

The development of perfect auxiliary verbs *be* and *have* in Early Australian English (1788-1937): a corpus study

La evolución de *be* y *have* como verbos auxiliares de tiempos perfectos en inglés australiano temprano (1788-1937): un estudio de corpus

Gemma Plaza Tejedor

Universidad Complutense de Madrid

[gemma PLA@ucm.es](mailto:gemmaпла@ucm.es)

Abstract: Australian English is a relatively new variety of English. As a result, many of its features are still largely unexplored and most research concerning this variety of English has focused on the description of its distinctive phonological features. The aim of the present study is to contribute to a better understanding of the evolution of Australian English by carrying out a diachronic corpus analysis on the evolution of perfect tenses, paying especial attention to the choice of *be* and *have* as perfect auxiliary verbs during the 19th century and the first third of the 20th century. The results will confirm that *have* was already the primary perfect auxiliary verb, although it is expected that *be*-perfects are also frequently used throughout the period analysed.

Key words: Australian English, perfect tenses, auxiliary verbs, historical linguistics, corpus analysis

Resumen: El inglés australiano es una variedad del inglés relativamente nueva, por lo que sus rasgos principales no han sido todavía descritos en profundidad. De hecho, la mayoría de lingüistas que han contribuido a la descripción del inglés australiano se han centrado, casi de manera exclusiva, en la descripción de sus características fonológicas más distintivas. El presente estudio trata de contribuir a un mejor conocimiento de la evolución del inglés australiano llevando a cabo un análisis diacrónico de corpus centrado en la evolución de los tiempos perfectos en esta variedad del inglés durante el siglo XIX y el primer tercio del siglo XX, prestando especial atención a la alternancia de los verbos *be* y *have* como verbos auxiliares de perfecto. Se espera que los resultados confirmen la presencia del verbo *be* como verbo auxiliar de los tiempos perfectos, aunque será *have* el principal verbo auxiliar de perfecto.

Palabras clave: inglés australiano, tiempos perfectos, verbos auxiliares, lingüística histórica, análisis de corpus

1. Introduction

It is generally agreed that the first settlers who came into Australia in 1788 were convicts from London, although some researchers have stated that free immigrants also arrived in Australia, mainly from northern and southern areas of Britain, Scotland and Ireland (Moore, 2008). It is precisely this mixing of dialects that makes it difficult to achieve a consensus of the origin of Australian English (henceforth, AusE).

It is commonly thought that AusE comes from Cockney English; however, there is no evidence of a convict community whose language could have shaped or influenced the variety spoken in Australia (Fritz, 2004). For most researchers, AusE is the result of the mixture of the English spoken in South East England and other British dialects, although authors have not reached a consensus on where such mixing must have taken place (Trudgill, 1986; Fritz, 2004).

The fact that AusE is considered a relatively new variety of English may explain why scholars have preferred to focus on researching its lexicon, grammar and, especially, its phonology, from the late 20th and the early 21st centuries (Collins and Peters, 2008; Horvath, 2008; Pawley, 2008). These studies are evidence of the distinctiveness of AusE from other varieties of English, and most researchers agree that it has become a national standard (Collins and Peters, 2008).

Despite the uncertainty on the origins and development of AusE, little research has been done regarding the evolution of AusE during the 19th century, *i.e.* Early AusE (henceforth, EAusE). Considering this, the present paper aims at contributing to the understanding of the origins and development of AusE during the EAusE period by carrying out a corpora analysis of one of the most characteristic features of present-day AusE (henceforth, PDAusE), *i.e.* the perfect tense, precisely describing the development of perfect auxiliary verbs *be* and *have* in perfect tenses in texts written in Australia from 1788 to 1937.

2. Previous studies

2.1. The perfect tense: its origins and development up to the 20th century

There is evidence that perfect constructions already existed during the OE period. McFadden (2017: 160) believes that perfect forms had their origin in periphrastic constructions which “were built on the regular stative-resultative meaning of the past participle”, which was still inflected at the time. According to McFadden and Alexiadou (2010), at this time, perfect constructions could only combine with state-result predicates; Barber *et al.* (1993) state that transitive predicates, that is, predicates that took a direct object (*e.g. play, eat*), selected the auxiliary *habban* ‘to have’ as part of the perfect construction. However, if predicates were intransitive, that is, they did not take a direct object (*e.g. come, go*), it was the auxiliary *bēon, wesan* (‘to be’) that was selected for the perfect form; sometimes, the verb *weorðan*, ‘to become’ was also used. Kytö (1997) further adds

that intransitive verbs denoting transition or change selected the auxiliary *be*, whereas transitive verbs indicating actions or processes would prefer *have*.

