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A corpus-based study of gradual meaning change in Late Modern English¹

Abstract

The present study focuses on the analysis of a set of originally nautical terms (*aboard*, *ahead*, *aloof* and *astern*) in the Late Modern English period. Specifically, the main interest lies in showing the contribution of corpora to the analysis of meaning change. The examples containing the chosen terms were extracted from the *Corpus of Late Modern English Texts (Extended Version) (CLMETEV)*. They were all used for the first time on board ships, i.e., they were part of the nautical jargon, and their meanings were originally connected to the notions of location and/or direction. However, most of them extended their uses to other contexts because of different processes of grammaticalization and developed metaphorical extensions. The analysis of the examples as well as the contexts in which they appeared was followed by a series of statistical analyses to compare the evolution of the meanings and the frequency of usage of the different words. The results show that, in general, whereas at the beginning the literal original meanings of the words were more frequently present, towards the end of the period they had already achieved the range of meanings that can be found in the *Oxford English Dictionary* and even others not present in it. Also, their presence was restricted to very specific texts, mainly connected to the world of the sea, in the early 18th century, whereas later on in the period most of the texts included in the corpus contained at least one

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of the terms. Finally, it can also be observed that towards the end of the period some collocations between the chosen terms and some verbs become gradually closer and, therefore, more grammaticalized.

1. Introduction

The *Oxford English Dictionary (OED)* (Simpson/Weiner 1992) provides us with the examples showing the first written instances of the different meanings of words in the English language. As the language is constantly changing, the dictionary is gradually updated to show these changes. However, when analysing meaning change, because the updating process can be slow, corpora can provide a clearer insight into the reasons for these changes as well as into the contexts where the new meanings first appeared. Therefore, a combination of both, the *OED* and corpora, will prove essential in any study of English language meaning change.

The use of corpora to analyse language evolution and meaning change has been common practice in the last few decades (Facchinetti/Rissanen 2006; Nevalainen et al. 2008; Claridge 2010). However, the Late Modern English (LModE) period (18th and 19th centuries) has been slightly neglected in historical linguistics if compared to the previous periods of the language. As a consequence, studies concerning the language of that period (Beal 2004; Tieken Boon van Ostade 2009; Barber et al. 2009), as well as the production of corpora (*A Corpus of Late 18th Century Prose* (Denison/van Bergen 2003); *The Corpus of Late Modern English Texts (Extended Version) (CLMETEV)* (De Smet 2006)) containing texts dating from that time have only gained interest in the last decade. Although it is a period in which many grammatical aspects were already very similar to those of Present Day English (PDE), in the LModE period many words developed new meanings and there was a growth in vocabulary thanks to several factors external to the language itself, such as the Industrial Revolution.

The aim of the present study is to analyse the changes of meaning experienced by four originally nautical terms, namely, *aboard*, *ahead*, *aloof* and *astern*, in the LModE period, more precisely, to focus on the contribution of corpora to the analysis of meaning change, as opposed to the use of the *OED* alone.

The four terms chosen for the purpose of this analysis share some grammatical features. They all contain the prefix *a-* (/ə/), which derives from the Old English (OE) preposition *on*, and a noun related to one physical part of a ship (*board*, *head*, *stern*) or something in its immediate physical space (*loof*). In addition, the four prefixed forms are present in similar syntactic contexts, that is, they very often function as locative complements accompanying verbs of either motion or location, such as *go* or *be*.

Since these terms were all used for the first time on *board* ships, i.e., they were part of the nautical jargon, their meanings were originally connected to location or movement in relation to a ship. They all developed metaphorical extensions and extended their uses to other contexts because of different processes of grammaticalization. The new, more abstract meanings began to appear in the 18th century, with the exception of *aloof*, which had already developed metaphorical meanings in the Early Modern English (EModE) period (which extends from the end of the 15th century to the end of the 17th century).

Even though the set of words analysed in this study is very limited, it shows some patterns of usage and meaning change that can be applied to other related words that may share some grammatical features with them. They include terms such as *aback*, *afore*, *athwart*, *before*, which also contain a prefix, either *a-* or *be-*, and have undergone similar processes of language change that have resulted in meaning changes and/or meaning extensions (e.g., *aback* originally had a physical sense in relation to “motion backwards” and in the 19th century it began to be used to mean ‘surprised’, particularly in the expression *taken aback*, as it developed a new figurative meaning (*OED*)).

1.1. *The original meanings and the new meanings*

Giving the date of the first time a word has ever been used is almost an impossible task, since it may have been used orally for a long time before it was actually written in a non-private text such as a novel. This is one of the reasons why giving the first attested usage of a word is not easy. However, the *OED* attempts to do this by providing examples of any word being used as early as records have been found.

Stating the original meaning of any given word is not always easy either. This is particularly evident when a word is polysemous and its origin is not clear. However, in most cases an etymological analysis of a word usually contributes to the clarification of its original more basic meaning. The etymological orientation of the *OED* makes it an invaluable source for the discovery of the primary meaning of any word.

The *OED*'s definitions of the original meanings of the four selected terms, as well as the date of the first example recorded with those meanings, are as follows:

- *Aboard* (1494): “on one side (of a ship² or shore)”.
- *Ahead* (1596): “in a position or direction pointing forward”.³
- *Aloof* (1532): “away, to the windward from within a ship”.
- *Astern* (1627): “in the rear, behind (at any distance)”.⁴

As can be observed, they all refer to either location or motion in relation to a ship. Although apparently clear, these definitions are slightly vague, as they refer to a very wide and not very well defined location.

These four words developed some new meanings, most of which are included in the *OED*.⁵ The new meanings relevant for this

² Where *board* refers to the planks on the sides of the ship.

³ From within a ship.

⁴ In relation to the *stern* of a ship.

