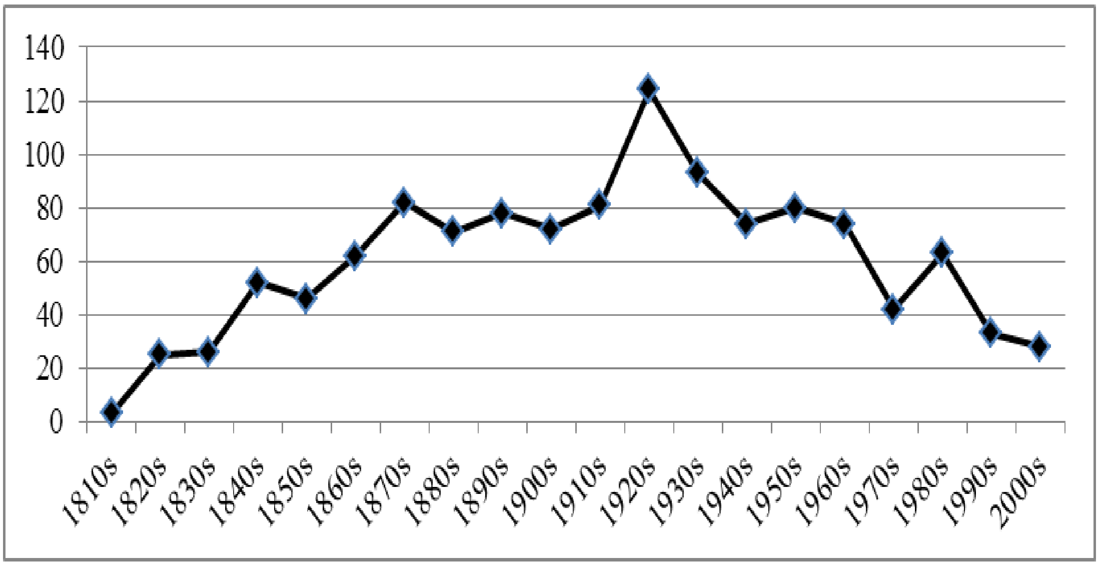

Figure 1. Development of the perfect infinitive construction in COHA 1810s-2000.

Thus, it is difficult to find a clear answer regarding the question whether the decline of the '*be to* + perfect infinitive' construction is due to the reduced use of *be to* or of the perfect infinitive. It is very likely that both influence the general development of the construction and given that speakers continue to use it less and less frequently, it really might be in the process of disappearing from the surface. This is confirmed by taking a closer look at the data in *COCA* (cf. Figure 2). The developments in increments of ten years show that at least in AmE, the construction seems to be on its way out. While there are still 31 occurrences in the sample from 1990 (1,51 pmw), there are only two occurrences in the data from 2012 (0,18 pmw)[3].