The alternation between the auxiliaries *have* and *be* was frequent up to the ME period (1066-c.1476), a period in which the English verbal system dramatically changed. McFadden (2017) points at a turning point *c.* 1350, in which the use of perfect constructions becomes far more frequent and the auxiliary *have* radically increased its frequency as a perfect auxiliary, whereas the *be*-perfect structure started to decline.

During the EME period (1476-1776), *be* still prevailed with mutative verbs, *i.e.* intransitive verbs, whereas *have* had gained ground in uses with the emphasis on the action or the notion of perfectivity (Kytö, 1997). In fact, Rydén and Brorstörm (1987) state, along with Kytö (1997), that there were certain structures which had a constraining effect on the use of *be* as a perfective marker: action as emphasised by modifiers, iteration/duration, unreality (conditionals and optatives), certain negated or questioned statements and perfect infinitives. McFadden and Alexiadou (2005) also notice that, during this period, *have* started to be selected by prototypical intransitive verbs which had previously preferred the auxiliary *be*, *e.g.* *arrive*.

The end of the EME period may have been a turning point in the history of the perfect tense; although *be* had not completely disappeared –it was the preferred auxiliary verb for intransitive mutative verbs (Rydén and Brorstörm, 1987)–, *have* was already being used with all lexical verbs; also, inflections had been completely lost from past participles, favouring the grammaticalization of these constructions (Kytö, 1997).

McFadden (2017) observes that *be* starts not to combine with intransitive predicates in their stative-resultative use around 1750. He looks at PDE evidence to guess what may have happened to *be*-perfects. Considering that *be*-perfects are a combination of the auxiliary *be* and an intransitive past participle, either one or the other must have changed. McFadden (2017: 170) concludes that more research on the semantics of stative-resultative participles is needed but it seems clear that “the syntactic structure underlying the *be* perfect must have been somehow lost from the language, with the structure involving *have* stepping in as an approximate replacement, at least in most contexts”.

The choice of perfect auxiliaries during the 19th century has been widely described. In her article on perfect auxiliaries in the LME period, Kytö (1997) found out that there are 12 verbs which seem to have selected the auxiliary *be* longer, *i.e.* *arrive*, *become*, *come*, *depart*, *enter*, *fall*, *get*, *go*, *grow*, *pass*, *return* and *run*; Calvo Cortés (2019) explains that, among these verbs, *be*-perfects are preferred by those which express motion (*e.g.* *run*). McFadden and Alexiadou (2010) mention it is *come* and *go* which resist the auxiliary *have* longer, which is in line with Kytö's findings, where there is evidence of *be*-perfects with *come* and *go* up to 1900.

2.2. Perfect auxiliary selection in Australian English

Regarding the choice of the auxiliaries *be* or *have* in perfect constructions in PDAusE, not many studies have been carried out. Although Kortmann and Szmrecsanyi (2004) mention the use of *be*-perfects in Australian Vernacular English (henceforth, AusVE), they do not provide any evidence of it. Besides, in his article on AusVE, Pawley (2008) does not refer to the use of *be*-perfects either.

Werner (2016: 271) has provided some meaningful data on this matter, stating that AusE is “the L1 variety with the second highest BEP¹ frequency” and that it is especially frequent in AusVE. He also challenges some views about present-day *be*-perfects. According to his study, *be*-perfects are not exclusively found with mutative intransitive verbs *come* and *go*, but they can take other transitive and intransitive verbs such as *happen*, *place*, *explore* or *stop*, among others; besides, although *be*-perfects are associated to a stative-resultative meaning, they can be found in other contexts too, including transitive readings. Although such innovations are more common in L2 varieties of English, they can be found in L1 varieties too. In fact, according to the study, around 45% of *be*-perfects in AusE take a transitive verb, whereas the other 55% take an intransitive verb; besides, the data suggests that AusE is the third L1 variety which allows a wider lexical selection, meaning a greater amount of verbs can combine with the auxiliary *be*.

Despite the lack of diachronic data, the evolution of the perfect auxiliaries in AusE can still be tracked thanks to grammars. Considering that EAusE developed from the different varieties of BrE that merged in the colony, a review of the eighteenth-century British grammars can be helpful to understand the situation of perfect constructions prior to the settlement. Robert Lowth's *A Short Introduction to English Grammar*, published in 1762 –i.e., 25 years before the first settlement–, may be a good starting point to understand how the use of the perfect tense may have been right before the colonisation. In his grammar, Lowth (1762) mentions that there are two main auxiliary verbs in English, which are *to have* and *to be*. Regarding perfect participles, he states that “this participle represents the action as complete and finished; and, being subjoined to the auxiliary *to have*, constitutes the perfect times” (Lowth, 1762: 54). He also emphasises the use of the auxiliary *be*: “the passive verb is only the participle passive [...] joined to the auxiliary verb *to be* through all its variations” (Lowth, 1762: 66), leaving it clear that, by the end of the 18th century, the auxiliary *be* does not seem to be valid as a perfect auxiliary anymore.