⁵ Some of the meanings found in some examples in the corpus were not present in the *OED*, as will be pointed out accordingly.

study⁶ as well as the dates of the first examples of them provided by the *OED*⁷ are as follows:

- *Aboard*
 - a) (1855) “in or into a train, also on or in(to) an aircraft, etc.”.
- *Ahead*
 - a) (1825) “in advance of” (in a figurative sense).
 - b) (1900) “used temporally: in or for the future; in advance”.
- *Aloof*
 - a) (1540) “away at some distance”.
 - b) (1583) “without community of action or feeling”.

A closer analysis of the meanings of the nouns forming these words will help to clarify these original meanings and contribute to a better understanding of why they have undergone the specific metaphorical extensions that were already present in LModE.

1.2. *The meanings of the nouns board, head, loof and stern*

As the definitions of the four prefixed words offer some ambiguity, it is necessary to analyse the meanings of the nouns to which *a-* was prefixed. At first sight, these nouns appear to be complex. *Board* and *head* are polysemous, whereas *loof* and *stern* have other forms of complexity. These features will be essential to understand the evolution of the metaphorical meanings of the prefixed forms.

Board is not a term used exclusively in the nautical jargon. Its meaning is broad, as it may refer to any type of plank. This means that, apart from being used in relation to the planks that form the deck or the hull of a ship, it is also used in relation to the top part of a table

⁶ The meanings that are relevant for this study are those found in the examples extracted from the corpus, as will be analysed below.

⁷ *Astern* is not included in this list because the *OED* does not make it clear whether any of the meanings might imply the use of *astern* in relation to other means of transport apart from ships, as will be explained below.

or any other object containing a long flat piece of wood. When the combination *aboard* appeared for the first time, according to the definition given by the *OED*, it seems that the noun *board* referred to the planks forming the hull rather than the ones forming the deck. However, it is arguable that this meaning of *board* can be challenged, since being *on board* (*aboard*) could literally refer to being physically located “on the boards”, that is, on the planks forming the deck. If this was the case, it might be easier to understand the extension of *aboard* to other means of transport, in which one is located definitely on something and not necessarily surrounded by any structure. Furthermore, some of the more metaphorical expressions of *aboard*, such as *have too much drink aboard* or *take something aboard* (or *on board*), may have also been influenced by the meaning of *board* in relation to the top of the table.

Similarly, *head* is not a maritime term in itself. Although the combination *ahead* was first used on board ships, the noun *head* was already being used metaphorically in this prefixed form because it referred to the front part of the ship, by extension of the body part. There are two possible explanations for this. First, many of the large ships in the 16th century had a figure-head located in the very front part of the ship; secondly, the ship resembled a fish opening the sea with its *head*, its front part (Smyth 1867: 374). Both interpretations indicate that the *head* actually referred to something that was located in the external front part of the ship, which explains the fact that, when indicating that something is *ahead* in relation to somebody located inside a ship, it is never inside, but outside the ship. The more abstract and metaphorical meanings that *ahead* developed later always refer to something external as well.

The term *loof* is more complicated to analyse. It does not refer to a specific position either in relation to a ship or to anything else; it is used for a much less definite area, since it refers to “the place where the wind comes from”, which is a variable location. In addition, the etymology of *loof* (*luff*) is complex. The *OED* states that its origin is uncertain and might have been incorporated into English from either Dutch or French, and its original meaning is not clear either. These factors have probably contributed to the meaning of the term *aloof*, which does not have a fixed location in relation to a ship, but depends

on the area from which the wind comes. As regards the more metaphorical meanings of *aloof*, they can easily be understood when the original meaning is interpreted as ‘away’, which clearly points at being at a distance.

The meaning of *astern* also needs to be clarified by analysing the meaning of the noun *stern*. The etymological information provided by the *OED* is very clarifying. If it is considered that the original meaning of *stern* probably derived from the Old Norse form for the tiller, the situation is very similar to the one explained for *ahead*, i.e., the original meaning of *astern* would be connected with something located outside the ship, and never inside. However, as opposed to *ahead*, *astern* did refer to location inside the ship as soon as the word appeared, because the meaning of *stern* had already been extended to refer to a wider area, which included the inside part of the rear of the ship. This explains the definition given by the *OED* for *astern* (s.v. *astern*, A. adv. 2): “in the rear, behind (at any distance)”, where the preposition “in” is used.

1.3. Processes involved in the appearance of the new meanings

It is clear that the meaning of the nouns joining the prefix *a-* had a very powerful influence on the development of all the meanings of the new prefixed forms, both the original literal ones and the more abstract and metaphorical ones.

However, the appearance of the new prefixed terms, as well as the semantic extensions, involved several typical processes of language change, which include lexicalization and grammaticalization.

Although both lexicalization and grammaticalization arise in “the spontaneous and productive combination of lexical items in discourse” (Himmelmann 2004: 36), they refer to different phenomena. However, according to Lehmann (2003: 17), both imply reduction and they can “occur jointly in a given case” (Lehmann 2003: 18), with lexicalization taking place first, as Rostila (2004: 1) also indicates.

The terms analysed in this paper underwent a lexicalization process before becoming more grammatical elements, and, therefore, before being used in different syntactic structures with different meanings.

The process of lexicalization that these terms underwent should be understood as “the change whereby in certain linguistic contexts speakers use a syntactic construction or word formation as a new contentful form with formal and semantic properties that are not completely derivable or predictable from the constituents of the construction or the word formation pattern” (Brinton/Traugott 2005: 144). It is important to emphasize that it is not only one element that lexicalizes, but a whole structure, which is reinterpreted as a new lexical unit.