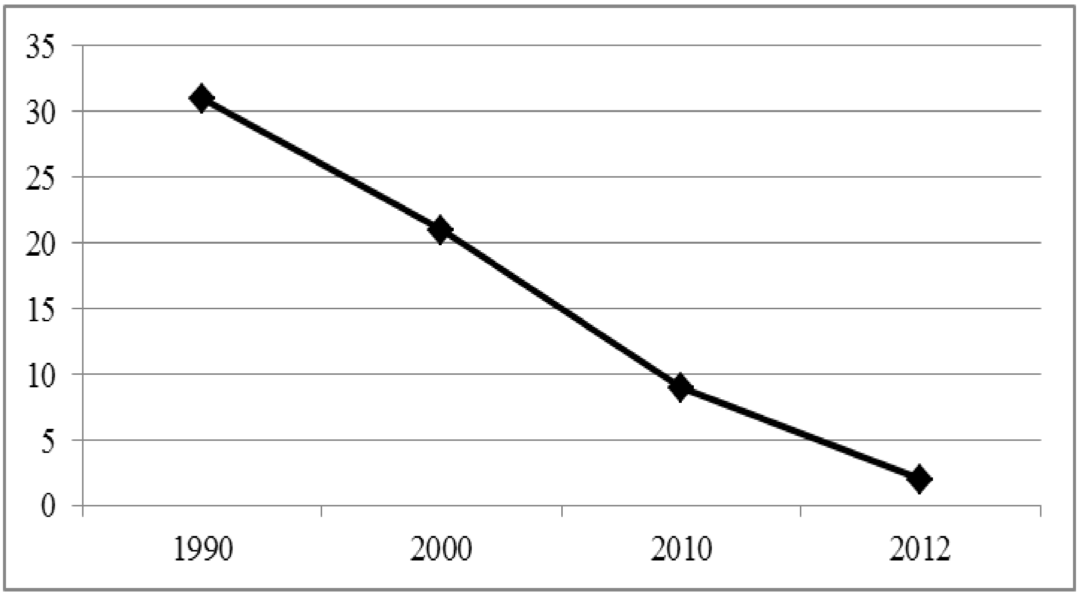

Figure 2. Decline of perfect infinitive constructions in COCA 1990-2012.

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[3] Of course it has to be noted that the COCA version used in this paper had only been updated once in 2012 and therefore included only half as many words as samples from other years. The probability that the number of results for the second half of 2012 would change the results dramatically is very low, however.

4. Qualitative analysis

4.1 General observations and evidence for constructionality

Constructions have certain unique semantic as well as morphosyntactic properties which allow us to differentiate them from other (structurally similar) patterns. For the present purpose, it is especially important to differentiate relevant examples from those where *be* functions as a copula verb and the perfect infinitive marks anteriority relations, cf. (8) above.

First, and most obviously, the verb governing the construction must allow for an infinitival complement. As already pointed out, this is the case with *be to*, but other verbs such as *intend to, mean to, manage to, be able to* and *expect* encourage – even though in only very rare cases – perfect infinitive complements, cf. (19)-(23). While these examples are very rare in the contemporary corpora *BNC* and *COCA*, examples with *intend to* and *mean to* are much more frequent in *COHA.*

(19) *I originally* ***intended to have figured*** *all the Psittacidae – but I stopped in time* <BNC:HRB:W_biography>

(20) *I* ***meant to have written*** *another 'Wonder Book' this summer, but another task has unexpectedly intervened.* <COHA:1871:MAG:Atlantic>

(21) *I* ***expected to have been*** *here in time, but these trains are never to be depended on.* <COHA:1871:FIC:LucyRaymond>

(22) *I was bordering on death. My lungs were filled with seawater. I believe that if the waves had not calmed down before morning – a great spiritual gift, so Tony* ***was able to have increased*** *spiritual physical and mental strength – we might not have made it.* <COCA:2004:MAG:SatEvenPost>

(23) *Mandy told Nigel about this when she went to work, and he did a piece about the exploitation of raw emotion which he* ***managed to have syndicated*** *round a group of provincial papers and rewrote for one of his magazines.* <COCA:1990:FIC:Bk:stardust>

COHA also shows a high frequency of examples with perfect infinitives complementing *remember* and *regret*, but they are not to be confused with the constructions examined here either. In examples (24) and (25), the perfect infinitive clearly marks an event anterior to the event marked by the governing verb. As with the examples above, they occur only very infrequently in *BNC* and *COCA*. VOSBERG (2003: 198) makes a similar observation and assumes that the loss of the perfect infinitive functioning as a complement of retrospective verbs like *remember*, *recollect*, *recall*, *regret* or *forget* is due to processes in which the *–ing* form took over this complementation function. These observations are quite important evidence not only for the decline of the constructions dealt with in this paper, but also for the decline of the perfect infinitive in general.

(24) *I* ***remembered to have read*** *that the victims of vampires generally became vampires themselves.* <COHA:1888:FIC:DavidPoindexters>

(25) *A friend of mine, a writer in northern Italy, who was in the anti-Fascist underground since 1931, wrote soon after the liberation, asking about my wartime broadcasts to Italy, which he* ***regretted to have missed****.*
<COHA:1946:MAG:Time>

Secondly, and probably the most important characteristic of the perfect infinitive construction is that the governing verb is always in the past tense. For example, a present tense form of *be to* with a perfect infinitive complement would not work, unless, theoretically, it is followed by a temporal adverbial with the preposition *by* as its head, e.g. *I am to have been to the doctor's by 2 o'clock*. I could not find any occurrences of this kind in any of the three corpora used, however.