The first Australian grammars were also prescriptive grammars written by first- and second-generation native Australians who, having seen the English used in the colony change and become a new dialect, may have reflected the new rules and uses in their work. Bonwick (1868: 9) states in rule VII that “the past or perfect participle is used after the verbs *have* and *be*; as *you have written*, *it was*

¹ In Werner (2016), BEP stands for *be*-perfect.

given". By describing the use of the past participle and giving a couple of examples, Bonwick (1868) does make a distinction between the auxiliary *have*, which is used in perfect constructions, and the auxiliary *be*, which is used in passives. Moore (1865: 39) is more explicit and states that "*have* is the sign of the present complete tense". Moreover, he explains that "a passive verb is known by the participle indefinite being after any part of the verb *to be*" (Moore, 1865: 45). Thus, it can be said that, by the mid-nineteenth century, AusE had developed a set of rules regarding the distribution of the auxiliary verbs *be* and *have*, and these agreed with the norms prescribed by eighteenth-century British grammarians.

3. Research questions

As mentioned above, the present study focuses on describing the evolution *be* and *have* as perfect auxiliaries in perfect tenses during the EAusE period, a time in which *have* had already become the default auxiliary verb.

This paper is also aimed at providing a source of information which may shed some light into the origins and development of AusE, hoping the results help frame the development of perfect tenses during the Late Modern English period (henceforth, LME) by comparing the findings with previous analyses on other varieties of English during the same period.

In order to fulfil these objectives, the following research questions will be addressed:

- Was the choice of perfect auxiliary verbs *have* and, especially, *be*, part of the Australian variety of English at the time?
- In terms of frequency, was there a spur in their use or was it evenly spread throughout the time-span analysed?
- To what extent was the choice of one or the other influenced by other varieties of English, especially British English (henceforth, BrE) dialects?

4. Hypotheses

Based on the research questions presented above and taking into consideration the theoretical introduction on the development of perfect constructions in the history of English –more specifically, in the history of AusE– the following hypothesis have been established:

- It is expected that the verb *have* will be the most frequent perfect auxiliary verb in the corpora.
- However, the evidence found in LME and PDAusE suggests that there are reasons to believe that the auxiliary *be* will be still used as a perfect auxiliary in EAusE. It is thought that the auxiliary verb *be* will be present in the corpora, although it is expected that its use in perfect tenses may tend to be reduced towards the end of the 19th century and, especially, in the 20th century, in favour of *have*-perfects.
- In general, although AusE perfect tenses during the LME period are thought to have behaved similarly to their counterparts in BrE, there are

reasons to believe that these may have developed certain intrinsic features due to the social and linguistic situation of the colony, among which the use of *be*-perfects may have been included. Different varieties of English, along with the influence of Aboriginal languages, merged into a new variety of English, AusE, resulting, in turn, in the merging of different cultures and traditions, which may have affected language development.

5. Methodology

5.1. The materials

The corpora selected for the analysis are *THE CORPUS OF Oz EARLY ENGLISH (COOEE)*, which covers the period 1788-1900, and *AUSTLIT CORPUS (AUSTLIT)*, which covers the period 1900-1937.

COOEE online version compiles a wide variety of published and unpublished literary works, private and public correspondence, diaries, historical and legal texts, news reports, and speech-based texts amounting to c. 1,545,163 words. *COOEE* is divided into four different periods, namely *COOEE1* (1788-1825, 330, 591 words), *COOEE2* (1826-1850, 355, 913 words), *COOEE3* (1851-1875, 395, 857 words), and *COOEE4* (1876-1900, 462, 802 words). Most of the texts included in the corpus were written in Australia, Tasmania and Norfolk Island (Fritz, 2004). Regarding the origin of the authors, many texts included in *COOEE1* and *COOEE2* were written by English people, whereas texts written by native Australians are more frequent in *COOEE3* and *COOEE4*.

AUSTLIT online version compiles a selection of fiction, poetry, criticism, reviews and diaries written during the 19th and 20th centuries, including a total of 4,234,314 words. For the purpose of this analysis, only texts written in the 20th century have been selected, that is a corpus of 1, 589, 581 words, thus keeping the number of words balanced with that of *COOEE*. In the case of this corpus, all texts were written in Australia by native Australians.

It was mentioned in Section 2.1 that Kytö (1997) found out that there were 12 verbs which still selected the auxiliary *be* in perfect constructions very frequently during the LME. Since the search had to be limited in order not to retrieve more information that could be possibly handled, the use of these 12 mutative verbs was considered appropriate to restrict the analysis while guaranteeing the retrieval of a representative number of *be*-perfect examples. The verbs are *arrive, become, come, depart, enter, fall, go, get, grow, pass, return* and *run*; of these, the verb *get* was omitted from the analysis because of the difficulty in determining whether the verb *have got* forms were part of a perfect tense or not.