This process took place at a very early stage, when the prepositional phrases “on *board*”, “on *head*”, “on *loof*” and “on *stern*” became new lexical items and started appearing in the early dictionaries under their own entries (e.g., Barlow 1772 and Ash 1795). The original OE preposition *on* (later reduced phonologically to /ə/) joined the noun that was functioning as its complement. Therefore, the syntactic construction, that is, the prepositional phrase, was not interpreted analytically, but holistically (Lehmann 2003: 2), as a whole new unit, which gradually began to be used in other contexts. The new words were originally considered adverbs, but they soon started to be followed by complements, which means that they could then be analysed as prepositions (following the traditional distinction established between adverbs and prepositions, as explained below). These extensions to other categories of words together with the development of more abstract meanings are an indication that a process of grammaticalization was already happening in the LModE period.

Brinton/Traugott (2005: 145) define grammaticalization as “the change whereby in certain linguistic contexts speakers use parts of a construction with a grammatical function”. This process is, therefore, pragmatically driven and according to Lehmann (in Roberts/Roussou 1999: 1012) it involves *attrition*, that is, the element loses semantic and phonological content; *condensation*, which explains why the new forms become simpler in terms of the complementation they can take;

paradigmatization, that is, the reduction of the grammaticized forms to morphology-like material; *coalescence*, which implies that often free morphemes become bound morphemes; *obligatorification*, that is, the new grammaticalized forms are required by the syntactic structure, unlike lexical items; and, finally, *fixation*, which means that elements that undergo grammaticalization usually appear in fixed positions either in the syntactic or morphological structure.

The four words analysed here experienced loss of semantic content. For example, the meaning of *aboard* in *she stepped aboard*⁸ is semantically richer than the meaning of *aboard* in *all aboard the train*, since in the former example *aboard* still maintains the original meaning of *board*, either “the planks that formed the deck of the boat” or “those surrounding the boat forming the borders of it”, whereas in the second example it has lost that original meaning. The type of complementation they can take is also very limited, for instance, *aloof* is always followed by the preposition *from* when it has a complement, as in *he stood aloof from us*. They also become obligatory elements in the syntactic structure of statements indicating motion situations (e.g., *he came aboard*) or more metaphorical expressions (e.g., *they were ahead of us*, where *ahead* is referring to time), where they have a fixed position, after the verb.

The category of the prepositions has traditionally been considered much more grammatical than the category of adverbs, due to semantic and syntactic reasons. Some prepositions hardly contain lexical meaning (e.g., *by*, *of*, *for*, *to*) and their main function is syntactic (van Gelderen 2002: 19), that is, they serve to introduce different types of complements in the sentence (e.g., *the book was written by Smith*, *the leg of the table*, *these flowers are for you*, *he gave the letter to me*). In addition, prepositions have always been considered to require a complement (*Smith*, *the table*, *you*, *me*). On the contrary, adverbs are usually richer in semantic content (e.g., *beautifully*, *clumsily*, *fast*) and they do not require a complement, unlike prepositions. However, the prepositions analysed in this paper have much more lexical content, which is even more evident when

⁸ All examples not including a bibliographical reference have been made up by the author to clarify different aspects.

they are used without a complement (e.g., *he climbed aboard, they went ahead*). As Déchaine (2005: 4) points out regarding the “status of prepositions with respect to the open-class/closed-class distinction”, prepositions belong to a “borderline category” since they share features of both word-classes.

The obligatoriness of the presence of a complement, as has been pointed out, has been a traditional argument to distinguish adverbs from prepositions (Burton-Roberts 1992: 167). This was already present in grammars of the 18th century, such as Lowth (1762: 6, 64) and was maintained in 19th century grammars (Latham 1855: 321; Adams 1858: 78). Also, manuals published in the 20th century clearly stated that prepositions had little lexical content and had a connective function (Funk and Wagnalls 1953: 3; Whitehall 1958: 53) As opposed to that, the present-day distinction between transitive and intransitive uses of prepositions (Radford 1997: 269; Lee 1999: 136; Huddleston/Pullum et al. 2002: chapter 7) can be applied to these four terms. They function intransitively when they are not followed by any complement, as in *he went aboard*, whereas their function is transitive when a complement stands next to them, as in *he went aboard the boat*. The four prepositions show differences in relation to the type of complement following them. While *ahead* and *astern* are complemented by a prepositional phrase introduced by *of* (*ahead of us*), *aloof* is also followed by a prepositional phrase, but introduced by *from* (*aloof from them*), and *aboard* takes a noun phrase as its complement, as in the example just mentioned, *he went aboard the boat*. These differences are part of another ongoing survey and they go beyond the scope of the present study; for this reason they will not be analysed here.

The new meanings and the new syntactic functions did not develop very quickly. This was mainly due to the fact that the prescriptive grammarians in the 18th century condemned the usage of these *a*-prefixed words because they considered them the result of “familiar” and “not very careful” speech, as Lowth (1762: 65) clearly stated in his grammar. On the contrary, in the 19th century the

presence of these forms boomed⁹ as the grammar books of that time did not follow the condemnatory practices that the previous grammarians had expressed. It is also the century in which there seems to have been a great interest in these prefixed forms in general, as shown by the amount of articles written specifically on these words (Piltz 1851; Regel 1855; Asher 1874; Skeat 1874). Figures 1, 2, 3 and 4 confirm the growing usage of the *a-* prefixed words in the 19th century.

Despite sharing a similar morphological evolution, the four words did not develop the same metaphorical extensions.¹⁰ However, all of them clearly extended their meanings beyond the physical locative or directional senses they originally had. In addition, whereas *aloof* acquired an abstract meaning at a very early stage—almost as soon as the new term was created—, *aboard* and *ahead* took longer to extend their usage to other contexts. *Astern* proves to be more limited in its development because it is hardly ever used outside the maritime contexts. The different meanings and the development of the metaphorical extensions will be analysed further in §3.