Thirdly, in the perfect infinitive construction, the governing verb can hardly ever be negated. Considering that they are very often followed by an adversative subordinating clause, the negation of the matrix verb would not make any semantic sense. The adversative clause is not a conditioning characteristic of perfect infinitive constructions, even though it is noticeable that it follows the construction in many cases (cf. a brief discussion in Section 5.1 below).

Another unique property of the construction would be that the perfect infinitive is usually interchangeable with the present infinitive without entailing an (obvious) change of meaning (cf. examples (1) and (2) above). This claim can be supported by looking at the '*remember* + perfect infinitive' constructions again. While the perfect infinitive in (26a) marks anteriority, i.e. the crossing of the path happened before the remembering, the collocation of *remembered* and the present infinitive *to cross* in (26b) means something like "did not forget" or "bore in mind to cross".

(26) a. *Friedrich tried to regain a path that he* ***remembered to have crossed*** *a few minutes before, but under the trees the gloom was too dense for profitable search.*
<COHA:1903:FIC:TarHeelBaron>
b. *Friedrich tried to regain a path that he* ***remembered to cross*** *a few minutes before, but under the trees the gloom was too dense for profitable search.*

4.2 The 'be to + perfect infinitive' construction

Construction grammar distinguishes between schematic and substantive constructions. Substantive constructions contain specific lexical items (such as an idiom), schematic constructions, on the other hand, are lexically open and not restricted to any lexical items; they can, however, also contain substantive and schematic elements at the same time.

The '*be to* + perfect infinitive' construction is an instance of a more schematic 'V_{past} + perfect infinitive' construction. Its head is the only substantive element. The lexical item *be to* can change, however, depending on person and number of the sentence subject.

According to the *Oxford English Dictionary*, *be* followed by an infinitive expresses «an appointed or arranged future action; (hence also) expressing necessity, obligation, duty, fitness, or appropriateness» (OED Online). Following PALMER (1990: 164-165), *is to*[4] shows, at least formally, great similarities to modal verbs and is often classified amongst «semi-» or «quasi-modals» (e.g. LEECH 2003; LEECH et al. 2009) or as a «modal idiom» (QUIRK et al. 1995: 143). While its present forms refer to planned or arranged events in the future, the past forms refer to planned events in the past which may or may not have taken place. The latter, however, strongly suggest that the planned event was not actually implemented, which is further supported by either explicit adversative clauses or other clues in the context pointing towards the non-actualisation of the plan.

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[4] The *be*-part of the form is consistent with the NICE properties of modal verbs, including not having a non-finite form. Because of this latter point, PALMER (1990) uses the finite form *is to* instead of the base

As can be seen in, for instance, (28)-(30), the whole construction is headed by the past tense forms of *be to,* which govern a non-finite verb phrase. The non-finite clause, in turn, is headed by a perfect infinitive, either active or passive, which is usually followed by its own complement. The head slot of the non-finite clause is not substantive; therefore, at least theoretically, the perfect infinitive of any verb can be inserted.

Turning to the semantic aspects of the construction, we can safely say that the perfect infinitive in isolation as well as in combination with a complement has anteriority meaning. As soon as the perfect infinitive complements a past tense verb, the situation looks different, however. There seems to be a contradiction between the anteriority meaning of the isolated perfect infinitive and the overall meaning of the '*be to* + perfect infinitive' construction, which is that of the event denoted by the perfect infinitive being posterior to the plan, arrangement or intention. As it would be illogical for an event to happen before it is even intended or planned, the use of the perfect infinitive with its anteriority meaning in the construction seems inconsistent. For better illustration, let us consider the following construct:

(27) *The MirrorGroup – controlled by Mr Maxwell's private companies –* ***was to have been floated*** *on the Stock Exchange next year. But that has now been put, lying carelessly upon the floor.* <BNC:AAU:W_newsp_brdsht_nat_report>

This construct inherits the '*be to* + perfect infinitive' construction. Since it is an actual language construct, it is fully specified. The past tense of *be to* is the verbal head, complemented by the perfect infinitive *have been floated*, which, in turn, is modified by *on the stock exchange* and *next year.*

In this construct, the perfect infinitive by itself denotes the event of a company being floated, which, according to the perfect infinitive's function, would be anterior to a certain reference point. In collocation with the past tense matrix verb, its meaning reverts to the opposite – now suggesting posteriority.