The examples were retrieved from the corpora by using the concordance programme AntConc (Version 3.5.8).

5.2. The data

The total number of examples retrieved from the corpora for this feature is 2,432, of which 1,213 have been extracted from *COOEE* and 1,219 belong to *AUSTLIT*.

Positive, negative, and interrogative sentences were included in the analysis. In order to account for as many positive and negative sentences as possible, the past participle forms of these 11 verbs was searched for in combination with the auxiliaries *be* and *have* in their present and past forms – including contracted and non-contracted forms in the case of negative sentences – *e.g. is arrived, has not arrived, wasn't arrived*. Also, wildcards available in AntConc were used to retrieve positive and negative verbal phrases modified by adverbs or other modifiers, as well as examples of interrogative sentences. Finally, the base form of the auxiliaries *be* and *have* was searched and sorted alphabetically to look for modal perfect constructions in their simple and progressive positive, negative, and interrogative forms, contractions included.

The data retrieved from the corpora was manually analysed. Examples of the auxiliary *be* in which the auxiliary verb seemed to function as the marker of a passive voice construction rather than as a perfect auxiliary (*e.g. our course is run*) were ruled out. Also, verbal contractions of the auxiliary verbs in their positive form were opted out of the analysis in order to avoid retrieving more data that could be handled, as well as ambiguous examples, which would be the case of the third person singular 's, which stands for the forms *is* and *has*. Finally, non-finite constructions were also ruled out due to space limit constrictions.

The selected concordances have been used to compare frequency rates of each of the features analysed among the periods covered in the study.

In order to obtain more meaningful and comparable results, the figures presented in Section 6 have been normalised by 100,000 words using the formula below:

$$(\text{no. examples} * 100,000) / \text{no. words in corpus} = \text{normalised data}$$

It is important to mention that not all figures have been normalised by the total number of words of each corpus. For instance, in the case of *COOEE*, its subperiods –*COOEE1, COOEE2, COOEE3* and *COOEE4*– have sometimes been treated independently, meaning that where their data has been presented, it has been normalised by the total number of words of the corresponding subperiod and not the whole *COOEE*. It was thought that this measure would show more representative figures of the evolution of the features analysed. Where *COOEE* and *AUSTLIT* are compared, however, the figures have been normalised by the total number of words of each corpus. Finally, where it is necessary to show the data retrieved as a whole –that is, *COOEE* and *AUSTLIT* together– the figures have been normalised by the total number of words of both corpora together, that is, 3,134,744 words.

Also, the frequency of some features has sometimes been expressed in percentages, which have been obtained according to the following formula:

$$\text{total no. of examples of the feature} = 100 \%$$

$$\text{no. examples of the feature (with a given verb/in a corpus)} = X$$

In order to avoid confusion, the normalisation process selected for each figure included in Section 6 will be indicated accordingly.

6. Results

6.1. The use of *be*-perfects in COOEE and AUSTLIT

Figs. 1 and 2 show the frequency of use of *be*-perfects with each of the 11 verbs selected for the analysis. It can be observed that most verbs select the auxiliary *be* more frequently in COOEE than in AUSTLIT –with a total of 195 and 153 instances respectively–, which supports the idea that *be*-perfects are used more in the 19th century than in the 20th century. However, it can also be observed that the verb *go* combines with a *be*-perfect more often in COOEE than in AUSTLIT, which challenges the view that these structures were no longer productive in the 20th century.