The definition of *metaphor* varies according to different authors. In the present paper *metaphor* is understood as “the use of language to refer to something other than what it was originally applied to, or what it ‘literally’ means, in order to suggest some resemblance or make a connection between the two things” (Knowles/Moon 2006: 3). This is a very broad definition, since it encompasses almost any change of meaning within a given word, that is, processes such as metonymy and generalization could be included under this definition as well. While all the terms chosen seem to have undergone a similar process of lexicalization and grammaticalization, not all of them have experienced great variation in terms of meaning.

⁹ The present study is part of a larger one including more maritime terms that support this tendency. As for other *a-*prefixed words, a study by Newmann (1943) confirmed the increase in the number of these words in the 19th century. He also indicated that “some of the words which appear for the first time in the nineteenth century literature may have existed in colloquial or dialectal speech earlier, but were unrecorded in literary documents” (Newmann 1943: 281) due to the influence of 18th century grammarians.

¹⁰ As could be seen in §1.2. and will be further explained in §3.

Therefore, this definition proves appropriate for the analysis of the meaning changes of the four words.

As will be explained in §3, the terms that seem to have developed more abstract and metaphorical meanings are *ahead* and *aloof*, whereas *aboard* and *astern* extended their original meanings to places outside the sea, but did not acquire very figurative meanings (with the exception of *aboard* in *having drink aboard*; see §3.1). One of the most significant of these abstract meanings, shown by *ahead*, is the “space-to-time extension”, which is a clear example of a metaphorical extension that has been repeatedly described in the literature (Lakoff/Johnson 1980; Kövecses 2002; Knowles/Moon 2006).

Finally, towards the end of the LModE period, new processes of lexicalization can be observed, since there are new combinations of lexical items that seem to behave as one lexical unit, as is the case of *all aboard* and *go(-)ahead*. The former seems to be frequently used in connection to trains, whereas the second one does not seem to be fully established in the LModE period in so far as it shows variation in form, which includes *going-ahead* and *go ahead*. In these expressions the *a-* prefixed words seem to be the ones that carry the semantic meaning. In the case of *all aboard* there appears to be a verb missing—*come*—and it seems as if *aboard* is actually taking on the function of both the verb and its complement. As for *go(-)ahead*, despite the fact that there is a lexical verb in the structure—*go*—, this also seems to have lost most of its lexical content in favour of the content of the preposition *ahead*. They are both frequent expressions in Present-day English and *go(-)ahead* is even becoming more and more grammatical, since it is extended to other categories of words, such as nouns, as evidenced by examples from the *British National Corpus (BNC)* (e.g., “Finally I was given the *go ahead* and everything was resealed”—CLT 1444; “now we’ve got the *go ahead* for the new chiller”—JTC 150). However, this will not be dealt with in the present paper as it goes beyond the scope of this topic.

2. Methodology

The four terms selected for the present study were analysed both indirectly, in the definitions provided by the *OED*, which contributed to the clarification of meanings in general, and directly, in the examples extracted from the *Corpus of Late Modern English Texts (Extended Version) (CLMETEV)* (De Smet 2006).

The *OED* was used to check, first of all, all the different meanings that the chosen terms had and, secondly, to observe the approximate period in which these different meanings may have appeared for the first time. The dates showed that two of the chosen terms, *aboard* and *ahead*, had developed metaphorical extensions in the LModE period (in the *OED*, the first example of *aboard* used in relation to another means of transport is from 1855, whereas the first example of *ahead* used with a temporal meaning is from 1900). They also showed that *aloof* had acquired more abstract meanings in the previous period, i.e., the EModE period (the first example of *aloof* used in the sense of distance in relation to feelings is from 1583), whereas in the entry for *astern* no metaphorical meanings were present at all.

The LModE period coincided with the Industrial Revolution, a time in which ships were already developing new means of power of propulsion, such as steam, with a consequent decline in the use of sail power, resulting in a decrease in the evolution of the terminology directly related to wind in the nautical jargon.

For all these reasons, we considered it more appropriate to choose a LModE corpus to analyse these terms. The *CLMETEV* includes some specific maritime works, such as *Captain Cook's Journal* (1768–1771) or *The Life of Horatio Lord Nelson* (Southey 1813), but it also includes many novels and essays on a great variety of topics. The contents of the corpus together with the fact that the total number of words amounts up to almost 15 million contributed to its choice as opposed to other corpora of the period (e.g., *A Corpus of Late Modern English Prose*, which contains 100,000 words; *A Corpus of Late 18th Century Prose* (Denison/van Bergen 2003), which

includes 300,000 words for the period 1761–1789; the *Corpus of Nineteenth-century English*, which only covers the second half of the period and contains 1,800,000 words), all of which, as indicated above, are fairly restricted.

The *CLMETEV* is divided into three sub-periods (1710–1780, 1780–1850 and 1850–1920), each of which contains a different number of words. For this reason the figures obtained had to be normalized in order to achieve significant results. Also, whereas *ahead* is more frequent and it is present in a wider variety of texts, *aboard*, *aloof* and *astern* are less frequent and more restricted in terms of the types of texts in which they appear. The total number of examples for the whole period is as follows: *aboard* 99, *ahead* 336, *aloof* 101 and *astern* 41. Table 1 shows the total number of instances and the normalized frequency (NF) per million corresponding to each period.