The semantic frame of the whole construct is given by the governing verb, including the temporal frame of past arrangement or intention. Following the usual function of the perfect infinitive, *have been floated* would express something taking place before it was even arranged for it to take place. While this structure works well on the formal level, it does not translate very well to the level of semantics as it would cause an illogical interpretation (cf. Figure 3).

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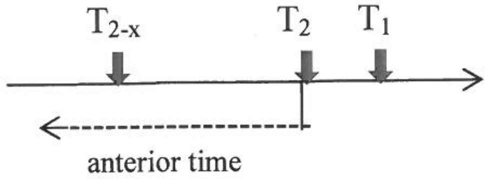
form *be to.* Semi-modals, however, differ from central modals in that they inflect for person and number (DEPRAETERE and REED 2006: 269).



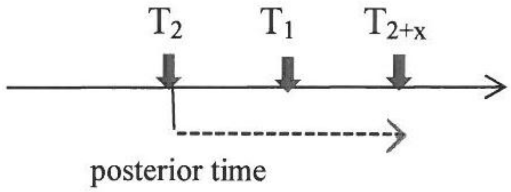
T_1 = moment of UTTERANCE

T_2 = past INTENTION

T_{2-x} = FLOAT-event

Figure 3. Illogical temporal relations in (27).

The semantics of the verb *be to* rather suggest that, even though it might be contradictory with its form, the perfect infinitive expresses posteriority, i.e. the floating event was arranged to take place at some point in time after the intention was formed, either before or even after the moment of utterance (cf. Figure 4).



T_1 = moment of UTTERANCE

T_2 = past INTENTION

T_{2+x} = FLOAT-event

Figure 4. Actual temporal relations in (27).

It should be kept in mind, however, that the intended event could not take place and probably will not. It has become impossible to implement the intention of floating the company on the stock exchange, as becomes evident from the subsequent sentence *But that has been put, […]*.

5. Discussion

5.1 Arguments against the counterfactuality hypothesis

Example (27) is obviously counterfactual. The traditional analysis would be that the perfect infinitive is the one element which contributes this meaning aspect, but clearly, the impossibility of putting the plan into action is on the one hand suggested by the context – namely the subsequent sentence, which is introduced by the adversative conjunction *but*; on the other hand, in the past tense of the verb *be to* itself, the non-actualisation of the intended event is already implied. In the following, both will be discussed in turn.

First of all, evidence against the counterfactuality hypothesis is provided by the following constructs, where the perfect infinitive occurs in the main clauses, which are then followed by an adversative subordinating clause. Thus, the counter-evidence provided by the *but*-clause is an obvious marker for irrealis in each of the constructs.

(28) *Mr Guerin* ***was to have been sentenced*** *yesterday* ***but*** *this has now been delayed by up to two months.* <BNC:AJ9:W_newsp_brdsht_nat_commerce>

(29) *The Senate* ***was to have voted*** *late this afternoon,* ***but*** *all day senator after senator agreed the delay would allow more time to examine the charges of sexual harassment brought by the Oklahoma law professor Anita Hill.*
<COCA:1991:SPOK:ABX_Jennings>

(30) *It* ***was to have been titled*** *The Heel of the Hunt,* ***but*** *some fool thought that all Americans both use and misunderstand Mickey Spillane vernacular.*
<COHA:1994:MAG:AmSpect>

To strengthen the case against the counterfactuality hypothesis, we ought to stress the role of context as evidence for the non-actualization of the proposition in cases where there is no adversative clause. Thus, in (31) the planned event did not actualize because the originally intended ward partner did not show up. Similarly, in (32) the *be to* + perfect infinitive construction occurs in the relative clause and we learn from the main clause that Gorbachev's signing the Union Treaty could not take place because he had to face severe opposition.