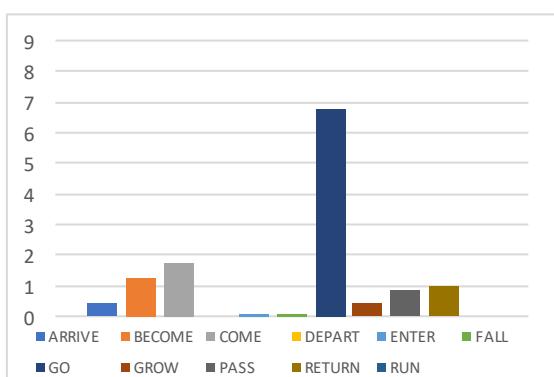


Fig. 1: *be*-perfects in COOEE
Normalised by corpus

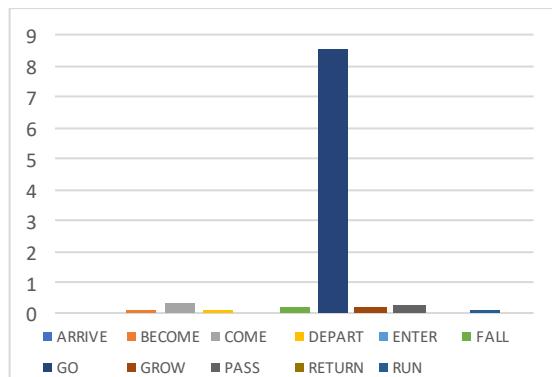


Fig. 2: *be*-perfects in AUSTLIT
Normalised by corpus

Fig. 3 shows the figures obtained in each of the subperiods of the corpora, providing a better insight of the evolution of *be*-perfects with these 11 verbs. As shown in this table, there are five verbs, namely *become*, *come*, *go*, *grow* and *pass*, which combine with *be* in perfect structures in all subperiods of the corpora. Among these verbs, it is only *become* which tends to reduce its combination with *be* in perfect structures in all sections of the corpora. The verbs *come*, *go*, *grow* and *pass* experiment a sudden spur in COOEE2, although they tend towards the reduction of their *be*-perfect forms, bottoming out in AUSTLIT. The verb *go* is, however, an exception to this: the data in Fig. 3 shows that *be*-perfects with *go* are indeed highly used in the 20th century.

The verbs *arrive*, *enter* and *return* combine with *be*-perfects in COOEE, but not in AUSTLIT. Although *be*-perfects are present in combination with *arrive* and *return* up to COOEE3, their figures tend to decrease from section to section of the corpora; besides, there is only one example of *be*-perfect combined with *enter*, found in COOEE2. The verb *fall* presents a total of four examples of *be*-perfects in the whole corpora, one in COOEE and three in AUSTLIT. Finally, the verbs *depart* and *run* do not present any instance of *be*-perfects in COOEE; in contrast, each of them appears in one perfect construction with *be* in AUSTLIT.

	COOEE1	COOEE2	COOEE3	COOEE4	AUSTLIT
Arrive	1.21	0.28	0.50	0	0
Become	3.33	1.40	0.50	0.22	0.06
Come	1.51	3.65	1.77	0.43	0.31
Depart	0	0	0	0	0.06
Enter	0	0.28	0	0	0
Fall	0	0.28	0	0	0.19
Go	4.54	8.43	8.59	5.62	8.49
Grow	0.30	0.84	0.25	0.43	0.19
Pass	1.21	1.68	0.25	0.43	0.25
Return	1.81	1.40	1.01	0	0
Run	0	0	0	0	0.06

Fig. 3: Normalisation of *be*-perfects in COOEE and AUSTLIT. Normalised by subperiods

6.2. The use of *have*-perfects in COOEE and AUSTLIT

Figs. 4 and 5 show the frequency of use of *have*-perfects with each of the 11 verbs selected for the analysis. It seems clear that *have*-perfects are far more frequent than *be*-perfects in both corpora; in fact, the total number of examples of *have*-perfects is 1019 in COOEE and 1066 in AUSTLIT. Overall, the 11 verbs selected for the analysis combine more frequently with *have* than with *be* in both corpora, although it can be observed that there are certain verbs, *e.g.* *become*, *come*, *go*, or *pass* that tend to appear more often in perfect tenses than others, such as *depart*, *enter* or *run*.