PERIOD	<i>Aboard</i>		<i>Ahead</i>		<i>Aloof</i>		<i>Astern</i>	
	TOTAL	NF	TOTAL	NF	TOTAL	NF	TOTAL	NF
1710–1780	7	2.4	58	19.9	1	0.3	5	1.7
1780–1850	12	2.1	43	7.6	56	10.1	20	3.5
1850–1920	80	12.7	235	37.5	44	7	16	2.5

Table 1. Number of examples found in the corpus

All the documents in the *CLMETEV* are stored individually within each of the periods. This means that the collection process involved having to check all four words in each of the documents. In addition, these four words originally developed from the prepositional phrase “*on + noun*”, later “*a + noun*”, which implied that there might be three possible spelling representations for each of the words, namely, *aboard*, *a-board* and *aboard*. The three possibilities were checked in the corpus, which led to the gathering of the total number of examples mentioned above.

3. Results

3.1. Meanings of the four terms found in the CLMETEV

The four terms chosen for the present study show a wide range of meanings in the examples found in the *CLMETEV*, some of which are not included in the *OED*. Most of the original meanings of the words are also present in the examples extracted from the corpus, with the exception of *aloof*, which does not appear in any maritime contexts at all, as the figures show (see 3.2.). Although in most examples the four words had a clear meaning, some ambiguity was also found. Examples were grouped according to their meanings and the results are shown below in the figures and tables in this section.

The meanings conveyed in the examples found in the *CLMETEV* are the following:¹¹

- *Aboard*
 - a) Location on ships, boats or vessels (“he was *aboard* a ship”).
 - b) Location on other means of transport (“all *aboard* for the Western cars”).
 - c) Location inside the body* (“having more courage or more wine *aboard* than the rest”).¹²
- *Ahead*
 - a) Physical location in relation to the sea (“we saw the Land *ahead*”).
 - b) Physical location in other places out of the sea (“four others, who had previously dashed on *ahead* on horseback”).

¹¹ The meanings are listed from the most original (the nautical meaning), physical and literal one to the most metaphorical one. Those that are not found in the *OED* are marked with an asterisk (*). The definitions belong to the author of the article and the examples accompanying each definition have been extracted from the *CLMETEV*.

¹² This meaning is present in Wright’s dialectal dictionary (1961: 8), which clearly indicates this is a regional variety of a particular coastal area (Devon and Lincolnshire).

- c) Future time (“I pick up an independence for the days *ahead*”).
- d) Figurative location, that is, in relation to being advanced in abstract contexts (“she is *ahead* of us in knowledge”).
- *Aloof*
 - a) Physical location in other places out of the sea, usually indicating where people are located in relation to other people (“the men all stood *aloof* to watch”).
 - b) Figurative location, with the idea of being distant emotionally (“in order to be *aloof* from the discontent of the capital”).
- *Astern*
 - a) Location behind the ship, attached to the rear external part of the ship (“a spar which he towed *astern*”).
 - b) Location about the *stern*, anywhere in that part of the ship (“to stand as far *astern* as possible and look over the side from the top deck”).
 - c) Location behind the ship, not attached to it, at any distance as long as it is more or less on a direct line with the ship (“the iceberg had floated away *astern*”).
 - d) Location behind other objects*. This particular meaning is only present in a few examples in relation to horses (“My companions, though seemingly gaily mounted, fell sadly *astern*”).¹³

In addition to these meanings, some of the examples containing *ahead* and *aloof* could not be included in any of the groups because the meaning was considered ambiguous. When the full context was analysed, the meanings remained ambiguous and, therefore, they were included in a separate group, as shown in figures 2 and 3. One

¹³ The *OED* does not provide any examples of *astern* being used in a non-maritime context and it does not clearly specify if *astern* could be used in other contexts. It simply says “in the rear (of a ship)”, which can be interpreted, from the use of parentheses, as if it could appear in other contexts, but is most likely to be used in relation to a ship.

example of these is “I sent a Boat *a Head* to sound”,¹⁴ where “a boat” could have been sent physically in front or earlier in time, before the ones who were in the boat who sent it arrived at the place where it was sounding. Another example showing ambiguity is “he stood *aloof* from the Emperor and all his works”, where it is not clear whether “he stood” separated from the Emperor only physically and from what he was doing or whether “he” simply did not want to get involved with anything concerning the Emperor, which implies a more metaphorical meaning.

Figures 1, 2, 3 and 4 show the presence of the different meanings in the three sub-periods of the corpus. Tables 2, 3, 4 and 5 include the total number of examples of each meaning in each period as well as the corresponding normalized figures (per one million words). As can be observed in general, whereas at the beginning of the period the literal original meanings of the words were more frequently present, towards the end of the period they had already achieved the range of meanings listed above.

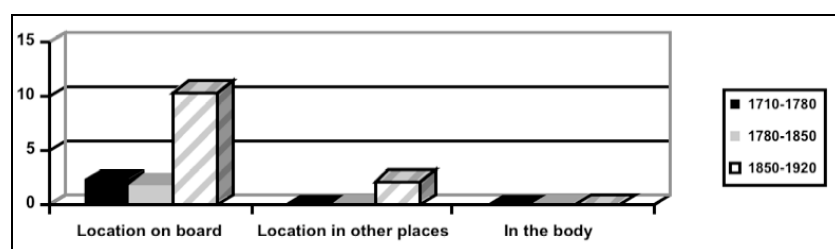
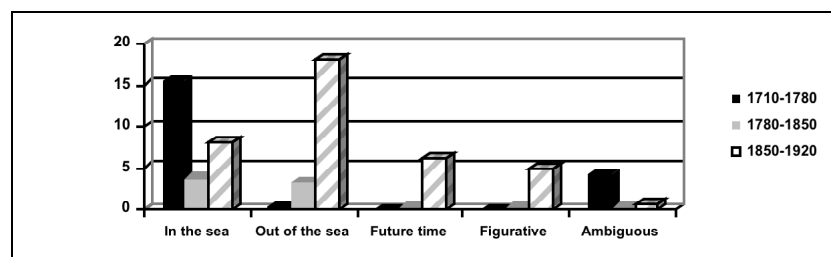