(31) *My lot came back from holiday yesterday. The chap who* ***was to have been*** *my ward partner hasn't come back.* <BNC:CK0: W_fict_prose>

(32) *The new Union Treaty that Gorbachev* ***was to have signed*** *Tuesday was opposed by hard-liners, who said it would effectively hobble the central government's power and transfer authority to the republics.* <COCA:1991:NEWS:AssocPress>

Repeatedly (especially in IATRIDOU 2000, also LARREYA 2003 and MCFADDEN and ALEXIADOU 2006), it has been pointed towards a special link between past tense morphology and the expression of irrealis, always stressing that they share the same morphological markers in many languages, based on the justification that the basic meaning of past tense markers is «something like 'distant from present reality'» (HOGEWEG 2009: 183). Thus, past tense morphology is not limited to expressing past semantics. It is actually a major feature of past tense morphology to denominate unreality or counterfactuality. This applies especially to modal verbs: all of them have past tense forms, but not all of them can actually express past tense, and some can only indicate past tense in certain contexts (DEPRAETERE and REED 2006: 269). The most telling argument against the counterfactuality hypothesis therefore seems to be the use of *be to* in its past tense form, which already implies that an intended or planned event was not actualized, i.e. did not take place. This claim can be supported by examples (28)-(32), where a counterfactual reading would actually be possible without the use of the perfect infinitive, an adversative clause or additional information given by the context.

I am inclined to argue that the perfect infinitive itself has never been a marker for counterfactuality. When *would*, *might*, *should* and *ought to* lost their ability to mark past tense, there was no other way to tense modal verbs and *have* adopted this function (cf. MOLENCKI 1999: 94). As PALMER (1990: 45) points out, «non-finite *have* functions as if it were a marker of the past as well as the perfect».

Against this background, the proposition that the perfect infinitive constructions in question developed as an analogical extension to modal constructions seems likely. In fact, it is very likely that speakers started to use the past tense of verbs like *intend to*, *mean to*, *be to* and *expect to*, which denote an unfulfilled plan, wish or arrangement with a perfect infinitive complement along the line of the assumption that this is a very similar pattern to the ‘modal + perfect infinitive’ construction, as «[o]ne feature that is common to all modal utterances is that they do not represent situations as straightforward facts» and are to be considered «non-factual» (DEPRAETERE and REED 2006: 269). Strictly speaking, a plan, an intention or expectation always carries the notion of being hypothetical and non-factual in its meaning and might explain why and how this analogical extension of the modal construction came about.

In the case of *be to*, this is especially convincing. As has already been pointed out, *be to* is considered a semi-modal and very similar to the central modal verbs and therefore might have been the trigger of this extension, also considering that many of the very early examples of perfect infinitives are complements of the past tense of *be to*, as shown in Section 2.1.

5.2 Some semantic considerations

Analogy is often said to follow the principle of ‘one-meaning-one-form’ and that its task in language change is to «arrange things in accordance with this principle» (LASS 1980: 71). The interesting thing here is, however, that analogy apparently did not quite meet up with this requirement in the case of the perfect infinitive construction, as the perfect infinitive is usually interchangeable with the present infinitive without an obvious change of meaning and thus entailing a case of syntactic synonymy.

(33) a. *They and the Carters* ***were to have shared*** *it that year with the computer analyst and his wife, but one of this couple's children was involved in an accident and they had to cancel last minute.* <BNC:BMR:W_fict_prose>
b. *They and the Carters* ***were to share*** *it that year with the computer analyst and his wife,* […]

The apparent difference between the analyses of sentence (33a) and (33b) would be that in (33b), a componential analysis is possible because the meaning of every single element can be combined to produce the meaning of an intended, but not actualized, event of sharing, even though it was suggested that the present infinitive transports facts. MOLENCKI (1999: 100) uses the following quotes to illustrate and support this claim:

(34) *Iudas Scarioth, oon of hise disciplis, that* ***was to bitraye*** *him.*
Wycliffe *John* 12.4 c1380

(35) Mr. At. Gen. Mr. Oates **was** about **to have made** him a Priest, but it seems he hath a Wife and Children, and so is out of danger.
The Trial of Titus Oates N 83 C2 1685

(36) *I* ***was to have dined*** *to-day with Lord Keeper, but would not*
Swift *Journal to Stella* 492 c1710

What he does not consider here is, however, that her only example using the present infinitive makes use of another sense of *be to* than the examples with the perfect infinitive. While the latter two sentences use *be to* in its sense of a plan or an arrangement, (31) uses the verb to communicate something that happened later. On the one hand, Molencki is therefore right in saying that in this special case, the perfect infinitive refers to fact; on the other hand, one has to be careful not to mix up different meanings of a word, no matter how fine-grained these differences might be.