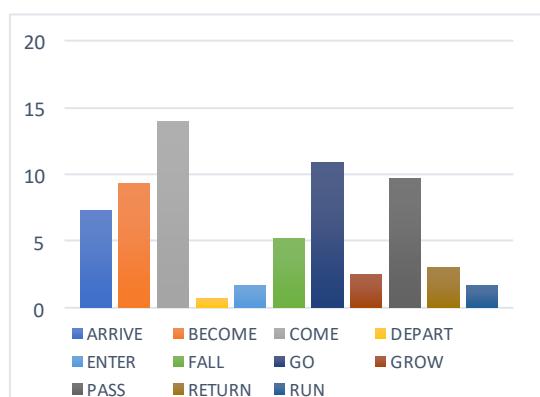


Fig. 4: *have*-perfects in COOEE

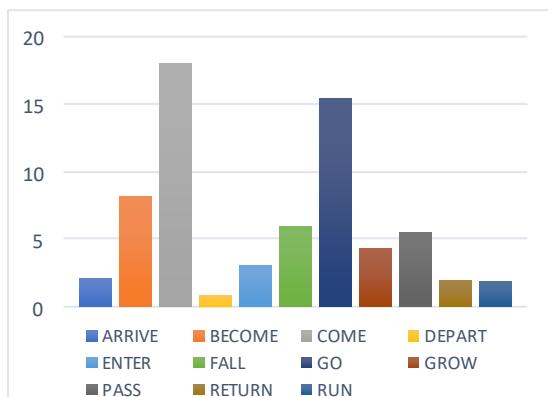


Fig. 5: *have*-perfects in AUSTLIT

Normalised by corpus

Normalised by corpus

The figures obtained for each subperiod of the corpora are presented in *Fig. 6*. As can be observed, the general tendency throughout the period studied has been an increase in the number of perfect tenses with *have*. This is represented by the figures shown in *COOEE4* and *AUSTLIT*: except for *arrive*, *grow* and *pass*, all verbs present higher figures of *have*-perfects in *AUSTLIT* than in *COOEE*; nevertheless, there are some verbs presenting certain inconsistencies. For instance, the figures shown by *arrive* and *pass* in *COOEE1* (11.49 and 9.38, respectively) are very distant from their figures in *AUSTLIT* (2.08 and 5.47, respectively), especially in the case of *arrive*. Also, except for *come*, *go* and *grow*, all verbs present higher frequency rates of *have*-perfects in the *COOEE1* than in *COOEE4*, although some of them increase their combination with *have* in perfect tenses in *AUSTLIT*.

	<i>COOEE1</i>	<i>COOEE2</i>	<i>COOEE3</i>	<i>COOEE4</i>	<i>AUSTLIT</i>
Arrive	11.49	10.11	4.29	4.54	2.08
Become	9.07	14.61	6.31	7.99	8.18
Come	6.35	17.14	18.19	13.40	17.99
Depart	1.21	0.28	1.01	0.43	0.82
Enter	2.12	3.09	1.77	0.22	3.02
Fall	4.54	5.62	7.58	3.24	5.91
Go	9.38	12.92	10.86	10.37	15.41
Grow	0.60	2.53	1.51	4.75	4.34
Pass	9.38	10.39	11.37	7.99	5.47
Return	2.45	4.21	4.55	1.30	1.95
Run	1.81	1.97	1.26	1.51	1.89

Fig. 6: Normalisation of have-perfects in COOEE and AUSTLIT. Normalised by subperiods

6.3. A comparison of perfect auxiliaries in *COOEE* and *AUSTLIT*

Fig. 7 illustrates the use of perfect auxiliaries *be* and *have* in Australia during the period covered in the study. It is clear that, by 1800, the use of *have* as a perfect auxiliary was already far more frequent than the use of *be*, although *be*-perfects were still used throughout the 19th century and the first third of the 20th century.

Fig. 7 also shows that, despite the difference in the frequency of each structure, *be*-perfects and *have*-perfects experienced a similar developing pattern during the time span analysed: both structures increase their frequency during the first half of the 19th century and reach their peak in 1850. From then onwards, their use slightly declines up to 1900. Finally, the use of both structures rises again during the 20th century. In the case of the *have*-perfects, the rates presented in *AUSTLIT* are higher than the rates in *COOEE1*; in contrast, the rates of *be*-perfects in *AUSTLIT* are lower than the rates in *COOEE1*, which is in line with the idea that,

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during this period, *be*-perfects are falling into disuse and *have*-perfects are beginning to standardise completely.

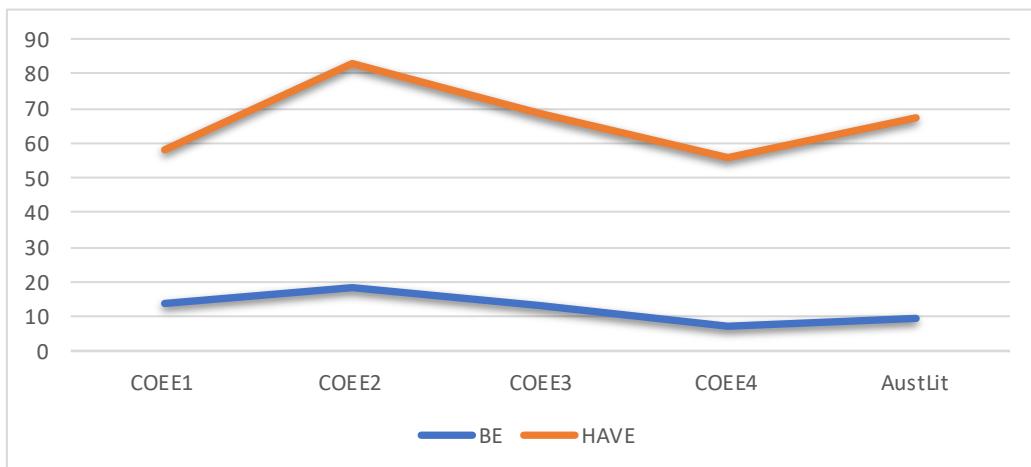


Fig. 7: The evolution of *be* and *have* perfects during the 19th and 20th centuries. Normalised by subperiods

Fig. 8 shows the choice of the auxiliary *be* and the auxiliary *have* in COOEE and AUSTLIT. Two phenomena can be observed: first, that the choice of *have* already outnumbers the choice of *be* since the early 19th century, being the auxiliary *have* the most frequent perfect auxiliary in both corpora; second, that the choice of the auxiliary *be* declines in the 20th century, whereas the choice of the auxiliary *have* increases.