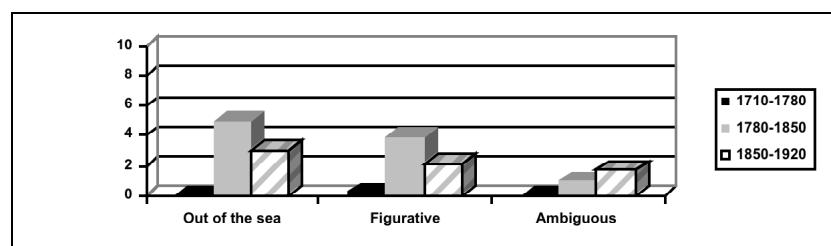
Figure 1. Distribution of the meanings of *aboard* found in the *CLMETEV*

¹⁴ The spelling shown in the examples extracted from the corpus may show some variation in relation to standard spelling. The reason for this is that the spelling has been kept as it appeared in the corpus.

PERIOD	TOTAL (A) ¹⁵	NF (A)	TOTAL (B)	NF (B)	TOTAL (C)	NF (C)
1710–1780	7	2.4	0	0	0	0
1780–1850	11	1.9	0	0	1	0.1
1850–1920	66	10.5	14	2.2	0	0

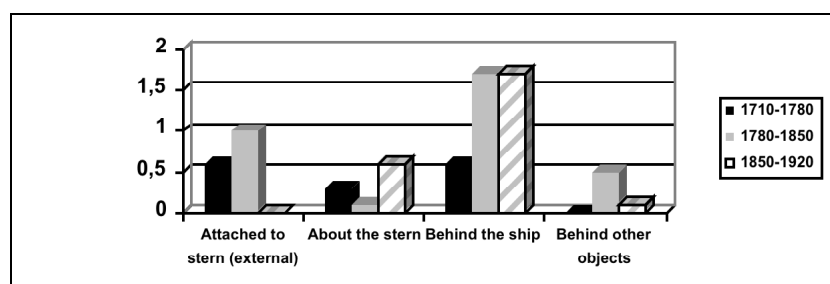
Table 2. Examples of *aboard* in the *CLMETEV*Figure 2. Distribution of the meanings of *ahead* found in the *CLMETEV*

Period	TOTAL (a)	NF (a)	TOTAL (b)	NF (b)	TOTAL (c)	NF (c)	TOTAL (d)	NF (d)	TOTAL (Amb)	NF (Amb)
1710–1780	45	15.4	1	0.3	0	0	0	0	12	4.1
1780–1850	21	3.7	19	3.3	1	0.1	1	0.1	1	0.1
1850–1920	51	8.1	113	18	38	6	29	4.7	4	0.7

Table 3. Examples of *aloof* in the *CLMETEV*Figure 3. Distribution of the meanings of *aloof* found in the *CLMETEV*

¹⁵ The bracketed letters correspond to the meanings that have been listed above. Tables 3 and 4 include a final group with the figures corresponding to the ambiguous examples (Amb).

PERIOD	TOTAL (a)	NF (a)	TOTAL (b)	NF (b)	TOTAL (Amb.)	NF (Amb.)
1710–1780	0	0	1	0.3	0	0
1780–1850	28	5	22	3.9	6	1
1850–1920	19	3	14	2.2	11	1.7

Table 4. Examples of *aloof* in the *CLMETEV*Figure 4. Distribution of the meanings of *astern* found in the *CLMETEV*

Period	TOTAL (a)	NF (a)	TOTAL (b)	NF (b)	TOTAL (c)	NF (c)	TOTAL (d)	NF (d)
1710–1780	2	0.6	1	0.3	2	0.6	0	0
1780–1850	6	1	1	0.1	10	1.7	3	0.5
1850–1920	0	0	4	0.6	11	1.7	1	0.1

Table 5. Examples of *astern* in the *CLMETEV*

As regards the types of texts in which they appear, their presence is restricted to very specific texts, mainly connected to the world of the sea in the early 18th century, whereas towards the end of the 19th century most of the texts included in the corpus contained at least one of the terms.

In addition, *aboard* and *ahead* also begin to appear in combination with other words, such as “all *aboard*” and “go *ahead*”. These collocations show a closer relationship at the end of the period, when they seem to be fully lexicalized as new lexical units and begin to acquire a more grammatical function, as for example the form “going *ahead*”, which appears functioning as an adjective (e.g., “It [the city of Buffalo, USA] is very going *ahead*”, which appears in *The*

Englishwoman in America, written by Isabella Bird in 1856 and included in the *CLMETEV*).

3.2. Results word by word

3.2.1. Aboard

In the first sub-period the examples found in the corpus correspond almost exclusively to *Captain Cook's Journal* (1768–1771). As the period advances, there is a clear growth in usage of all meanings. When other means of transport, such as the train, become common, during the 3rd sub-period (1850–1920), *aboard* began to be used for location outside a ship. Therefore, we can find examples such as “cars for Buffalo, all *aboard*”,¹⁶ which clearly refers to a different type of transport. This could be understood as a process of generalization, since the usage of *aboard* is simply extended from one means of transport to another. The same would happen when other means of transport, such as the plane, become frequent and available to more and more people.

As regards the meaning found in relation to “in the body” (“having more courage or more wine *aboard* than the rest”), this is restricted to one single example and the extension seems to have been triggered by sociolinguistic aspects, more precisely, by the intake of alcoholic drink by sailors, particularly when they spent some time in the taverns in port areas. As mentioned above, the polysemous meaning of the noun *board* might have triggered these metaphorical extensions as well, since they may have developed from the meaning of *board* as the top of the table, where the drinks would have been located in those taverns, or from the fact that the sailors had bottles of alcoholic drinks on *board* ships, or even a combination of meanings. It is, however, essential to remember that this is not a very common expression and is restricted to some geographical dialects, as pointed out before.