BOLINGER (1968: 127) claims that there are no real synonyms in language and that different forms have to be connected with different meanings. This is picked up by GOLDBERG (1995: 67) in her Principle of No Synonymy, which would be violated by examples (33a) and (33b), as well as the Principle of Maximized Expressive Power. The Principle of No Synonymy has two corollaries. The first claims that «if two constructions are syntactically distinct and S(semantically)-synonymous, then they must not be P(ragmatically)-synonymous» (GOLDBERG 1995: 67). According to this principle, there has to be a pragmatic difference between (33a) and (33b). As already shown, this would be the position BEREZOWSKI (2004) takes. The hypothesis that the constructions using the present infinitive violate the maxim of quantity and that the perfect infinitive is used to compensate for the lack of information would be a way out, but has already been refuted. Pragmatic differences would also include stylistic aspects such as register. Based on the results from the corpus search, the assumption that constructions are a feature of colloquial spoken and informal written language and used less in more formal written (for instance, academic) language could not be confirmed, however.

The second corollary presents the reverse option to corollary A by saying that «if two constructions are syntactically distinct and P-synonymous then they must not be S-synonymous» (GOLDBERG 1995: 67). Thus, if we assume that there is no real difference in style, there has to be a semantic difference. What is this difference then? Well, the claim that the present infinitive implies success whereas the perfect infinitive does not has already been rejected by the fact that there are other elements in a counterfactual utterance which cause this interpretation. In a similar context, JAMES[5] (1985: 78) proposes that the use of the perfect infinitive locates the planned event on the same temporal level as the plan, i.e. before the time of speaking, whereas the present infinitive suggests that the possibility of the actualization of the planned event might reach up to the time of the utterance or even further.

(37) a. *In a case study by Turner (1987) an account is given of an inspection which* ***was to have built*** *upon a self-evaluation, with the latter acting as an initial ground clearing and the provision of information. However, the inspectors ignored and even scorned the self-evaluation, seeing only their inspection as important*.
<BNC:FAM: W_ac_polit_law_edu>
b. *In a case study by Turner (1987) an account is given of an inspection which* ***was to build*** *upon a self-evaluation*, …

Thus, (37b) might imply the possibility that the plan of building the inspection upon a self-evaluation is still held, whereas the perfect infinitive in (37a) excludes this option. It does not really apply to the sentences in (37) because the clause following the perfect infinitive shows that the plan already failed and that there is no way left to build the inspection on a self-evaluation. The same goes for the other examples given in this paper, which is why this approach is not able to provide the desired answers either. This means that at this point, as unsatisfying as it might be, it is impossible to give a definite answer to the question about the difference in meaning between the perfect infinitive constructions and their corresponding constructions with a present infinitive.

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[5] JAMES (1985) comments on a structure ironically used by James THURBER (1950) in a short story as part of a short story collection which makes fun of Henry FOWLER's (1926) prescriptive *Dictionary of Modern English Usage*, *I would have liked to have found you in*, where two perfect infinitive complements (the first one complementing the modal auxiliary, the second one complementing the first perfect infinitive complement) co-occur.

5.3 A case of anteriority agreement

As we have shown that the perfect infinitive does not function as a marker for counterfactuality, it is now time to establish its actual function in the environments in question. For this purpose, we will have to make a little detour to get some insight from German, where AMMAN (2007) has observed some interesting 'redundancy' phenomena – namely double perfects and double pluperfects – where a second perfect form is used in an already perfect construction (cf. (38)). As the perfect infinitive constructions in question have repeatedly been considered 'superfluous', 'pleonastic' or 'redundant', these German constructions provide an interesting point of comparison for the present purpose.

(38) *Ich habe/hatte gesungen gehabt*.

In this example, *Ich habe gesungen* or *Ich hatte gesungen* would already be well formed perfect and pluperfect sentences respectively. For some reason, however, another perfect form, namely the past participle of the auxiliary *haben* ('have'), *gehabt*, is added. AMMAN then poses the question whether this is really redundant or whether it actually is a morphological feature. The same can be asked about the English perfect infinitive constructions we are concerned with in this paper. Is the perfect infinitive in these constructions really redundant? For the German double perfects and double pluperfects, AMANN (2007) suggests different possible approaches to answering the question.