	COOEE	AUSTLIT
<i>be</i> -perfects	12.92	9.62
<i>have</i> -perfects	65.88	67.06

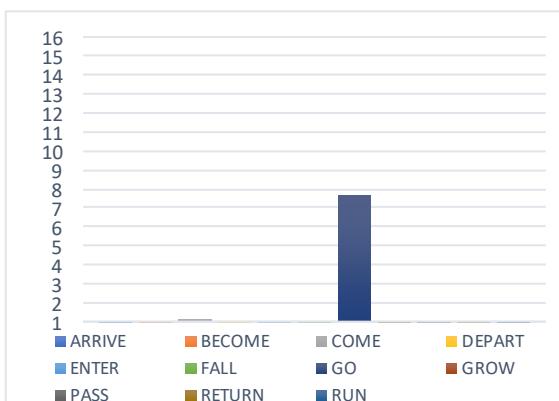
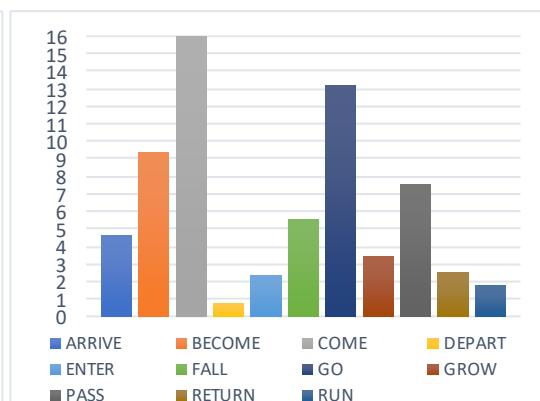
Fig. 8: Normalisation of the examples of *be*-perfects and *have*-perfects. Normalised by corpus

Fig. 9 corresponds to the data shown in Fig. 7 and presents the figures of the evolution of perfect auxiliaries within the subperiods found in the corpora. It can be seen that the use of perfect structures lowers from COOEE1 to AUSTLIT in the case of *be* (12.62 vs. 9.62, respectively) and rises in the case of *have* (65.88 vs. 67.06, respectively). According to the figures, the choice of *have* as a perfect auxiliary is much more frequent than that of *be* in all the sections the corpora are subdivided into. Interestingly, the narrowest gap in the use of both structures is found in COOEE1 (13.91 vs. 58.07) with a difference of 44.16; however, this difference sharpens in COOEE2 (82.88 vs. 18.26, with a difference of 64.62) and keeps more or less stable since that moment onwards. Although the difference between *be* and *have* perfects in AUSTLIT is slightly lower (9.62 vs. 67.06, respectively) than that of COOEE2, these figures suggest that the choice of perfect auxiliary in AusE evolved similarly to other varieties of English.

	COOEE1	COOEE2	COOEE3	COOEE4	AUSTLIT
<i>be</i> -perfects	13.91	18.26	12.88	7.13	9.62
<i>have</i> -perfects	58.07	82.88	68.71	55.75	67.06

Fig. 9: Normalisation of total examples of *be* and *have* perfects in each corpus. Normalised by subperiods

The total number of instances of *be*-perfects in both corpora is 348, whereas that of *have*-perfects is 2084, meaning that the use of *be*-perfects is very low if compared to the use of *have*-perfects. The figures of both COOEE and AUSTLIT have been put together in Figs. 10 and 11 to provide an overview of the use of *be* and *have* as perfect auxiliaries during the 19th and 20th centuries.

Fig. 10: *be*-perfects in corpora
Normalised by total corporaFig. 11: *have*-perfects in corpora
Normalised by total corpora

The first thing that can be observed is the rather low figures *be*-perfects present, being most of the verbs below 1.00; in fact, the only verbs whose figures are over 1.00 are *come*, with 1.02, and *go*, with 7.66, which is the only one noticeable in Fig. 10. In contrast, *have*-perfects present much higher figures for the 11 verbs analysed. It is worth mentioning that, in this case, it is also *come* and *go* that present the higher figures within the group (16.01 and 13.17, respectively). It is also observed that *come* clearly favours *have* over *be*, whereas *go*, despite favouring *have*, seems to be more flexible than *come* and combine with *be* quite often, which may account for its lower *have*-perfects figures if compared to *come*.