¹⁶ All the examples included in this section have been extracted from the *CLMETEV*.

Whereas the *OED* provides information about the usage of *aboard* in relation to other means of transport and the dates provided coincide in time with the examples found in the corpus (the first example found in the *OED* in relation to other means of transport dates from 1855 and the examples found in the corpus are all from 1850 onwards), there is no indication at all about the other metaphorical meaning found in relation to “having drink in the body”. This is probably due to its restriction in usage to specific dialects spoken in ports (Wright 1961: 8).

3.2.2. Ahead

Like *aboard*, in the first sub-period, *ahead* also appears almost exclusively in *Captain Cook’s Journal* (1768–1771). Similarly, it also experiences a clear growth in usage in all meanings in the third sub-period. From the second sub-period onwards an extension of the “physical location in relation to the ship” to other locations can be observed (e.g., “he [a mouse] gets so much *ahead* of them that he eats them up before they can again overtake him”). Again, this could be interpreted as a case of generalization rather than as a metaphorical process as such.

As regards its temporal metaphorical extension, already in the 19th century there are some clear examples in the corpus that show that meaning (e.g., “I place myself at a distance of fifteen or twenty years *ahead* of this time”, which appeared in the novel *Confessions of an English opium-eater* (1822), written by Thomas de Quincey). The new meaning begins to appear in some ambiguous examples in the first sub-period. At the beginning of the LModE period there were some examples in the corpus which showed some ambiguity since they could either indicate *ahead* in space or *ahead* in time, such as in “send a boat *ahead* to sound” (Cook 1768–1771), as was described before. These ambiguous examples are essential to understand the evolution that the term experienced in relation to the development of a temporal meaning.

The first usage dates in the *OED* are different from our results, particularly as regards the temporal meaning, since the first example provided by the *OED* of *ahead* in relation to future time dates from

1900, whereas the first example with this sense found in the corpus dates from 1822, as mentioned above, leaving aside the ambiguous examples from the first sub-period, which were already pointing to that direction.

3.2.3. Aloof

The evolution of *aloof* is different from the evolution of the two terms examined so far. The first examples found in the corpus belong to the end of the 18th century. In addition to this, none of the examples was connected to the “sea”, that is, none of them referred to the original physical nautical meaning of the term. Basically, the meaning that is most frequently present in the corpus is ‘distant’ in relation to people, not only in a physical sense (e.g., “the ladies held *aloof* from her”), but also in a more metaphorical one (e.g., “Marcella held herself *aloof* and cold”).¹⁷ Once again, there seem to be a few ambiguous examples which could either mean ‘distant’ both in a physical and in a metaphorical sense or simply one or the other, but even the more extended context does not clarify the definite meaning, as indicated above.

It is also a term whose usage decreased over the whole period of LModE. However, all the meanings that the *OED* provides seem to have been clearly represented in the examples found in the second sub-period (1780–1850).

The Industrial Revolution may have had an influence upon the evolution of this term. The arrival of the steam engine meant the decline in the importance of sails and the wind to move ships. As a consequence, terms that were highly connected to the wind and its influence on the sailing activity may have been affected by such an appearance, which is reflected in the decrease in usage of *aloof* along the LModE period.

The information found in the *OED* coincides with the information provided by the corpus in terms of the appearance of the new meanings, as well as the lack of examples particularly for the 17th and early 18th centuries. Since these terms had developed new

¹⁷ These last two examples may look ambiguous to some extent, but the more extended context clearly indicates what they refer to.

meanings in a period earlier than the one represented in the corpus, a closer look at examples extracted from an EModE corpus would provide a clearer insight in the evolution of *aloof*.

3.2.4. Astern

The results of the examples found in the corpus containing the term *astern* show that it is a term whose usage decreases along the period. As opposed to the rest of the terms analysed in this study, it is the only one whose meanings are less metaphorical and the only one that is restricted to maritime contexts basically, as indicated above. It is also the only term whose meanings are all physical and refer to location or direction.

The fact that its original meaning gradually began to disappear in favour of a much wider meaning in relation to a position anywhere in the *stern* or behind the boat may have contributed to the appearance of the term in other contexts. However, the presence of *astern* in such metaphorical contexts is restricted to very few examples, all of them meaning “behind a horse”. As in the case of *aboard* used in relation to other means of transport or *ahead* used to refer to location in front in other places out of the ship, this meaning of *astern* may also be understood as a process of generalization of the original meaning. The meaning of the noun, *stern*, has remained linked to the nautical context. Even though its meaning is very similar to *ahead*, though denoting the opposite direction of the ship, *astern* has not experienced the same kind of metaphorical extensions, related to time, as *ahead* has. One reason might be that the metaphorical meanings of the noun *head* were already fully established when it joined the prefix *a-*. Another reason is the fact that the word *head* is much more frequently used in a wider variety of contexts than *stern*, as shown by the whole range of meanings given for *ahead* in the *OED*. The first examples of *head* with a metaphorical meaning date from the end of the 14th century according to the *OED*, whereas the first example of *ahead* provided by the *OED* is from 1596. On the contrary, the first example of *astern* present in the *OED* dates from 1627, whereas the first and few metaphorical examples of *stern* given by the *OED* are from the end of the 16th century. Therefore, although this might imply that

stern was already used metaphorically before it joined the prefix *a-*, the number of metaphorical examples is much smaller than that of the metaphorical examples of *head*, and in terms of time it does not take long for the prefix to join the noun. The writers of the novels from which the examples in relation to a horse were extracted may have simply used the term *astern* instead of “behind” for a matter of poetic licence and to call the reader’s attention.