First, sentences in which these double constructions occur usually have complex temporal relations. Hence, especially in written, literary German it is possible that the writer feels that a simple (plu-)perfect is not specific enough to communicate them appropriately, and uses the double perfect stylistically in order to add an additional temporal marker. In colloquial spoken language, it is less likely that speakers care much about semantic precision regarding temporal and aspectual relations, which leaves some ground for the claim that double perfects are redundant in informal speech. AMMAN (2007: 202) objects, however, that «at the same time, it is conspicuous that the uses of DPCs [double plu-perfect constructions] in colloquial language resemble each other or at least they are not completely random». Moreover, AMMAN (2007: 194) argues that it might have something to do with the «[t]endency in colloquial German to use bulkier verb forms where simpler ones would suffice», even though the simpler forms would be shorter and therefore more economical. Another possible explanation would be that redundant verb forms are simply used because they are available (AMMAN 1997: 194).

So what about the English perfect infinitive constructions then? At first glance, the *to*-perfect seems to be unnecessary and redundant. The comparison of perfect infinitive constructions with corresponding present infinitive constructions also suggests that there is no obvious semantic motivation for the use of the perfect infinitive, since there is no clear difference in meaning and that «there is some leeway» (BOWIE and AARTS 2011: 8) left open for speakers to decide which of the two constructions they choose. It is very likely that people pay less attention to what they are saying in informal registers, but it couldn't be confirmed that perfect infinitive constructions are a feature of informal language. Nevertheless, the pattern of a past tense governing verb with a following perfect infinitive does not leave the impression that it is a random phenomenon, especially as the structure is not a recent phenomenon. Despite the fact that the use of the perfect infinitive is in decline, it is still used too frequently and too specifically for being the result of carelessness in colloquial language. The point that verb forms are used because they are available seems plausible, but availability can hardly be the only reason, given the possibility that there are other structures which are not used even though they would be available and even more economical.

For the German double plu-perfect constructions, AMMAN (2007: 202) argues that if they communicate a difference in meaning, it is most likely to be of temporal or aspectual nature. I think these are exactly the points which need to be considered in order to prevent the perfect infinitive constructions from being treated as a case of mere redundancy.

Drawing on JAMES's (1985) thoughts about seemingly redundant perfect infinitives, I argue that perfect infinitive complements are neither intended to place the event of the proposition prior to the past event, i.e. plan or arrangement (which is not only illogical but also impossible), nor to mark counterfactuality, but to create contemporaneous or even temporal relations of posteriority between both events.

The subsequent interpretation is fairly obvious: if the governing verb phrase is past, its complement, which is to be interpreted as being simultaneous to the past hypothetical event, i.e. the plan expressed by *was to*, has to be marked for past tense as well in order to place them on the same temporal level and especially to place them prior to the time of utterance.

This is also why the importance of the temporal past tense frame has been stressed repeatedly throughout the past sections. Only a past oriented matrix enables the perfect infinitive construction, because with a present matrix there is no need for the use of a perfect infinitive in order to establish a simultaneity interpretation between the governing verb and its complement.

Thus, it seems that the perfect infinitive constructions constitute instances of what GÖRLACH (1991: 111) refers to as «hypercorrect marking of past». Hypercorrect they are because the additional perfect marker as indication of the anteriority of the proposition is not utterly essential, a present infinitive would be just as appropriate to mark simultaneity. Nevertheless, the term 'hypercorrect' also transports the fairly negative sense of redundancy. A maybe more neutral way to describe this phenomenon would be to refer to it as a type of *anteriority agreement*. This would be based on speakers' assumption, which they deduce from their language knowledge as well as their intuition, that a governing verb and its verbal complement have to agree along formal as well as semantic, including temporal, lines and that therefore the complement has to be marked in order to make both elements congruent. For verbs which take infinitival complements, the perfect infinitive is the only option to mark these relations if one wants to do so.