7. Discussion

The results presented in this study suggest that the development of perfect auxiliaries *be* and *have* follows a similar pattern in AusE if compared to other varieties of English. By 1800, the verb *have* is already considered the primary perfect auxiliary, which may be motivated by the arrival of many English settlers whose language was in turn influenced by the eighteenth-century prescriptive grammars of English (Lowth, 1762). However, despite the fact that many researchers (Rydén and Brörstrom, 1987; Kytö, 1997; McFadden, 2017), agreed that *be*-perfects were progressively falling into disuse, at least in BrE, the AusE data

challenges this view: according to the results, at the beginning of the 19th century, the use of the auxiliary *be* in perfect constructions was far from disappearing; in fact, although the use of *be*-perfects was reduced to certain verbs and expressions, the results confirm that the structure was not obsolete by 1937.

Unexpectedly, the rise of *have* and the fall of *be*, especially during the 19th century, is not as straightforward as it was thought it would be. The data obtained from the subperiods of COOEE shows many inconsistencies regarding the frequency of verbs and perfect auxiliaries, which show the same tendency in all periods regardless of their frequency. The figures in COOEE2 are especially high, affecting not only the rates of perfect auxiliaries, but also those of verbs, some of which double their figures during this period just to plummet in COOEE3. The normalisation cannot explain these figures since COOEE has been split into four parts which contain the same kind of texts and equal number of words per genre, which gives more credibility to the rates in COOEE2. Therefore, the reasons behind this phenomenon must be found somewhere else. It could be that the COOEE2 period (1825-1850) coincided with the establishment of the new variety of English, which was in turn in contact with many different dialects and languages, thus shaping the English spoken in Australia. However, at the moment, the fact that these constructions plummet in COOEE3 can only be accounted for by the verbs selected for the analysis, which may have just happened to be used more often during the COOEE2 subperiod.

The results obtained may, somehow, be influenced by the limitations established to the analysis, especially regarding the list of verbs selected for the study. However, had these verbs not been selected, it would have been very difficult to handle the data and retrieve valuable examples of the use of *be* as a perfect auxiliary; nonetheless, although the selection criteria has helped to secure a bundle of *be*-perfect examples, the question of whether these constructions were still used in different syntactic environments other than intransitive constructions remains unknown.

Despite the fact that the results seem to be influenced by the higher or lower frequency of use of certain verbs, it is interesting to observe how this intertwines with the developing of the Australian society. For instance, the higher rates of verbs such as *arrive* and *depart* during the first years of the 19th century coincided with the actual departure and/or arrival of many settlers into the country, whereas the verb *pass* reached its peak between 1850-1875, a period in which the new society needed to establish a set of rules and laws –in fact, most examples of this verb are found in legal texts–. There are other verbs, such as *come* and *go*, which are high-frequency items and their use does not depend on the social and cultural background, but on the need to communicate.

The case of *go* is, indeed, unique. The fact that its combination with *be*-perfects is higher in the 20th century than in the 19th century is surprising. It could be argued that the verb *go* is widely used in narrative texts, but its nature as a basic verb of motion –apart from all its extended meanings– makes it a high-

frequency item in virtually any genre. A more in-depth analysis of its syntactic and semantic properties would be in this case more clarifying.

8. Conclusions

The present study has contributed to widen the research on AusE by carrying out a corpora analysis on the evolution of perfect tenses during the EAusE period, precisely on the choice of auxiliary verbs *be* and *have* from 1788 to 1937.

The results have confirmed the hypotheses established in Section 4, concluding that: the auxiliary verb *have* was already the primary auxiliary verb in perfect constructions; the verb *be* was still used as a perfect auxiliary verb with certain intransitive verbs; the choice of these two verbs as perfect auxiliaries follows a similar pattern in EAusE if compared to other LME varieties, especially BrE; however, the evolution of *be*-perfects in the 20th century, especially with the verb *go*, suggests that AusE may have developed its own distinctive grammatical rules.

Even though these results may help understand both the evolution of *be* and *have* as perfect auxiliaries in perfect tenses and the rise of AusE as a national standard, more research is needed. The evidence shown here just proves that *be* is still able to function as a perfect auxiliary verb during the 19th and 20th centuries. However, a quantitative analysis which included transitive verbs would provide more reliable results; these results would in turn help determine whether PDAusE has actually developed a distinctive feature in the construction of perfect tenses, as Werner (2016) suggests, or not, and, if so, when it happened. Also, a qualitative analysis of the syntactic and semantic properties of the verbs selected would help explain certain phenomena which cannot be explained otherwise, such as the high frequency of *be*-perfects with *go* in the 20th century. Finally, a comparison with a nineteenth century BrE would show the extent to which this variety of English may have influenced the development of EAusE.

Most researchers agree that AusE has developed its own distinctive features, although there is no consensus on how and when this happened. Despite the fact that studies such as the present analysis can be valuable to set the path towards more in-depth research, more diachronic analyses are needed so that a more detailed picture of AusE can be shaped. It is sometimes forgotten that, the same as humankind, the language used now is the product of years and years of evolution, and the best way to know it is to venture into the ins and outs of historical linguistics.

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