The *OED* does not clarify whether the term *astern* is used exclusively in the nautical jargon or not. However, all the examples provided belong to a maritime context (e.g., “part of which they put into the boat, and the remainder they towed *astern*”). At the same time, the dates of all the examples given by the *OED* for the different meanings (17th and 18th century) are earlier than those of the examples found in the corpus, which explains the presence of most of the meanings already from the beginning of the LModE period.

4. Discussion

The evolution of the prepositional phrases from which the four chosen terms derived was very similar in the first stages, that is, the phrases became new lexical units due to a process of lexicalization. As has been explained, they developed different meanings and different syntactic categories, which appear to be the direct consequence of several processes of grammaticalization and metaphorical extension. However, they seem to have followed different patterns in this respect. Some of them, more specifically *ahead* and *aloof*, have acquired more abstract meanings, whereas *aboard* and *astern* seem to be much more restricted as regards the contexts in which they are used, while retaining a closer connection to their original physical meaning. Both the corpus and the *OED* confirm this. Also, the two sources point at the fact that the new meanings arose along the LModE period, with the exception of *aloof*, which had acquired a more abstract meaning in the previous period.

Nevertheless, there are some differences between the information contained in the *OED* and the data drawn from the examples found in the corpus, which are summarized in table 6.

SOURCE	<i>Aboard</i>	<i>Ahead</i>	<i>Aloof</i>	<i>Astern</i>
<i>CLMETEV</i>	One example where <i>aboard</i> means ‘in the body’	First example referring to time dated 1822	No examples in a ‘physical maritime context’	Four examples ‘out of’ a maritime context
<i>OED</i>	No entry for ‘in the body’ meaning	First example referring to time dated 1900	All the meanings present in the examples of the corpus, as well as the ‘physical maritime’ one	No examples ‘out of’ maritime context and ambiguity regarding the existence of this meaning

Table 6. Differences between the *OED* and the *CLMETEV*

The *OED* provides us with the first idea regarding all the meanings and the possible dates when the different meanings appeared. As the *OED* is a dictionary, it is not expected to provide ambiguous examples. However, as indicated before, in the case of *astern*, despite giving clear examples, the information in parenthesis might suggest ambiguity, i.e., there is a possibility that *astern* might appear in non-maritime contexts, but no examples of that are included. A lot of the new meanings, with the exception of *aloof*, seem to have appeared at the beginning of the LModE period if the attention is focused on the dates of the examples provided by the *OED*.

However, when observing the examples extracted from the *CLMETEV*, ambiguous examples often appear. This means that the whole context is required to clarify the definite meaning, although, unfortunately, the context does not always contribute to the complete clarification of the meaning of all the examples, which explains why some are still included in the ambiguous group. The examination of the examples confirms the appearance of the new meanings in LModE, and the fact that *aloof* had already become metaphorical in the previous period, since no examples of *aloof* with a physical, literal meaning in the nautical context were found.

5. Conclusion

Before stressing the importance of the use of corpora, it is necessary to refer to other findings that can be drawn from this study. It is important to take into account that some sociolinguistic factors may have influenced the evolution of these terms, namely the impact of the Industrial Revolution with the appearance of new means of transport and steam as a new power of propulsion, as well as the condemnation of the *a*-prefixed forms by 18th century grammarians. The Industrial Revolution may have contributed to the expansion of the meanings of *aboard*, since it began to be used in relation to other means of transport, such as the train, and also to the decline in usage of the term *aloof* with a physical nautical meaning, after the introduction of steam. As regards the influence of the 18th century prescriptive grammarians, once the condemnation clearly shown by them disappeared in the 19th century, most *a*-prefixed terms began to appear much more regularly in all sorts of contexts, expanding their meanings and the variety of contexts in which they are present in the corpus, and showing greater usage, particularly from the second sub-period onwards.

Although there are not many unexpected results, since more abstract meanings are likely to appear later in time, some conclusions can be drawn from the analysis of the examples found in the corpus in comparison with the information offered by the *OED*.

It can be concluded that, whereas the *OED* does not provide ambiguous examples, they do exist in the corpus, and it is precisely these examples that provide very useful information for the analysis of the evolution of the different terms since ambiguity suggests the first stages of new meanings.

The corpus provided different results in relation to the dates of the appearance of some of meanings. This indicates that these meanings were already present before the dates given by the *OED*.

Some of the meanings found in the corpus for these terms are not even mentioned in the *OED*, but their presence clearly means that they were used in the period of LModE.

Although the use of the *OED* offers a base for the analysis of meaning change, it does not provide a comprehensive evolution of meaning change, whereas the corpus clearly offers a closer insight into the reality of any given period, in this particular case the LModE period. Not only does it show a great variety of examples, but it also provides the whole context, which on some occasions proves essential to understand the real meaning of the example. Unfortunately, some ambiguous cases remain as such.

Because corpora give the context of word usage, as opposed to a dictionary's precise definitions, these findings are not surprising. They confirm the importance of the use of corpora in any analysis of semantic change. Furthermore, they show the need for a greater variety of corpora of LModE in order to carry out all sorts of linguistic analyses.

The 19th century examples extracted from the corpus also show a tendency towards the creation of lexical items in combination with some of these terms, namely, *all aboard* and *go(-)ahead*. Whereas the former seems to have been fully established by that time, the latter is simply beginning to be established as one lexical unit.

To conclude, in addition to advocating the use of corpora in any kind of historical analysis involving changes both in meaning and grammar, this study shows that in the LModE period many language changes were influenced not only by linguistic inherent processes, but also by some sociolinguistic, cultural and historical developments of the period. It also confirms that words that originally appear in very specific contexts (the nautical jargon in this particular case) can develop new meanings that will probably be present in common usage before a dictionary records it. However, at present technological advances are opening new possibilities for newly coined words to appear in dictionaries online much sooner than they did when the second edition of the *OED* was published.

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