With verbs like *be able to* and *manage*, which can also occur as head verbs in perfect infinitive constructions, the interpretation runs along the lines of simultaneity relations, while other verbs like *intend*, *mean (to)*, *be to*, where the intended or planned event is never simultaneous with the intention or expectation, are to be interpreted as posterior. JAMES (1985: 78) also points to «the tendency in English to interpret temporal forms in relation to the time of speaking». Thus, if not otherwise specified, the time of speaking is always the point of reference. This is a very interesting point and should be elaborated on a little more. So far, I have argued that the perfect infinitive is primarily a marker for anteriority in relation to any given reference point – the reference point mostly being the time indicated by the governing verb, which, in turn, is interpreted in relation to the time of speaking. As a complement, the perfect infinitive is dependent on its governing verb and interpreted in relation to its time. As «there is a potential for interpreting the perfect infinitive in two separate ways, either in relation to the time established by the governing verb or in relation to the time of speaking» (JAMES 1985: 79) there is a second option, which is very likely to be applied from a speaker's perspective. This does not mean that in this latter type of interpretation, the dependency relations are not considered – quite the contrary. Speakers must be aware of the dependency between governing verb and its complement, only that they orientate their interpretation according to the time of speaking. Thereby, agreement is created by not only positing the governing verb prior to the time of speaking by marking it for past tense, but also by marking the dependent complement. While the iconic form-meaning correspondence diverges if the time of the governing verb is the time of orientation, this correspondence is preserved if the reference point is the time of speaking. Moreover, this way of interpretation offers the possibility to see the perfect infinitive as a deictic form, similar to a tense (JAMES 1985: 79).

Even though it might not be obvious at first glance, I further argue that the perfect infinitive constructions in question can be seen as an instance of syntactic doubling, which is «a core property of natural language» (BARBIERS, KOENEMAN and LOKAKOU 2011: 1). Syntactic doubling means that any constituent – be it a morpheme, word or phrase – is repeated once or even more often. BARBIERS (2008: 2) claims that agreement is a subcase of syntactic doubling. Thus, if perfect infinitive constructions are instances of anteriority agreement, we have some ground to assume that they are instances of syntactic doubling as well. No morpheme or word is overtly expressed twice or more often, but there are two elements for marking pastness – one being the past tense of the governing verb and one being the perfect infinitive, which, as just pointed out, can have a deictic function.

6. Conclusion

The constructions discussed in this paper have been subject to condemnation by pre- and proscriptive grammarians throughout its history, but they have survived the criticism and still occur – even though very rarely – in Present-Day English. As shown by data retrieved from *COCA* and *COHA*, seemingly redundant perfect infinitives might be disappearing from the surface altogether. Based on a language sample retrieved from *BNC*, *COCA* and *COHA*, the main purpose of this paper was to show how these structures work and that the perfect infinitive, i.e. *have* + past participle, is not a marker of counterfactuality, as commonly assumed. Instead, I tried to propose an alternative explanation for these perfect infinitives complementing past tense forms of verbs with futurity orientation, especially focusing on the semi-modal *be to*. By adopting a constructional perspective, I argue for the existence of a 'perfect infinitive construction', which, by constituting a form-meaning pairing whose semantic interpretation can neither be predicted nor derived from its individual constituents, complies with the basic requirements for a construction in the sense of Construction Grammar.

Being a non-finite form of the perfect, the perfect infinitive usually functions as an indicator for anteriority relations between the event denoted by a matrix verb and an event marked by its complement. From the analysis of the examples in the previous sections it became evident, however, that in these cases its temporal indications are the reverse – expressing posteriority relations. Any other interpretation would be illogical; therefore, it is very likely that the perfect infinitive marks a case of hypercorrect marking of past, or rather, a form of anteriority agreement where the speaker apparently feels the urge to locate the event encoded by the perfect infinitive on the same temporal level as the past tense matrix, i.e. prior to the time of speaking.

Further arguments against the counterfactuality hypothesis would be the perfect infinitive's exchangeability with a present infinitive without an obvious change of meaning, even though this variation seems to violate the Principle of No Synonymy. Unfortunately, this paper does not offer the space for an exhaustive discussion regarding semantic differences and has to leave this question mostly unanswered. Further insight into this still largely neglected area might, however, be gained from further research including perfect as well as present infinitive complements as well as by looking at the closely related double perfect infinitive constructions.

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